Public Works and Government Services Canada

Travaux publics et Services gouvernementaux Canada

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 0A1/Noyau 0A1
Gatineau, Québec K1A 0S5
Bid Fax: (819) 997-9776

REQUEST FOR PROPOSAL
DEMANDE DE PROPOSITION

Proposal To: Public Works and Government Services Canada

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

Proposition aux: Travaux Publics et Services Gouvernementaux Canada

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

Comments - Commentaires

THIS DOCUMENT CONTAINS A SECURITY REQUIREMENT

Title - Sujet
GCC Rehabilitation

Solicitation No. - N° de l'invitation	**Date**
EP764-140495/A	2013-07-19

Client Reference No. - N° de référence du client
20140495

GETS Reference No. - N° de référence de SEAG
PW-$$FE-104-63138

File No. - N° de dossier	**CCC No./N° CCC - FMS No./N° VME**
fe104.EP764-140495	

Solicitation Closes - L'invitation prend fin
at - à 02:00 PM
on - le 2013-08-30

Time Zone
Fuseau horaire
Eastern Daylight Saving Time EDT

F.O.B. - F.A.B.
Plant-Usine: ☐ **Destination:** ☐ **Other-Autre:** ☐

Address Enquiries to: - Adresser toutes questions à:	**Buyer Id - Id de l'acheteur**
Leach, Lynn	fe104

Telephone No. - N° de téléphone	**FAX No. - N° de FAX**
(819) 956-0533 ( )	(819) 956-3160

Destination - of Goods, Services, and Construction:
Destination - des biens, services et construction:
Government Conference Centre (GCC)
2 Rideau Street
Ottawa, Ontario

Instructions: See Herein

Instructions: Voir aux présentes

Vendor/Firm Name and Address
Raison sociale et adresse du fournisseur/de l'entrepreneur

Delivery Required - Livraison exigée	**Delivery Offered - Livraison proposée**
See Herein	

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**

Issuing Office - Bureau de distribution
Consultant Services Division/Division des services d'experts-conseils
11 Laurier St./11 Rue Laurier
3C2, Place du Portage
Phase III
Gatineau, Québec K1A 0S5

Canada

THIS PROCUREMENT CONTAINS A SECURITY REQUIREMENT

REQUEST FOR PROPOSAL (RFP)

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SUPPLEMENTARY INSTRUCTIONS TO PROPONENTS (SI)

SI1 INTRODUCTION

1. Public Works and Government Services Canada (PWGSC) intends to retain an individual consulting firm or joint venture to provide the professional services for the project as set out in this Request for Proposal (RFP).

2. 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 proposal in two phases. Phase One proposals cover only the qualifications, experience and organization of the proposed Consultant Team. Following evaluation and rating of these 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 proposal. Phase Two proposals cover the detailed approach to the work, and the pricing and terms offered. A combination of the Phase One and Phase Two submissions constitutes the final proposal.

3. Initially, firms are invited to submit a 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 proposal, and evaluation and rating of Phase One 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**.

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);
   R1110T (2013-06-27), 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 / Terms of Reference;

(d) the document entitled "Doing Business with National Capital Area";

(e) the **Security Requirements Check List** (SRCL);

(f) any amendment to the solicitation document issued prior to the date set for receipt of Phase Two proposals;

(g) the proposal submitted at Phase One and Declaration/Certifications Form; and

(h) the proposal submitted at Phase Two and Price Proposal Form.

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 Phase One 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 ten (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).

SI5 CERTIFICATIONS

1. Code of Conduct and Certifications - Related Documentation

By submitting a proposal, the Proponent certifies that the Proponent and its affiliates are in compliance with the provisions as stated in Section GI1 Code of Conduct and Certifications - Proposal of R1110T (2013-06-27) General Instructions to Proponents (GI). The related documentation therein required will

assist Canada in confirming that the certifications are true.

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 (http://hrsdc.gc.ca/eng/labour/index.shtml) available from Human Resources and Skills Development Canada (HRSDC) -Labour's website.

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

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

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

SI6 SECURITY REQUIREMENT

1. Before award of a contract, the following conditions must be met:

   (a) the Proponent must hold a valid organization security clearance as indicated in Supplementary Conditions SC1;

   (b) the Proponent's proposed individuals requiring access to classified or protected information, assets or sensitive work site(s) must meet the security requirement as indicated in Supplementary Conditions SC1;

   (c) the Proponent must provide the name of all individuals who will require access to classified or protected information, assets or sensitive work sites.;

   (d) the Proponent's proposed location of service performance or document safeguarding must meet the security requirement as indicated in

Supplementary Conditions SC1;

(e) the Proponent must provide the address(es) of proposed location(s) of service performance or document safeguarding as indicated in the Declaration/Certifications Form.

2. Proponents are reminded to obtain the required security clearance promptly. Any delay in the award of a contract to allow the successful bidder to obtain the required clearance will be at the entire discretion of the Contracting Authority. Due to the demands of the Crown's completion schedule it is anticipated contract award will occur as soon as possible following the evaluation of proposals.

3. For additional information on security requirements, proponents should consult the "Security Requirements for PWGS Bid Solicitations - Instructions for Bidders" (http://www.tpsgc-pwgsc.gc.ca/app-acq/lc-pl/lc-pl-eng.html#a31) document on the Departmental Standard Procurement Documents 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.justice.gc.ca/en/E-5.401/index.html

Federal Contractors Program (FCP)
http://www.hrsdc.gc.ca/eng/labour/equality/fcp/index.shtml

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

Code of Conduct for Procurement
http://www.tpsgc-pwgsc.gc.ca/app-acq/cndt-cndct/contexte-context-eng.html

Consent to a Criminal Record Verification (PWGSC-TPSGC 229 form)
http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/formulaires-forms-eng.html

Lobbying Act
http://laws-lois.justice.gc.ca/eng/acts/L-12.4/index.html?noCookie

Contracts Canada
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

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 (2013-06-27), General Condition (GC) 1 - General Provisions
   R1215D (2011-05-16), General Condition (GC) 2 - Administration of the Contract
   R1220D (2011-05-16), General Condition (GC) 3 - Consultant Services
   R1225D (2012-07-16), General Condition (GC) 4 - Intellectual Property
   R1230D (2012-07-16), General Condition (GC) 5 - Terms of Payment
   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 (2012-07-16), General Condition (GC) 8 - Dispute Resolution
   R1250D (2012-07-16) R1650D (2012-07-16), General Condition (GC) 9 - Indemnification and Insurance
   Supplementary Conditions
   Agreement Particulars
   (c) Project Brief / Terms of Reference;
   (d) the document entitled "Doing Business with National Capital Area";
   (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) the Phase One proposal and Declaration/Certifications Form;
   (h) the Phase Two proposal and 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-c

onditions-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) Project Brief / Terms of Reference;
(h) the document entitled “Doing Business with National Capital Area”;
(i) the document entitled “**Security Requirement Check List**”;
(j) the proposal.

SUPPLEMENTARY CONDITIONS (SC)

SC1 SECURITY REQUIREMENT

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

SECURITY REQUIREMENT FOR CANADIAN SUPPLIER:
PWGSC FILE # EP764-140495 (REVISED 1)

1. The Consultant must, at all times during the performance of the Contract, hold a valid **Facility Security Clearance at the level of SECRET**, with approved **Document Safeguarding** at the level of **SECRE**T, issued by the Canadian Industrial Se-curity Directorate (CISD), Public Works and Government Services Canada (PWGSC).

2. The Consultant personnel requiring access to **CLASSIFIED** information, assets or sensitive work site(s) must **EACH** hold a valid **SECRET** clearance, all other personnel must hold a valid **RELIABILITY STATUS**, granted or approved by CISD/PWGSC.

3. The Consultant **MUST NOT** utilize its Information Technology systems to electronically process, produce or store any sensitive **CLASSIFIED**

information until CISD/PWGSC has issued written approval. After approval has been granted, these tasks may be performed at the level of **SECRET**.

4. Subcontracts which contain security requirements are **NOT** to be awarded without the prior written permission of CISD/PWGSC.

5. The Consultant must comply with the provisions of the:

   (a) Security Requirements Check List and security guide, attached at Appendix E;
   (b) Industrial Security Manual (Latest Edition).

2. Consultant's Site or Premises Requiring Safeguard Measures

The Consultant must diligently maintain up-to-date, the information related to the Consultant's site or premises, where safeguard measures are required in the performance of the Services, for the following addresses:

Address:
Street Number / Street Name, Unit / Suite / Apartment Number
City, Province, Territory
Postal Code

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) 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 (Construction Manager). The successful Contractor (Construction Manager) 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 (Construction Manager.

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 HRSDC-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 HRSDC 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: .....
.....
.....

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

II. Key Sub Consultants / Specialists:

Conservation Architect

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

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

APPENDIX A - TEAM IDENTIFICATION FORMAT (CONT'D)

Masonry Conservator

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

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

Structural Engineer (with heritage building conservation specialty)

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

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

Mechanical Engineer

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

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

APPENDIX A - TEAM IDENTIFICATION FORMAT (CONT'D)

Electrical Engineer

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

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

Security Specialist

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

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

Interior Designer

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

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

APPENDIX B - DECLARATION/CERTIFICATIONS FORM

Project Title:

Name of Proponent:

Street Address: **Mailing Address:**

Proponent's Proposed Site or premises Requiring Safeguard Measures (refer to SI6 Security Requirement):

Address:
_____
Street Number / Street Name, Unit / Suite / Apartment Number
_____
City, Province, Territory
_____
Postal Code

Telephone Number:( )

Fax Number: ( )

E-Mail:

Procurement Business Number:

Type of Organization:	**Size of Organization:**
_____ Sole Proprietorship _____ Partnership _____ Corporation _____ Joint Venture	Number of Employees _____ Graduate Architects / Professional Engineers _____ Other Professionals _____ Technical Support _____ Other _____

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 such request by Canada will also render the proposal non-responsive or will constitute a default under the contract.

For further information on the Federal Contractors Program for Employment Equity visit HRSDC-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 employees (combined work force includes: permanent full-time, permanent part-time and temporary employees [temporary employees only includes those who have worked 12 weeks or more during a calendar year and who are not full-time students]).

A5. The Proponent has a combined work force in Canada of 100 or more employees; and

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

( ) A5.1. The Proponent certifies already having a valid and current Agreement to Implement employment Equity (AIEE) in place with HRSDC-Labour.

OR

( ) A5.2. The Proponent certifies having submitted the Agreement to Implement Employment Equity (LAB1168) to HRSDC-Labour. As this is a condition to contract award, proceed to completing the form Agreement to Implement Employment Equity (LAB1168), duly signing it, and transmit it to HRSDC-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 to Proponents.)

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 with FPS, proponents must provide the information required below before contract award.

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.

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

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

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 Phase One proposal, but may be submitted afterwards as follows: if Appendix "B" is not completed and submitted with the proposal, the Contracting Authority will so inform the Proponent and provide the Proponent with a time frame within which to meet the requirement. Failure to comply with the request of the Contracting Authority and meet the requirement within that time period will render the proposal non-responsive.

APPENDIX C - PRICE PROPOSAL FORM

INSTRUCTIONS: Complete this Price Proposal Form and submit in a **separate sealed envelope** with the Name of Proponent, Name of Project, PWGSC Solicitation Number, and the words "PRICE PROPOSAL FORM" typed on the outside of the envelope. Price Proposals are not to include GST/HST.

PROPONENTS SHALL NOT ALTER THIS FORM

Project Title:

Name of Proponent:

The following will form part of the evaluation process:

REQUIRED SERVICES including all related costs, services and deliverables to complete the services as specified in the Project Brief and in the RFP documents:

- **Fixed Fee** (R1230D (2012-07-16), GC 5 - Terms of Payment)

	SERVICES	FIXED FEE
RS 1	Schematic Design (Analysis and Update)	$.....
	Abatement and Demolition (implementation strategy and temporary works)	$.....
	Schematic Design for BCC	$.....
	Schematic Design for Security	$.....
	Heritage Material Database and Heritage Material Management Protocols	$.....
RS 2	Design Development	$.....
	Abatement and Demolition	$.....
RS 6	Commissioning (supporting RS1 to RS 2)	$.....
RS 7	Estimating and Planning (supporting RS1 to RS2)	$.....
RS 8	Project Time Planning, Scheduling and Control (supporting RS1 to RS2)	$.....
RS 10	Bilingual Documents (supporting RS1 to RS2)	$.....
MAXIMUM FIXED FEES		**$.....**

OPTIONAL REQUIRED SERVICES, including all related costs, services and deliverables to complete the services specified in the Project Brief and in the RFP documents

The consultant hereby grants to Canada an irrevocable option to acquire the services specified under sections RS3 through RS10, under the same terms and conditions as contained in the Contract, and in accordance with the rates and fees identified below. Canada is not obliged to exercise this option. The option shall only be exercised by the Contracting Authority by providing notification in writing through a formal Contract Amendment.

- **Fixed Fee** (R1230D (2012-07-16), GC 5 - Terms of Payment)

	SERVICES	FIXED FEE
RS 3	Construction Documents	$.....
RS 4	Tender Call, Bid Evaluation & Construction Contract Award	$.....
RS 5	Construction and Contract Administration	$.....
RS 6	Commissioning (supporting RS3 to RS 5)	$.....
RS 7	Estimating and Planning (supporting RS3 to RS 5)	$.....
RS 8	Project Time Planning, Scheduling and Control (supporting RS3 to RS 5)	$.....
RS 10	Bilingual Documents	$.....
MAXIMUM FIXED FEES		**$.....** *(1)*

- **Time Based Fees** (R1230D (2012-07-16), GC 5 - Terms of Payment)

RS 9 - Resident Site Services *	ESTIMATED HOURS Column A	HOURLY RATES** Column B	TIME BASED FEE Columns AxB
Principal Resident site representative. (Senior Architect) based on 40 hours per week X 180 weeks	7,200	$.....	$.....
Assistant to Principal Resident site representative based on 40 hours per week X 180 weeks	7,200	$.....	$.....
MAXIMUM TIME BASED FEES			$..... *(2)*

* Payment will be based on actual hours spent. Travel time and/or expenses will not be reimbursed separately.
** All inclusive hourly rate is applicable to both normal working hours and any other shift work as required.

TOTAL FEE FOR OPTIONAL REQUIRED SERVICES (1) + (2) $.....

TOTAL COST OF SERVICES FOR PROPOSAL EVALUATION PURPOSES

Total Fee for Required Services $.....

Total Fee for Optional Required Services + $.....

Total Evaluated Fee $.....

The following will NOT form part of the evaluation process

Canada may accept or reject any of the following fees, disbursements and/or hourly rates. Canada reserves the right to negotiate on these fees, disbursements and/or hourly rates.

DISBURSEMENTS
At cost without allowance for mark-up or profit, supported by invoices/receipts - see clause R1230D (2012-07-16), GC 5 - Terms of Payment, section GC5.12

Disbursements:

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	$ 35,000
Bilingual Documents (beyond services stated in project brief and RS 10)	$ 15,000
Investigations and materials testing	$ 65,000
Other Disbursements	$ 25,000
MAXIMUM AMOUNT FOR DISBURSEMENTS	**$ 140,000**

APPENDIX C - PRICE PROPOSAL FORM (CONT'D)

THE FOLLOWING HOURLY RATES MAY BE USED FOR FUTURE CONTRACT AMENDMENTS

Principals

Name	$ per hour
.....	$.....
.....	$ .....
.....	$ .....
.....	$ .....
.....	$.....
.....	$ .....
.....	$ .....
.....	$ .....
.....	$.....
.....	$ .....
.....	$ .....
.....	$ .....
.....	$.....
.....	$ .....
.....	$ .....
.....	$ .....

…… $……

APPENDIX C - PRICE PROPOSAL FORM (CONT'D)

Staff

Name	Position	$ per hour
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

END OF PRICE PROPOSAL FORM

Appendix D

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Canada

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Last updated: Apr 8, 2013

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Appendix 'E'	Basic Reference Guide on Converting Construction Drawings into Portable Document Format (PDF), dated May 2005

SECTION 1 INTRODUCTION

This document must be used in conjunction with the Terms of Reference (TOR), as the two documents are complimentary. The TOR describes project-specific requirements while this document deals with information common to all projects. In case of a conflict between the two documents, the requirements of the TOR override this document.

SECTION 2 PWGSC NATIONAL CADD STANDARD

Drawings shall be in accordance with PWGSC National CADD Standards and Canadian Standards Association (CSA) B78.3.

Refer to:
http://www.tpsgc-pwgsc.gc.ca/biens-property/cdao-cadd/index-eng.html

The above link is subject to change. The Consultant shall check with the Project Manager to ensure that the link and related information are current and relevant with regards to PWGSC National CADD Standards.

SECTION 3 GUIDE TO PREPARATION OF CONSTRUCTION DOCUMENTS FOR PWGSC

1 Purpose

This document provides direction in the preparation of construction contract documents (namely specifications, drawings and addenda) for Public Works and Government Services Canada (PWGSC).

Drawings, specifications and addenda must be complete and clear, so that a contractor can prepare a bid without guesswork. Standard practice for the preparation of construction contract documents requires that:

- drawings are the graphic means of showing work to be done, as they depict shape, dimension, location, quantity of materials and relationship between building components.
- specifications are written descriptions of materials and construction processes in relation to quality, colour, pattern, performance and characteristics of materials, installation and quality of work requirements.
- Addenda are changes to the construction contract documents or tendering procedures, issued during the tendering process.

2 Principles of PWGSC Contract Documents

PWGSC's contract documents are based on common public procurement principles. PWGSC does not use Canadian Construction Document Committee (CCDC) documents.

The terms and conditions are prepared and issued by PWGSC as well as other related bidding and contractual documents. For information, the clauses are available on the following web site: **http://sacc.pwgsc.gc.ca/sacc/query-e.jsp**. Any questions should be directed to the Project Manager.

3 Quality Assurance

Consultants are required to undertake their own quality control process and must review, correct and coordinate (between disciplines) their documents before sending them to PWGSC.

SPECIFICATIONS

1 National Master Specification

The National Master Specification (NMS) is a master construction specification available in both official languages, which is divided into 48 Divisions and used for a wide range of construction and/or renovation projects. In preparing project specifications, the Consultant must use the current edition of the NMS in accordance with the “NMS User’s Guide”.

The Consultant retains overriding responsibility for content and shall edit, amend and supplement the NMS as deemed necessary to produce an appropriate project specification free from conflict and ambiguity.

2 Specification Organization

Narrowscope sections describing single units of work are preferred for more complex work, however, broadscope sections may be more suitable for less complex work. Use either the NMS 1/3 - 2/3 page format or the Construction Specifications Canada full-page format.

Start each Section on a new page and show Project Number, Section Title, Section Number and Page Number on each page. Specification date, project title, and consultant’s name are not to be indicated.

3 Terminology

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” or “equivalent to”, "to be determined on site by “Departmental Representative", should not be indicated in the specifications as this promotes inaccurate and inflated bids. Specifications must permit bidders to calculate all quantities and bid accurately. If quantities are impossible to identify (i.e. cracks to be repaired) give an estimated quantity for bid purposes (unit prices). Ensure that the terminology used throughout the specifications is consistent and does not contradict the applicable standard construction contract documents.

4 Dimensions

Dimensions are to be in metric only (no dual dimensioning).

5 Standards

As references in the NMS may not be up to date, it is the responsibility of the consultant to ensure that the project specification uses the latest applicable edition of all references quoted. The following is a list of some of the Internet websites which provide the most current publications of standards for reference in the construction specification document.

- CSA standards: http://www.csa.ca
- CGSB standards: http://www.pwgsc.gc.ca/cgsb
- ANSI standards: http://www.ansi.org
- ASTM Standards: http://www.astm.org
- ULC standards: http://www.ulc.ca
- General reference of standards: http://www.cssinfo.com

The NMS website (http://www.tpsgc-pwgsc.gc.ca/biens-property/ddn-nms/index-eng.html) also links to other documents references in the NMS under its "Links" feature.

6 Specifying Materials

The practice of specifying actual brand names, model numbers, etc., is against departmental policy except for special circumstances. The method of specifying materials shall be by using recognized standards such as those produced by Canadian Gas Association (CGA), Canadian General Standards Board (CGSB), Canadian Standards Association (CSA), and Underwriters' Laboratories of Canada (ULC), or by trade associations such as Canadian Roofing Contractors' Association (CRCA) and Terrazzo, Tile, Marble Association of Canada (TTMAC). Canadian standards should be used wherever possible.

If the above method cannot be used and where no standards exist, specify by a non-restrictive, non-trade name "prescription" or "performance" specifications.

In exceptional or justifiable circumstances or if no standards exist and when a suitable non-restrictive, non-trade name "prescription" or "performance" specification cannot be developed, specify by trade name. Include all known materials acceptable for the purpose intended, and in the case of equipment, identify by type and model number.

Acceptable Materials: set up the paragraph format as follows:

Acceptable Materials:

1. ABC Co. Model [_____].
2. DEF Co. Model [_____].
3. GHI Co. Model [_____].

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.

The term "Acceptable Manufacturers" should not be used, as this restricts competition and does not ensure the actual material or product will be acceptable. A list of words and phrases that should be avoided is included in the NMS User's Guide.

Sole Sourcing: Sole sourcing for materials and work can be used for proprietary systems (ie. fire alarm systems, EMCS systems). Substantiation and/or justification will be required.

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

"Designated Contractor

.1 Hire the services of [_____] to do the work of this section."

Wording for the sole source of EMCS systems should be in Part 1 as

"Designated Contractor

.1 Hire the services of [_____] or its authorized representative to complete the work of all EMCS sections."

and in Part 2 as "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 (ie. fire alarm systems) should be in Part 2 as:

"Acceptable materials

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

Prior to including sole source materials and/or work, the Consultant should contact the Project Manager to obtain the approval for the sole sourcing.

7 Unit Prices

Unit prices are used where the quantity can only be estimated (eg. earth work) and the approval of the Project Manager must be sought in advance of their use.

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.

In each applicable NMS section, replace paragraph title "Measurement for Payment" with "Unit Prices".

Sample of Unit Price Table:

The Unit Price Table designates the Work to which a Unit Price Arrangement applies.

(a) The Price per Unit and the Estimated Total Price must be entered for each Item listed.

(b) Work included in each item is 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 **Transfer amount to subparagraph 1)(b) of BA03**	

8 Cash Allowances

Construction contract documents should be complete and contain all of the requirements for the contractual work. Cash allowances are to be used only under exceptional circumstances (ie. utility companies, municipalities), where no other method of specifying is appropriate. Obtain approval from the Project Manager in advance to include cash allowances and then use "Section 01 21 00 - Allowances" of the NMS to specify the criteria.

9 Warranties

It is the practice of PWGSC to have a 12 month warranty and to avoid extending warranties for more than 24 months. When necessary to extend beyond the 12 month warranty period provided for in the General Conditions of the contract, 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 24 months.

- Where the extended warranty is intended to apply to a particular part of a specification section modify the above as follows: "For [_____] the 12 month ... [_____] months."

Delete all references to manufacturers' guarantees.

10 Scope of Work
No paragraphs noted as "Scope of Work" are to be included.

11 Summary and Section Includes in Part -1 General of Section
Do not use "Summary" and "Section Includes."

12 Related Sections
In every section of the specification at 1.1 "Related Sections": coordinate the list of related sections and appendices. Ensure co-ordination among the sections of the specification and ensure not to reference any section or appendices which do not exist.

13 Index
List all the plans and specification sections with correct number of pages, section names and correct drawing titles in the format shown in Appendix A.

14 Regional Guide
The Consultant should contact the Project Manager to obtain the region's requirements for Division 01 or other short form specifications as might be appropriate. For example, it is required in the National Capital Region that regional Section 01 00 10 - General Instructions be used on all projects.

15 Health and Safety
It is required that all project specifications include "Section 01 35 29.06 - Health and Safety Requirements." Confirm with the Project Manager to determine if there are any instructions to meet regional requirements.

16 Designated Substances Report
Include "Section 01 14 25 - Designated Substances Report"

17 Subsurface Investigation Reports
Subsurface Investigation Report(s) are to be included after Section 31 and the following paragraph should be added to Section 31:

Subsurface investigation report(s)

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

When the Project Manager 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 the provision of the Subsurface Investigation Report, the foundation information required by the National Building Code of Canada 2005 (Division C, Part 2, 2.2.4.6) shall be included on foundation drawings.

18 Experience and Qualifications

Remove experience and qualification requirements from specification sections.

19 Prequalification and Pre-award submissions

Do not include in the specification 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 Project Manager.

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

20 Contracting Issues

Specifications describe the workmanship and quality of the work. Contracting issues should not appear in the specifications. Division 00 of the NMS is not used for PWGSC projects.

Remove all references within the specifications, to the following:

- General Instructions to Bidders
- General Conditions
- CCDC documents
- Priority of documents
- Security clauses
- Terms of payment or holdback
- Tendering process
- Bonding requirements
- Insurance requirements
- Alternative and separate pricing
- Site visit (Mandatory or Optional)
- Release of Lien and deficiency holdbacks

DRAWINGS

1 Title Blocks

Use PWGSC title block for drawings and sketches (including addenda).

2 Dimensions

Dimensions are to be in metric only (no dual dimensioning).

3 Trade Names

Trade names on drawings are not acceptable. Refer to SECTION 3, SPECIFICATIONS, 6.0 Specifying Materials for specifying materials by trade name.

4 Specification Notes

No specification type notes are to appear on any drawing.

5 Terminology

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” or “equivalent to”, "to be determined on site by “Departmental Representative", should not be indicated in the specifications as this promotes inaccurate and inflated bids. Specifications must permit bidders to calculate all quantities and bid accurately. If quantities are impossible to identify (i.e. cracks to be repaired) give an estimated quantity for bid purposes (unit prices). Ensure that the terminology used throughout the specifications is consistent and does not contradict the applicable standard construction contract documents.

6 Information to be included

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

7 Drawing Numbers: Number drawings in sets according to the type of drawing and the discipline involved as follows (The requirements of SECTION 2 PWGSC NATIONAL CADD STANDARD will supercede these requirements, where warranted).

During the Design Phase of the project each submission and review must be noted on the Notes block of the drawing title, but at the time of construction document preparation, all revision notes should be removed.

Discipline	Drawing
Demolition	D1, D2, etc.
Architectural	A1, A2, etc.
Civil	C1, C2, etc.
Landscaping	L1, L2, etc.
Mechanical	M1, M2, etc.
Electrical	E1, E2, etc.
Structural	S1, S2, etc.
Interior Design	ID1, ID2, etc.

8 **Presentation Requirements:** Present drawings in sets comprising the applicable demolition, architectural, structural, mechanical and electrical drawings in that order. All drawings should be of uniform standard size.

9 **Prints:** Print with black lines on white paper. Blue prints are acceptable for document submissions at 33%, 66% and 99% stages. Confirm with Project Manager the size of prints to be provided for review purposes.

10 **Binding:** Staple or otherwise bind prints into sets. Where presentations exceed 20 sheets, the drawings for each discipline may be bound separately for convenience and ease of handling.

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

12 **Schedules:** Where schedules occupy entire sheets, locate them next to the plan sheets or at the back of each set of drawings for convenient reference. *See CGSB 33-GP-7 Architectural Drawing Practices for schedule arrangements.*

13 **North Points:** On all plans include a north point. 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.

14 **Drawing Symbols:** Follow generally accepted drawing conventions, understandable by the construction trades, and in accordance with PWGSC publications.

ADDENDA

1 Format

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

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

No Consultant information (name, address, phone #, consultant project # etc.) should appear in the addendum or its attachments (except on sketches).

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.

DOCUMENTATION

Translation

When required, all documentation included in the construction contract documents shall be in both official languages.

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

Consultant shall provide:

- Per construction document submission, a completed and signed Checklist for the Submission of Construction Documents. See Appendix 'A'.
- Specification: originals printed one side on 216 mm x 280 mm white bond paper.
- Index: as per Appendix 'C'
- Addenda (if required): as per Appendix 'B' (to be issued by PWGSC).
- Drawings: reproducible originals, sealed and signed by the design authority.
- Tender information:
  - Including a description of all units and estimated quantities to be included in unit price table.
  - Including a list of significant trades including costs. PWGSC will then determine which trades, if any, will be tendered through the Bid Depository.
  - Government Electronic Tendering System (MERX): Consultants to provide an electronic true copy of the final documents (specifications and drawings) on one or multiple CD-ROM in Portable Document Format (PDF) without password protection and printing restrictions. The electronic copy of drawings and specifications is for bidding purposes only and do not require to be signed and sealed. See Appendix 'D' and Appendix 'E'.

PWGSC shall provide:

- General and Special Instructions to Bidders
- Bid and Acceptance Form
- Standard Construction Contract Documents

SECTION 4 CLASSES OF CONSTRUCTION COST ESTIMATES USED BY PWGSC

DESCRIPTION OF THE CLASSES OF ESTIMATES USED BY PWGSC FOR CONSTRUCTION COSTING OF BUILDINGS PROJECTS

Class 'D' (Indicative) Estimate:

Based upon a comprehensive statement of requirements, and an outline of potential solutions, this estimate is to provide an indication of the final project cost, and allow for ranking all the options being considered.

Submit Class D cost estimates in elemental cost analysis format latest edition issued by the Canadian Institute of Quantity Surveyors with cost per m² for current industry statistical data for the appropriate building type and location. Include a summary in the cost estimate, plus full back up, showing items of work, quantities, unit prices, allowances and assumptions.

The level of accuracy of a class D cost estimate shall be such that no more than a 20% contingency allowance is required.

Class 'C' Estimate:

Based on a comprehensive list of requirements and assumptions, including a full description of the preferred schematic design option, construction/design experience, and market conditions. This estimate must be sufficient for making the correct investment decision.

Submit Class C cost estimates in elemental cost analysis format latest edition issued by the Canadian Institute of Quantity Surveyors with cost per m² for current industry statistical data for the appropriate building type and location. Include a summary in the cost estimate, plus full back up, showing items of work, quantities, unit prices, allowances and assumptions.

The level of accuracy of a class C cost estimate shall be such that no more than a 15% contingency allowance is required.

Class 'B' (Substantive) Estimate:

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

Submit Class B cost estimates in elemental cost analysis format latest edition issued by the Canadian Institute of Quantity Surveyors. Include a summary in the cost estimate, plus full back up, showing items of work, quantities, unit prices, allowances and assumptions.

The level of accuracy of a class B cost estimate shall be such that no more than a 10% design contingency allowance is required.

Class 'A' (Pre-Tender) Estimate:

Based on completed construction drawings and specifications prepared prior to calling competitive tenders. This estimate must be sufficient to allow a detailed reconciliation/negotiation with any contractor's tender.

Submit Class A cost estimates in both elemental cost analysis format and trade divisional format latest edition issued by the Canadian Institute of Quantity Surveyors. Include a summary in the cost estimate, plus full back up, showing items of work, quantities, unit prices, allowances and assumptions.

The level of accuracy of a class A cost estimate shall be such that no more than a 5% design contingency allowance is required.

SECTION 5 TIME MANAGEMENT

1 Time Management, Planning, and Control

The Time Management, Planning, and Control Specialist (scheduler) shall provide a Project Planning and Control System (Control System) for Planning, Scheduling, Progress Monitoring and Reporting and a Time Management, Planning, and Control Report (Progress Report). It is required that a fully qualified and experienced Scheduler play a major role in providing services in the development and monitoring of the project schedule.

The scheduler will follow good industry practices for schedule development and maintenance as recognized by the Project Management Institute (PMI).

PWGSC presently utilizes the Primavera Suite software and MicroSoft Project for it's current Control Systems and any software used by the consultant should be fully integrated with these, using one of the many commercially available software packages.

1.1 Schedule Design

Project Schedules are used as a guide for execution of the project as well as to communicate to the project team when activities are to happen, based on network techniques using Critical Path Method (CPM).

When building a Control System you must consider:

1. The level of detail required for control and reporting;
2. The reporting cycle- monthly and what is identified in the Terms of Reference, but also includes Exception Reports;
3. That the duration must be in days;
4. What is required for reporting in the Project Teams Communications Plan and
5. The nomenclature and coding structure for naming and reporting requirements of activities, schedules and reports.

1.2 Schedule Development

For purposes of monitoring and reporting of project progress and ease of schedule review it is important to maintain a standard for all schedules and reports starting with the Work Breakdown Structure (WBS), identification of Milestones, naming of activities as well as schedule outputs and paper sizing and orientation.

Work Breakdown Structure

When developing the schedule the consultant needs to use PWGSC standards and practices. Two basic requirements are the National Project Management System

(NPMS) and a Work Breakdown Structure (WBS), structured supporting the NPMS (Levels 1-4).

The WBS is as follows:

- Level 1 Project Title (NPMS)
- Level 2 Project Stage (NPMS)
- Level 3 Project Phase (NPMS)
- Level 4 Processes to meet Deliverables/Control Points Milestones (NPMS)
- Level 5 Sub-Processes and Deliverables in support of Level 4
- Level 6 Discrete activities. (Work Package)

Not all the Stages, Phases and Processes in the NPMS will be required on all the projects, however the structure remains the same.

Major and Minor Milestones

The Major Milestones are standard Deliverables and Control Points within NPMS and are required in all schedule development. These Milestones will be used in Management Reporting within PWGSC as well as used for monitoring project progress using Variance Analysis. The Minor milestones are process deliverables (Level 4) or sub-process deliverables (level 5) also used in Variance Analysis.

Each Milestone will also be assigned appropriate coding for Status Reporting and Management Reporting.

Milestones must have zero duration and are used for measuring project progress.

Milestones may also be external constraints such as the completion of an activity, exterior to the project, affecting the project.

Activities

All activities will need to be developed based on Project Objectives, Project Scope , Major and Minor Milestones, meetings with the project team and the scheduler's full understanding of the project and it's processes.

Subdivide the elements down into smaller more manageable pieces that organize and define the total scope of work in Levels 5-6 that can be scheduled, costed, monitored and controlled. This process will develop the Activity List for the project.

Each activity is a discrete element of work and is the responsibility of one person to perform.

Each activity will describe the work to be performed using a verb and noun combination (i.e. Review Design Development Report).

Activities should not have durations longer that 2 update cycles, with exception of activities not yet defined in a "Rolling Wave".

Each activity will be assigned at WBS level 6 and appropriately coded for Status Reporting and Management Reporting.

These elements will become activities, interdependently linked in Project Schedules.

Project Logic

Once the WBS, Milestones and Activity List have been developed the activities and milestones can be linked in a logical manner starting with a Project Start Milestone. Every activity and milestone must be linked in a logical manner using either a Finish to Start (FS), Finish to Finish (FF), Start to Start (SS) or Start to Finish (SF) relationship. There can be no open-ended activities or milestones.

A Finish to Start (FS) is the preferred relationship.

When developing relationships avoid the use of lags and constraints in place of activities and logic.

Activity Duration

The activity duration (in days) is the estimated length of time it will take to accomplish a task.

Consideration needs to be taken in how many resources are needed and are available, to accomplish any activity. (Example: availability of Framers during a “Housing Boom”.) Other factors are the type or skill level of the available resources, available hours of work, weather etc.

There will be several types of lists and schedules produced from this process, which will form part of the Progress Report.

Activity List

An Activity List identifies all activities including milestones required to complete the whole project.

Milestone List

A Milestone List identifies all project Major and Minor milestones.

Master Schedule

A Master Schedule is a schedule used for reporting to management at WBS level 4 and 5 that identifies the major activities and milestones derived from the detailed schedule. Cash Flow projections can be assigned at WBS level 5 for monitoring the Spending Plan.

Detailed Project Schedule

A Detailed Project Schedule is a schedule in reasonable detail (down to WBS Level 6 and 7) for progress monitoring and control, this will ensure that the schedule shall be in sufficient detail to ensure adequate planning and control.

1.3 Schedule Review and Approval

Once the scheduler has identified and properly coded all the activities; put them into a logical order and then determined the appropriate durations. The scheduler can then analyze the schedule to see if the milestone dates meet the contractual requirements and then adjust the schedule accordingly by changing durations, resource leveling or changing logic.

When the schedule has been satisfactorily prepared the scheduler can present the detailed schedule to the Project Team for approval and be Baselined. There may be several iterations before the schedule meets with the Project Teams agreement and the contractual requirements.

The final agreed version must be copied and saved as the Baseline to monitor variances for reporting purposes.

1.4 Schedule Monitoring and Control

Once Baselined the schedule can be better monitored, controlled and reports can be produced.

Monitoring is performed by, comparing the baseline activities % complete and milestone dates to the actual and forecast dates to identify the variance and record any potential delays, outstanding issues and concerns and provide options for dealing with any serious planning and scheduling issues in report form.

Analyze and report from early start sequence on all activities due to start, underway, or finished for the complete project.

Thee will be several reports generated from the analysis of the baseline schedule and will form part of the Time Management Report in the Required Services Sections (RS)

Progress Reports

A Progress Report reflects the progress of each activity to the date of the report, any logic changes, both historic and planned, projections of progress and completion the actual start and finish dates of all activities being monitored.

The Progress Report includes:

A Narrative Report, detailing 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 Detail Schedule, and Critical Paths.

Narrative reporting begins with a statement on the general status of the project followed by a summarization of delays, potential problems and project status criticality, any

potential delays, outstanding issues and concerns and options for dealing with any serious planning and scheduling issues.

A Variance Report, with supporting schedule documentation, detailing the work performed to date, comparing work progress to planned. This report should summarize the progress to date, explaining all causes of deviations and delays and the required actions to resolve delays and problems with respect to the Detail Schedule, and Critical Paths.

A Criticality Report identifying all activities and milestones with negative, zero and up to five days Total Float used as a first sort for ready identification of the critical, or near critical paths through the entire project.

Included in the Progress Report as attachments are: WBS chart, Activity Lists, Milestone Lists, Master Schedules, Detailed Project Schedule

Exception Report

The Scheduler is to provide continuous monitoring and control, timely identification and early warning of all unforeseen or critical issues that affect or potentially affect the project.

If unforeseen or critical issues arise, the Scheduler will advise the Project Manager and submit proposed alternative solutions in the form of an Exception Report.

An Exception Report will include sufficient description and detail to clearly identify:

1. Scope Change: Identifying the nature, reason and total impact of all identified and potential project scope changes affecting the project.
2. Delays and accelerations: Identifying the nature, the reason and the total impact of all identified and potential duration variations.
3. Options Enabling a Return to the project baseline: Identifying the nature and potential effects of all identified options proposed to return the project within baselined duration.

1.5 Standard Submissions

At each submission or deliverable stage provide a complete and updated Progress Report, the contents of each report will vary with requirements and at each project phase. Typically a Progress Report has:

1. Executive Summary;
2. Narrative Report;
3. Variances Report;
4. Criticality Report;
5. Exception Report (as required)
6. Work Breakdown Structure Chart;
7. Activity List;
8. Milestone List;
9. Master Schedule with Cash Flow Projections;
10. Detail Project Schedule (Network Diagram or Bar Charts);

1.6 Schedule Outputs and Reporting Formats

The sheet sizing and orientation is more a suggestion that a role, changes to the paper format may vary to accommodate the information and column information required.

Progress Reports

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 generated in the D.S.S.

Variance Report Columns: Activity ID, Activity Name, Planned Finish, Revised Finish, Variance, Activity % Complete,

Criticality Report Columns: Activity ID, Activity Name, Duration, Start, Finish, Activity % Complete, Total Float.

Exception Reports

Paper Size: Letter
Paper Format: Portrait
Title Format: Project Title; Report Type; Print Date; Data Date; Revision
Body Text: Narrative to match other reports generated in the D.S.S.

Paper Size: Letter
Paper Format: Landscape
Title Format: Project Title; Report Type; Print Date; Data Date; Revision
Columns: Activity ID, Activity Name, Duration, Remaining Duration, Start, Finish, Total Float.
<u>Work Breakdown Structure (indent tree):</u>

Paper Size: Letter
Paper Format: Portrait
Columns: WBS Code, WBS Name, Duration, Cost estimate, start and finish dates.
Footer Format: Project Title; Report Type; Print Date; Data Date; Revision Block

Activity Lists

Paper Size: Letter
Paper Format: Portrait
Columns: Activity ID, Activity Name, Start, Finish, Predecessor, Successor.
Footer Format: Project Title; Report Type; Print Date; Data Date; Revision Block

Sort with Early Start, then Early Finish, then Activity ID and with the WBS.

Milestone Lists

Paper Size: Letter
Paper Format: Portrait

Footer Format: Project Title; Report Type; Print Date; Data Date; Revision Block
Columns: Activity ID, Activity Name, Start, Finish.

Sort with Early Start, then Early Finish, then Activity ID and without the WBS.

Master Schedule (Bar Chart)

Paper Size: 11X17
Paper Format: Landscape
Footer Format: Project Title; Report Type; Print Date; Data Date; Revision Block
Columns: Activity ID, Activity Name, Duration, Activity % Complete, Start, Finish, Total Float.

Sort with Early Start, then Early Finish, then Activity ID and with the WBS.

Detailed Project Schedules (Bar Chart)

Paper Size: 11X17
Paper Format: Landscape
Footer Format: Project Title; Report Type; Print Date; Data Date; Revision Block
Columns: Activity ID, Activity Name, Duration, Activity % Complete, Start, Finish, Total Float.

Sort with Early Start, then Early Finish, then Activity ID and with the WBS.

APPENDIX 'A' - Checklist for the Submission of Construction Documents to PWGSC

Last updated November 21, 2012

Date:	
Project Title:	**Project Location:**
Project Number:	**Contract Number:**
Consultant's Name:	**PWGSC Project Manager:**
Review Stage: 66% 99% 100%	

Item	Verified by:	Comments:	Action by:
Specifications:			
1 National Master Specifications			
1a The current edition of the NMS has been used.			
1b Sections have been included for all work identified on drawings and sections edited.			
2 Specification Organization			
2a Either the NMS 1/3 - 2/3 page format or the Construction Specifications Canada full page format is used.			
2b Each Section starts on a new page and the Project Number, Section Title, Section Number and Page Number show on each page.			
2c Specification date and consultant's name are not indicated.			
3 Terminology			
3a The term Departmental Representative is used instead of Engineer, PWGSC, Owner, Consultant or Architect.			
3b 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.			
4 Dimensions			
4a Dimensions are provided in metric only.			
5 Standards			
5a The latest edition of all references quoted is used.			

6 Specifications Materials			
6a The method of specifying materials uses recognized standards. Actual brand names and model numbers are not specified.			
6b Materials are specified using standards and performance criteria (if not, the correct form of acceptable materials has been used).			
6c Identify if non-restrictive, non-trade name “prescription” or “performance” specifications are used.			
6d Indicate if a list of acceptable materials have been used.			
6e The term “Acceptable Manufacturers” is not used.			
6f No sole sourcing has been used.			
6g If sole sourcing has been used, the correct wording has been used and a justification provided to RPCD for the sole sourced products.			
7 Unit Prices			
7a Unit prices are used only for work that is difficult to estimate.			
8 Cash Allowances			
8a Indicate if cash allowances have been used.			
9 Warranties			
9a Indicate if warranties extend more than a 12 or 24 months period.			
9b Manufacturers guarantees are not indicated.			
10 Scope of Work			
10 No paragraphs noted as “Scope of Work” are included.			
11 Summary and Section Includes			
11a In part 1 of section, paragraphs “Summary” and “Section Includes” are not used.			
12 Related Sections			
12a The list of related sections and appendices are coordinated.			
13 Index			
13a The index shows a complete list of plans and specification sections with the correct number of pages and correct drawing titles and section names.			
14 Regional Guide Specifications			
14a General Instructions is included (Section 01 00 10 in the NCA).			

15 Health and Safety			
15a Section 01 35 29.06 - Health and Safety Requirements is included.			
16 Designated Substances Report			
16 a Section 01 14 25 - Designated Substances Report is included.			
***17* Subsurface Investigation Reports**			
17a Subsurface Investigation Reports are included in Division 31.			
18 Experience and qualifications			
18a Experience and qualification requirements do not appear in the specification sections			
19 Pre-qualifications			
19a There are no mandatory contractor and/or subcontractor pre-qualification requirements or references to certificates, transcripts or license numbers of a trade or subcontractor being included in the bid.			
20 Contracting Issues			
20a Contracting issues do not appear in the specifications.			
20b Division 00 of the NMS is not used.			
21 Quality Issues			
21a There are no specification clauses with square brackets "[ ]" or lines "__" indicating that the document is incomplete or missing information.			

Item	Verified by:	Comments:	Action By:
Drawings:			
1 Title Blocks			
1a The PWGSC title block is used.			
2 Dimensions			
2a Dimensions are provided in metric only.			
3 Trade Names			
3a Trade names are not used.			
4 Specification Notes			
4a There is no specification type notes.			
5 Terminology			
5a The term Departmental Representative is used instead of Engineer, PWGSC, Owner,			

Consultant or Architect.			
5b 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.			
6 Information to be included			
6a Architectural and Engineering Drawings have been stamped and signed by the design authority.			
6b The project quantity and configuration, dimensions and construction details are included.			
6c References to future work and elements not in contract do not appear or are kept to an absolute minimum and clearly marked.			

I confirm that the plans 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' - Sample of Addendum

Last updated April 22, 2008

ADDENDUM No. _____

Project Number: _____

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

DRAWINGS

SPEC NOTE: indicate drawing number and title, then list changes or indicate revision number and date, and re-issue drawing with addendum.

1 A1 Architectural

.1

SPECIFICATIONS

SPEC NOTE: indicate section number and title.

1 Section 01 00 10 - General Instructions

SPEC NOTE: list all changes (i.e. delete, add or change) by article or paragraph

.1 Delete article (xx) entirely.
.2 Refer to paragraph (xx.x) and change ...

2 Section 23 05 00 - Common Work Results - Mechanical

.1 Add new article (x) as follows:

APPENDIX 'C' - Sample of Index

Last updated April 22, 2008

Project No: _____

Index
Page 1 of ___

DRAWINGS AND SPECIFICATIONS

DRAWINGS:

SPEC NOTE: List all Drawings by number and title.

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

SPECIFICATIONS:

SPEC NOTE: List all Divisions, Sections (by number and title) and number of pages.

DIVISION	SECTION	NO. OF PAGES
DIVISION 01	01 00 10 - General Instructions.....	xx
	01 14 25 - Designated Substances Report.....	xx
	01 35 30 - Health and Safety.....	xx
DIVISION 23	23 xx xx	
DIVISION 26	26 xx xx	

APPENDIX 'D'

USER MANUAL ON DIRECTORY STRUCTURE AND NAMING CONVENTION STANDARDS FOR CONSTRUCTION TENDER DOCUMENTS ON CD ROM

Issued by:

Real Property Contracting Directorate

PWGSC

May 2005

Last Updated: June 3, 2008

Version 1.0

PREFACE

The Government of Canada (GoC) has committed to move towards an electronic environment for the majority of the services it offers. This covers the advertisement and distribution of contract opportunities, including construction solicitations. As a result, it is necessary to obtain a copy of construction drawings and specifications (in PDF format ***without*** password protection) on one or multiple CD-ROM to facilitate for the GoC the transfer of the construction drawings and specifications electronically to the Government Electronic Tendering System (GETS).

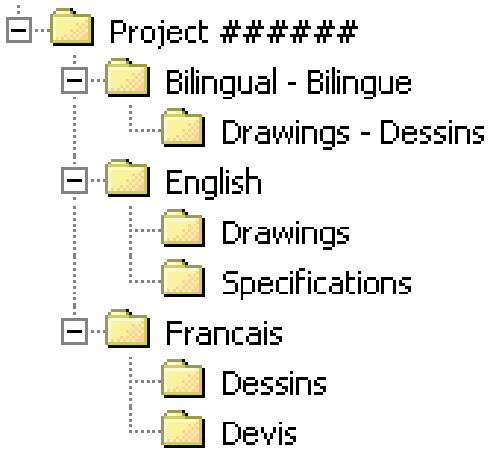
There is therefore a need to adopt a common directory structure and file-naming convention to ensure that the information made available to contractors electronically and in hard (printed) copy is in accordance with the sequence adopted in the real property industries, both for design and construction. This manual defines the standard to be followed by both consultants and print shops at time of formatting and organizing the information, whether drawings and specifications are created by scanning print documents or saved as PDF files from the native software (AutoCAD, NMS Edit, MS-Word, etc…) in which these were created.

It is important to note that the procedure described in this manual is not an indication that consultants are relieved from following the established standards for the production of drawings and specifications. The sole purpose of this manual is to provide a standard for the organization and naming of the electronic files that will be recorded on CD-ROM.

1. DIRECTORY STRUCTURE

1.1 1st, 2nd and 3rd Tier Sub-Folders

Each CD-ROM, whether it is for the original solicitation (tender call) or for an amendment (addendum), must have the applicable elements of the following high-level Directory Structure created:



The following important points are to be noted about the Directory Structure:

- The "*Project ######*" folder is considered the 1st Tier of the Directory Structure 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;

- The "*Bilingual - Bilingue*", "*English*" and "*Français*" folders are considered the 2nd Tier of the Directory Structure. The folders of the 2nd Tier **cannot** be given any other names since 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 sub-folders of the 3rd Tier;

- The "*Drawings - Dessins*", "*Drawings*", "*Specifications*", "*Dessins*" and "*Devis*" folders are considered the 3rd Tier of the Directory Structure. 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.

IMPORTANT:	The applicable elements of the Directory Structure (1st, 2nd and 3rd Tier folders) are always required and cannot be modified.

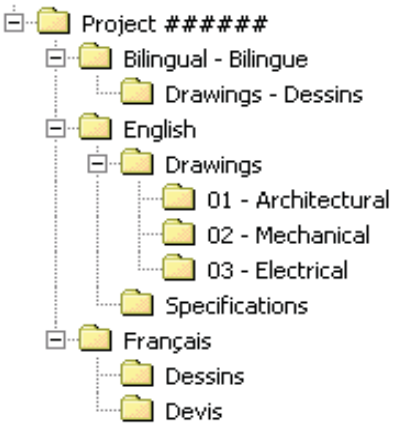
1.2 4th Tier Sub-Folders for Drawings

The "*Drawings – Dessins*", "*Drawings*" and "*Dessins*" folders must have 4th Tier sub-folders created to reflect the various disciplines of the set of drawings.

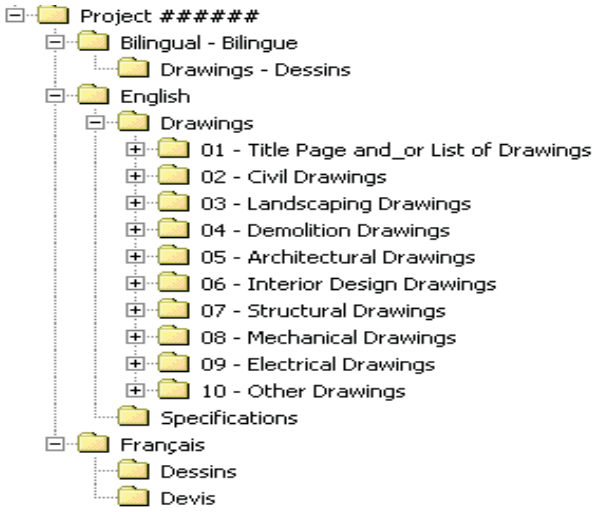
Because the order of appearance of the sub-folders on the screen will also determine the order of printing, it is necessary to start with a number the identification name of the sub-folders in the "*Drawings – Dessins*", "*Drawings*" and "*Dessins*" folders.

Note: The first sub-folder 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.

Examples of 4th Tier sub-folders for drawings:



or



1.2.1 Naming Convention

The 4th Tier sub-folders for drawings must adhere to the following standard naming convention.

For the "*Drawings*" and "*Dessins*" folders:

- 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 - Électricité

It should be noted that the numbering of the 4th Tier sub-folders is for sorting purposes only and is not tied to a specific discipline. For example, "*Architectural*" could be numbered 05 for a project where there is four other disciplines before "*Architectural*" in the set of drawings or 01 in another project where it's the first discipline appearing in the set.

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

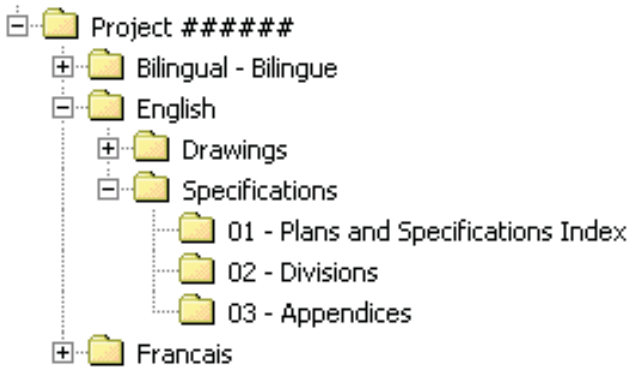
- The alphanumerical sorting is done on an ascending order;
- The alphanumerical order of the sub-folders determines the order of appearance on the screen as well as the order of printing (as an example: all the drawing PDF files in the 01 sub-folder will be printed in alphanumerical order before the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

1.3 4th Tier Sub-Folders for Specifications

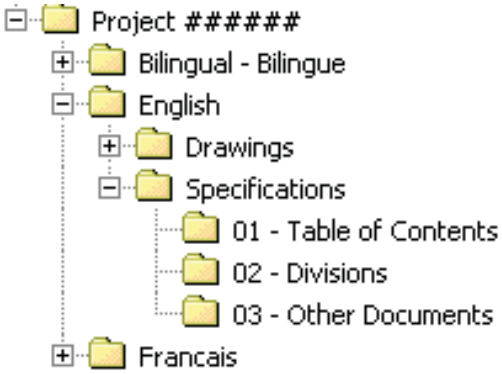
The "*Specifications*" and "*Devis*" folders must have 4th Tier sub-folders created to reflect the various elements of the specifications.

Because the order of appearance of the sub-folders on the screen will also determine the order of printing, it is necessary to start with a number the identification name of the sub-folders in the "*Specifications*" and "*Devis*" folders.

Examples of 4th Tier sub-folders for specifications:



or



1.3.1 Naming Convention

The 4th Tier sub-folders 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

It should be noted that the numbering of the 4th Tier sub-folders 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 sub-folders 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 sub-folder will be printed, in alphanumerical order before the PDF files in the 02 sub-folder, etc…);
- Each specifications PDF file within each sub-folder 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…).

2. 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 sub-folder of the Directory Structure.

2.1 Drawings

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

X### - Y

Where:

X =	The letter or letters from the drawing title block ("*A*" for Architectural 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 sub-folders must be named with the same letter ("*A*" for Architectural 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 sub-folder 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 sub-folder, 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.

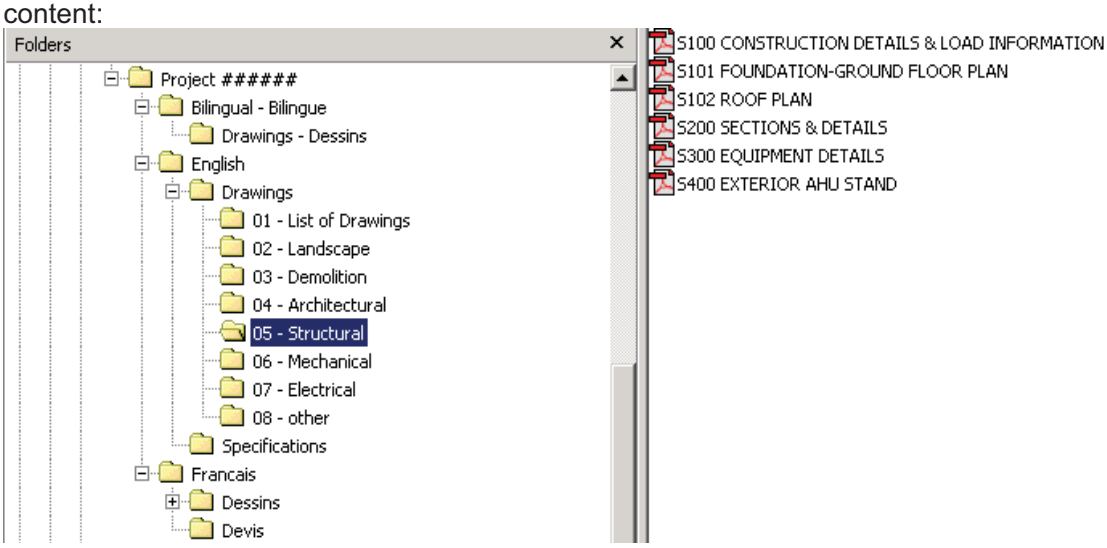
  ## - Y

  Where:

## =	A two digit number ranging from 01 to 99 (leading zeros must be included)
Y =	The name of the drawing
Example:	01 - Title Page 02 - List of Drawings

  If numbers are not used in the PDF files name, "*List of Drawings*" will be displayed before "*Title Page*" because "L" comes before "T" in the alphabet.

Example of a 4th Tier Drawings sub-folder's content:



2.2. 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 Plans 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.

2.2.1 Documents other than Specifications Divisions

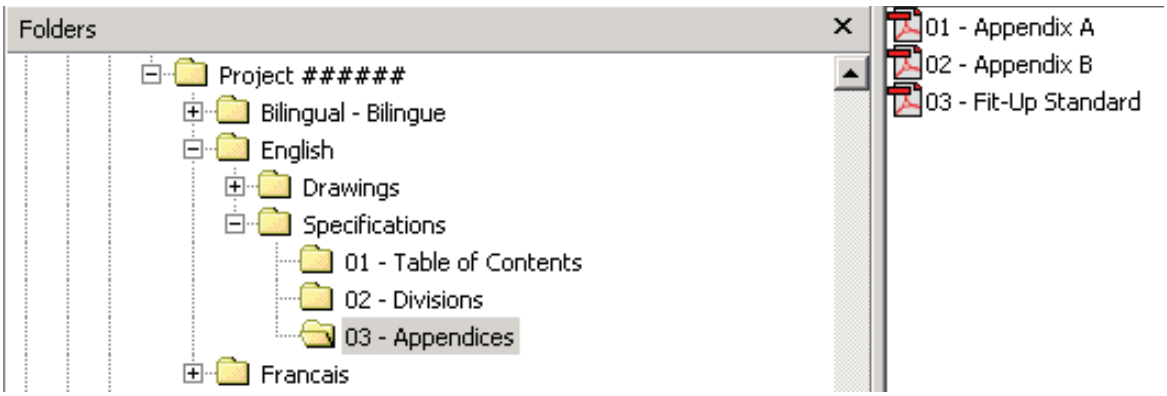
Because PDF files within the Specifications sub-folders are sorted alphanumerically (in ascending order) for both on screen display and printing order, all files that appear in folders other than the "*Divisions*" sub-folder must be named using a number:

- Y

Where:

## =	Two digit number ranging from 01 to 99 with leading zeros required
Y =	Name of the document
Example:	01 - Plans and Specifications Index

Example of a sub-folder content (sub-folder other than "*Divisions*"):



2.2.2 Specifications Divisions

The Specifications Divisions must be named as follows:

Division ## - Y

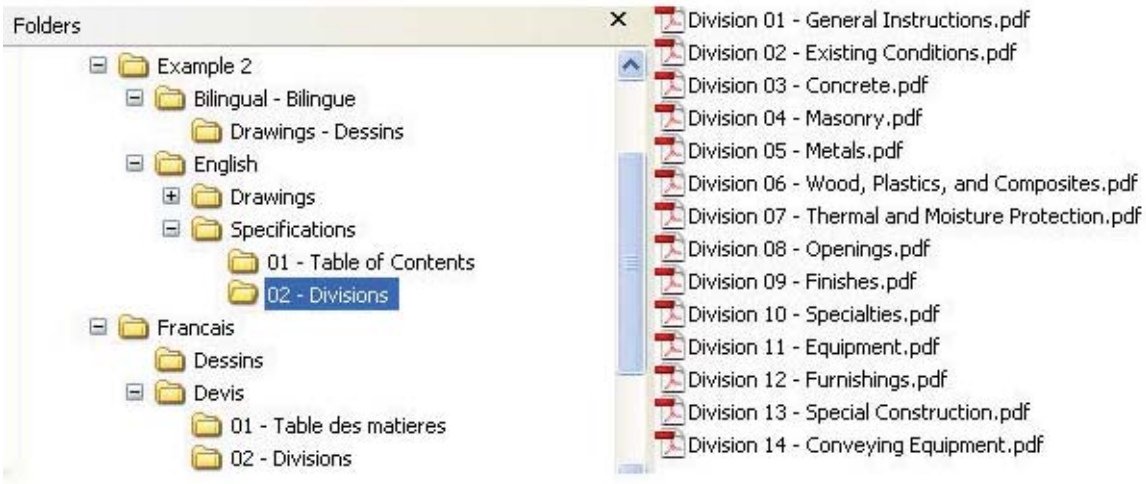
Where:

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 following important point about specifications is to be noted:

- 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.

Example of a "*Divisions*" sub-folder content:



3. CD-ROM LABEL

Each CD-ROM is to be labeled with the following information:

Project *Number* / *Numéro* de projet
Project Title / *Titre du projet*
Documents for Tender / Documents pour appel d'offres
CD *X* of/de *X*

Example:

Project 123456 / Projet 123456
Repair Alexandra Bridge / Réparation du pont Alexandra

APPENDIX 'E'

BASIC REFRENCE GUIDE ON CONVERTING CONSTRUCTION DRAWINGS INTO PORTABLE DOCUMENT FORMAT (PDF)

Issued by:

Real Property Contracting Directorate

PWGSC

May 2005Last Updated: May 3, 2005

Version 1.0

PREFACE

Portable Document Format (PDF) is the standard format for documents that are posted on the Government Electronic Tendering System (GETS). There is therefore a need to obtain from architectural and engineering consultants an electronic copy of drawings and specifications in PDF for tendering Government of Canada (GoC) construction projects.

In order to have the highest quality in term of resolution and printing, consultants should to the greatest extent possible have the PDF drawing and specification files derived from the native software in which they were created. Scanning is permissible but only in special circumstances, for example when there is no electronic version of a drawing being included in a construction tender package.

The purpose of this document is to provide basic information on the conversion of Computer Aided Design and Drafting (CADD) drawings in PDF. Creating a PDF file from a CADD drawing is a relatively simple process once all the necessary configurations and settings are in place. It actually should not take any longer than it would take to create a plot file or to send a drawing to a printer. The information in this guide is not intended to cover all technical aspects of the conversion, which can be done using various methods, but rather to highlight important points about the process and file settings. The conversion of specifications is not covered in this basic reference guide since it does not require any special configuration or setting.

The information provided in this basic reference guide is not an indication that consultants are relieved from following the established standards for the production of drawings and specifications. The sole purpose of this guide is to provide basic information on the PDF conversion process bearing in mind that additional detailed technical information is available from the various software manufacturers.

1. PRINTER DRIVERS

Adobe Acrobat provides two different printer drivers that are able to convert CADD drawing into PDF format, Acrobat PDF Writer and Acrobat Distiller. Before creating a PDF file from a CADD drawing, a choice must be made as to which one will be used.

Acrobat PDF Writer is a non-PostScript printer driver that works best with documents that don't contain complex graphics

Acrobat Distiller is a PostScript printer driver that works best with documents that contain PostScript fills, Encapsulated PostScript (EPS) graphics, or other complex elements.

It is recommended that Acrobat Distiller be used to create PDF file of architectural and engineering drawings due to their size and complex graphical nature.

2. PRINTER CONFIGURATION

Before converting a CADD drawing to PDF, an Acrobat printer configuration file for the PDF paper size needs to be created. This function can be done in the CADD software rather than using a custom paper size defined for the Acrobat distiller feature. The recommended method is to add a PostScript Adobe plotter in the CADD software and making the necessary setting in terms of media source and size, scale and orientation. The configuration can then be re-used to simplify the conversion process for future files that use the same page size.

As an alternative, although not recommended, a custom-defined size can be created in Acrobat Distiller in the *properties* menu.

3. CREATING PDF FILES

Once the printer configuration has been done in the CADD software, open up Acrobat Distiller and make the necessary settings in the *preferences* and *job options* sub-menu. Ensure that the page size match the sheet size selected in the CADD software to create the file. Particular settings can be saved under different names for future use.

With the Acrobat Distiller application open, ensure the required sheet size is displayed in the *job options* window. Then it is simply a matter of bringing the CADD file into the Acrobat Distiller creation box.

A progress bar will show during the conversion and the newly converted PDF file should open up and be displayed for verification.

4. PDF FILES SETTINGS

4.1 Security

Adobe Acrobat contains security features that can de used to secure the files by restricting any changes to the files. However, since the files will be posted on GETS and will be used for printing copies, the files **must not** be password protected and **must** allow printing.

4.2 Drawing Orientation

The final PDF drawing files must be displayed on the screen in the same direction that the users are intended to view them. This can be achieved by adjusting the setup of the plotter. If the drawing is not oriented properly after the conversion, it can be rotated manually within Adobe Acrobat.

4.3 Font Type

In order to avoid any problems during the conversion and to minimize the potential for font display errors, the fonts used for the production of construction drawings must be *PostScript or True Type fonts.*

4.4 Resolution

Since the PDF files will be used for printing, it is important that a proper resolution be selected. It is recommended to select 600 dots per inch (dpi).

4.5 Scale

When choosing the Plot scale in Adobe, it is important to choose the 1:1 scale to ensure the integrity of the scale from which the drawings were created in the CADD software.

5.SCANNING

Scanning is not recommended and should be done only when the drawing is not available electronically. When scanning a drawing, it is important that it be done in real size (scale 1:1) to ensure that the scale remains intact in subsequent printing. It is recommended that each scanned drawing be opened and verified to ensure that the resolution, scale and border are of an acceptable quality.

6.FINAL CHECKLIST

When the drawing file has gone trough the PDF conversion, it is recommended to open it and verify the following:

- That the sheet size displayed is what was intended to be created (the size is viewable in the lower left corner of the drawing).
- That the orientation of the sheet is correct.
- That the line types, line weights and fonts match the CADD drawing.
- That the PDF file is in black and white.
- That each drawing is a single PDF file.
- That the PDF file is not password protected and printable.

If all the items are verified, the PDF file is useable

7.ADDITIONAL INFORMATION

For more information about the creation of PostScript and EPS files please refer to the User's Guide of the CADD software being used to produce the drawings. For more information about creating PDF file please refer to the Acrobat Distiller User's Guide and/or visit the Adobe Web site at www.adobe.com.

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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: PPB
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

Prime Consultant services for the rehabilitation of the Government Conference Centre

	No / Non	Yes / Oui
5. a) Will the supplier require access to Controlled Goods? Le fournisseur aura-t-il accès à des marchandises contrôlées?	✓	
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?	✓	
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)		✓
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.	✓	
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?	✓	

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	NATO / OTAN	Foreign / Étranger
✓		

7. b) Release restrictions / Restrictions relatives à la diffusion

No release restrictions Aucune restriction relative à la diffusion: ✓	All NATO countries Tous les pays de l'OTAN:	No release restrictions Aucune restriction relative à la diffusion:
Not releasable À ne pas diffuser:		
Restricted to: / Limité à :	Restricted to: / Limité à :	Restricted to: / Limité à :
Specify country(ies): / Préciser le(s) pays :	Specify country(ies): / Préciser le(s) pays :	Specify country(ies): / Préciser le(s) pays :

7. c) Level of information / Niveau d'information

PROTECTED A PROTÉGÉ A	NATO UNCLASSIFIED NATO NON CLASSIFIÉ	PROTECTED A PROTÉGÉ A
PROTECTED B PROTÉGÉ B	NATO RESTRICTED NATO DIFFUSION RESTREINTE	PROTECTED B PROTÉGÉ B
PROTECTED C PROTÉGÉ C	NATO CONFIDENTIAL NATO CONFIDENTIEL	PROTECTED C PROTÉGÉ C
CONFIDENTIAL CONFIDENTIEL	NATO SECRET NATO SECRET	CONFIDENTIAL CONFIDENTIEL
SECRET SECRET ✓	COSMIC TOP SECRET COSMIC TRÈS SECRET	SECRET SECRET
TOP SECRET TRÈS SECRET		TOP SECRET TRÈS SECRET
TOP SECRET (SIGINT) TRÈS SECRET (SIGINT)		TOP SECRET (SIGINT) TRÈS SECRET (SIGINT)

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PART A (continued) / PARTIE A (suite)

8. Will the supplier require access to PROTECTED and/or CLASSIFIED COMSEC information or assets? ☑ No / Non ☐ Yes / Oui
Le fournisseur aura-t-il accès à des renseignements ou à des biens COMSEC désignés PROTÉGÉS et/ou CLASSIFIÉS?
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? ☑ No / Non ☐ Yes / Oui
Le fournisseur aura-t-il accès à des renseignements ou à des biens INFOSEC de nature extrêmement délicate?

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

☑ RELIABILITY STATUS COTE DE FIABILITÉ	☐ CONFIDENTIAL CONFIDENTIEL	☑ SECRET SECRET	☐ TOP SECRET TRÈS SECRET
☐ TOP SECRET– SIGINT TRÈS SECRET – SIGINT	☐ NATO CONFIDENTIAL NATO CONFIDENTIEL	☐ NATO SECRET NATO SECRET	☐ COSMIC TOP SECRET COSMIC TRÈS SECRET
☐ SITE ACCESS ACCÈS AUX EMPLACEMENTS			

Special comments:
Commentaires spéciaux : Only screen personnel to be utilized.

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? ☑ No / Non ☐ Yes / Oui
Du personnel sans autorisation sécuritaire peut-il se voir confier des parties du travail?
If Yes, will unscreened personnel be escorted? ☑ No / Non ☐ Yes / Oui
Dans l'affirmative, le personnel en question sera-t-il escorté?

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? ☐ No / Non ☑ Yes / Oui
Le fournisseur sera-t-il tenu de recevoir et d'entreposer sur place des renseignements ou des biens PROTÉGÉS et/ou CLASSIFIÉS?

11. b) Will the supplier be required to safeguard COMSEC information or assets? ☑ No / Non ☐ Yes / Oui
Le fournisseur sera-t-il tenu de protéger des renseignements ou des biens COMSEC?

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? ☑ No / Non ☐ Yes / Oui
Les installations du fournisseur serviront-elles à la production (fabrication et/ou réparation et/ou modification) de matériel PROTÉGÉ et/ou CLASSIFIÉ?

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? ☐ No / Non ☑ Yes / Oui
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?

11. e) Will there be an electronic link between the supplier's IT systems and the government department or agency? ☑ No / Non ☐ Yes / Oui
Disposera-t-on d'un lien électronique entre le système informatique du fournisseur et celui du ministère ou de l'agence gouvernementale?

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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 A	PROTECTED PROTÉGÉ B	PROTECTED PROTÉGÉ C	CONFIDENTIAL CONFIDENTIEL	SECRET	TOP SECRET TRÈS SECRET
Information / Assets Renseignements / Biens					✓											
Production																
IT Media / Support TI					✓											
IT Link / Lien électronique																

12. a) Is the description of the work contained within this SRCL PROTECTED and/or CLASSIFIED?
La description du travail visé par la présente LVERS est-elle de nature PROTÉGÉE et/ou CLASSIFIÉE?

☑ No / Non ☐ Yes / Oui

If Yes, classify this form by annotating the top and bottom in the area entitled "Security Classification".
Dans l'affirmative, classifier 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, classifier le présent formulaire en indiquant le niveau de sécurité dans la case intitulée « Classification de sécurité » au haut et au bas du formulaire et indiquer qu'il y a des pièces jointes (p. ex. SECRET avec des pièces jointes).

Appendix E

SECURITY CLASSIFICATION GUIDE (EP764-140495 Rev - 1)	
LEVEL	DESCRIPTION
Reliaiblity	Reliability Security Clearance level is required for Designated Organization Screening and all personnel on the Consultant team performing all services in the contract as defined by the Request for Proposal EP764-140495/A.
Level II (Secret)	Facility Security Screening (FSC) and personnel requiring access to classified or protected information is required at Secret Security Clearance level Security Specialist requires the following at Secret Level: FSC, Document Safeguarding, Information Technology Media Safeguarding, personnel requiring access to classified or protected information Prime Consultant requires the following at Secret Level: FSC, Document Safeguarding, personnel requiring access to classified or protected information

APPENDIX F

Information related to Security Requirement

(Appendix E - SRCL Security Classification Guide - Secret)

Proponent (Prime Consultant) - Architect	
Legal Name of Firm:	
Complete Address:	
Telephone Number:	
CISD File Number:	
Organization Security Clearance:	
Sub-consultant - Security Specialist	
Legal Name of Sub-consultant/Specialist:	
Complete Address:	
Telephone Number:	
CISD File Number:	
Organization Security Clearance:	

(Appendix E - SRCL Security Classification Guide - Reliability)

Sub-consultant - Conservation Architect	
Legal Name of Sub-consultant/Specialist:	
Complete Address:	
Telephone Number:	
CISD File Number:	
Organization Security Clearance:	

Sub-consultant - Masonry Conservator	
Legal Name of Sub-consultant/Specialist:	
Complete Address:	
Telephone Number:	
CISD File Number:	
Organization Security Clearance:	

APPENDIX F

Sub-consultant - Structural Engineer (with heritage buildilng conservation speciality)	
Legal Name of Sub-consultant/Specialist:	
Complete Address:	
Telephone Number:	
CISD File Number:	
Organization Security Clearance:	

Sub-consultant - Mechanical Engineer	
Legal Name of Sub-consultant/Specialist:	
Complete Address:	
Telephone Number:	
CISD File Number:	
Organization Security Clearance:	

Sub-consultant - Electrical Engineer	
Legal Name of Sub-consultant/Specialist:	
Complete Address:	
Telephone Number:	
CISD File Number:	
Organization Security Clearance:	

Sub-consultant - Interior Designer	
Legal Name of Sub-consultant/Specialist:	
Complete Address:	
Telephone Number:	
CISD File Number:	
Organization Security Clearance:	

APPENDIX F

The Proponent's Key Personnel identified in SRE 3.2.3 and any other proposed individuals requiring access to classified or protected information, assets or sensitive work site(s) must meet the security requirements as indicated in Supplementary Conditions SC1.

Personnel	
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	

SUBMISSION REQUIREMENTS AND EVALUATION
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

SRE 6 Total Score

SRE 7 Submission Requirements - Checklist

SUBMISSION REQUIREMENTS AND EVALUATION

SRE 1 GENERAL INFORMATION

1.1 Reference to the Selection Procedure

An 'Overview of the Selection Procedure' can be found in R1110T 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 30%	=	Phase One Score (Points)
Phase Two Technical Rating x 60%	=	Technical Score (Points)
Phase Two Price Rating x 10%	=	Price 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;

a. Covering letter

b. Consultant Team Identification (Appendix A)

c. Declaration/Certifications Form (Appendix B)

d. Code of Conduct Certifications

e. Front page of the RFP

f. Front page of revision(s) to the RFP

g. Table of Contents/Index and section dividers not containing technical information

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;

a. Covering letter

b. Consultant Team Verification

c. Front page of the RFP

d. Front page of revision(s) to the RFP

e. Price Proposal Form (Appendix C)

f. Table of Contents/Index and section dividers not containing technical information

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 authorized to provide architectural services and must include an architect licensed 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 in the province of Ontario.

3.1.2 Consultant Team Identification

During Phase One only the prime consultant and key sub-consultants and specialists are identified**.** During Phase Two other sub-consultants or specialists may be identified. Those sub-consultants identified at Phase Two are those considered to play a lesser role in the entire project context.

The Consultant Team to be identified in phase 1 must include the following:

a) **Proponent (Prime Consultant)**
   - Architect

b) **Key Sub-consultants / Specialists**
   - Conservation Architect
   - Masonry Conservator
   - Structural Engineer (with heritage building conservation specialty)
   - Mechanical Engineer
   - Electrical Engineer
   - Security Specialist
   - Interior Designer

c) Information required
   - name of firm and key personnel to be assigned to the project
   - For the prime consultant indicate current licence 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 R1110T General Instructions to Proponents**,** GI 9 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 Code of Conduct Certifications

Proponents, who are incorporated, including those bidding as a joint venture, must provide with their bid or promptly thereafter a complete list of names of all individuals who are currently directors of the Proponent. Proponents bidding as sole proprietorship, including those bidding as a joint venture, must provide the name of the owner(s) with their bid or promptly thereafter. Proponents bidding as societies, firms, partnerships or associations of persons do not need to provide lists of names. If the required names have not been received by the time the evaluation of bids is completed, Canada will inform the Proponent of a time frame within which to provide the information. Failure to comply will render the bid non-responsive. Providing the required names is a mandatory requirement for contract award.

3.1.5 Security Requirement

Before award of contract, the following conditions must be met:

a. The Proponent (Prime Consultant including Sub-consultants/Specialists identified in Appendix F) must hold a valid facility security clearance as indicated in Supplementary Conditions SC1. The Proponent must provide this security information as indicated in Appendix F.

b. The Proponent's Key Personnel identified in SRE 3.2.3 and any other 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. The Proponent must provide this security information Appendix F;

c. The Proponent's proposed location of service performance or document safeguarding must meet the security requirement as indicated in Supplementary Conditions SC1. The Proponent must provide the address(es) of proposed location(s) of service performance or document safeguarding as indicated in Appendix B - Declaration/Certifications Form;

If the required security information is not provided in Appendix F, Canada will inform the Proponent of a time frame within which to provide the information. Failure to comply will render the proposal non-responsive.

3.1.6 Client References

Client References are required in SRE 3.2.1 Achievements of Proponent on Projects and SRE 3.2.2 Achievements of Key Sub-consultants and Specialists on projects.

If any of this information is not provided in the proponent's proposal, Canada will provide a timeframe by which it must be provided. Failure to provide the requested information will render the Proponent non-responsive.

3.2 RATED REQUIREMENTS

The evaluation criteria for the Phase One proposal address 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 with the proposed project and services.

3.2.1 Achievements of Proponent on Projects

Describe the Proponent's accomplishments, achievements, knowledge and experience as Prime Consultant on projects comparable/relevant to the project in this RFP.

The Proponent should present a maximum of three (3) projects where construction has reached substantial completion or been completed within the last 10 years. Only the first 3 projects listed in sequence will receive consideration and any others will receive none as though not included. Joint venture submissions are not to exceed the maximum number of projects and one (1) of the projects submitted should demonstrate past experience working in this same joint venture capacity.

The Proponent should clearly demonstrate experience pertinent to:

a. Heritage conservation including rehabilitation, adaptive re-use, additions, and materials conservation work (masonry, metals, plaster).
b. Abatement and selective demolition
c. Seismic upgrade of a heritage building

d. External stakeholder involvement
e. Replacement of base building systems
f. Working with a Construction Management project delivery approach.
g. Sustainable design

Information that should be supplied:

1. A clear indication of how the project is comparable/relevant to the project in this RFP.
2. Project title, location, building program, building scale (m2), year started and year completed, budget and heritage designation.
3. Project description and intent. Narratives should include a discussion of design philosophy / approach to meet the intent of the project and the design challenges and resolutions of the project.
4. Budget control and management - i.e. construction contract price & final construction cost - explain variation and methods used to control budget.
5. Project schedule control and management - i.e. initial schedule and final project schedule - explain variation and methods used to control schedule
6. Client references – name, company name and phone number of client contact at working level (i.e. having a direct knowledge of project) - references may be checked. Refer to SRE 3.1.6
7. Names of key personnel responsible for project delivery and brief description of their role and responsibility on project
8. Awards received

The Proponent (as defined in R1110T General Instructions to Proponents**,** GI2 Definitions) must possess the knowledge on the above projects. Past project experience from entities other than the Proponent will not be considered in the evaluation unless these entities form part of a joint venture Proponent.

Proponents should indicate those projects which were carried out in joint venture and the responsibilities of each of the involved Joint Venture entities in each project.

3.2.2 Achievements of Key Sub-consultants and Specialists on Projects

Describe the accomplishments, achievements and experience either as Prime Consultant or in a Sub-consultant capacity on projects. If the Proponent proposes to provide multi-disciplinary services which might otherwise be performed by a sub-consultant, this should be reflected here.

Present a maximum of three (3) projects where construction has reached substantial completion or been completed within the last 10 years per key sub consultant or specialist identified in section 3.1.2. Only the first 3 projects listed in sequence (per key sub consultant or specialist) will receive consideration and any others will receive none as though not included.

The Proponent should clearly demonstrate experience pertinent to:

a. Heritage conservation including rehabilitation, adaptive re-use, additions, and materials conservation work (masonry, metals, plaster).
b. Abatement and selective demolition
c. Seismic upgrade of a heritage building
d. Replacement of base building systems
e. Working with a Construction Management project delivery approach.
f. Sustainable design

Information that should be supplied:

1. Project title, location, building program, building scale (m2), year started and year completed budget and heritage designation.
2. Project description and intent. The project narratives should include a discussion of the experience gained that is relevant to this project and also describe the intent of the project; the design philosophy / approach to meet the intent; and design challenges and resolutions
3. Names of key sub-consultants responsible for project delivery and brief description of their role and responsibility on project
4. Budget control and management
5. Project schedule control and management
6. Client references – name, company name and phone number of client contact at working level (i.e. having a direct knowledge of project) - references may be checked. Refer to SRE 3.1.6
7. Awards received

3.2.3 Achievements of Key Personnel on Projects

Describe the experience, expertise and performance of key personnel to be assigned to this project regardless of their past association with the current proponent firm. This is the opportunity to emphasize the strengths of the individuals on the team, to recognize their past responsibilities, commitments and achievements. Key Personnel should include the following as a minimum, if multiple functions are proposed to be performed by one Key personnel, it should be identified here

Principal in Charge
Project Lead architect
Lead Conservation Architect
Masonry Conservator
Lead Structural engineer
Lead Mechanical Engineer
Lead Electrical Engineer
Lead Security Specialist
Lead Interior Designer
All above should have at least 10 years experience in their field of expertise.

<u>Information that should be supplied for each key personnel:</u>

1. Individuals name, title and name of firm
2. Professional accreditation details (province, year, status, etc.)
3. A description of expertise and experience (with number of years) relevant to this project
4. A demonstration of roles, responsibilities and degree of involvement of individual on past projects that will corroborate the person's experience and expertise.
5. 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
Achievements of Proponent	4.0	0 - 10	0 - 40
Achievements of Key Sub-consultants / Specialists	4.0	0 - 10	0 - 40
Achievements of Key Personnel on Projects	2.0	0 - 10	0 - 20
Phase One Rating	10.0		0 - 100

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 generally related to this requirement	Sample projects directly related to this requirement	Leads in sample projects directly related to this requirement
	Extremely poor, insufficient to meet performance requirements	Little capability to meet performance requirements	Acceptable capability, should ensure adequate results	Satisfactory capability, should ensure effective results	Superior capability, should ensure very effective results

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.

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:

4.1.1 Having submitted a responsive Phase One proposal.

4.1.2 Consultant Team Verification submittal of a statement confirming the Consultant Team identified in Phase One is being carried over 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. The price proposal of each Proponent may or may not be opened.

4.2.1 Understanding of the Project:

The Proponent should demonstrate understanding of the goals of the project, the functional/technical requirements, the constraints and the issues that will affect the design, delivery and implementation of the project.

<u>Information that should be supplied:</u>

1. An interpretation of the project's functional and technical requirements including the interrelation of complementary and / or co-dependent project components.
2. A critical assessment of broader goals as they relate to heritage conservation, sustainable development and site sensitivities.
3. Demonstrate an understanding of project significant issues, challenges and constraints.

4. Demonstrate an understanding of Project Implementation strategy and provide a strategy for the execution of the entire RS 1 Schematic Design update phase of the project.
5. Demonstrate an understanding of the project schedule and cost and provide a high level risk management strategy for both schedule and cost.
6. Integration Strategy which would discuss the integration of the PWGSC separately contracted consultants and the Construction Manager.
7. Demonstrate an understanding of the project Stakeholders

4.2.2 Design Philosophy / Approach / Methodology

The proponent should elaborate on aspects of the project considered to be a major challenge which will illustrate design philosophy / approach / methodology. This is the opportunity for the Proponent to state the overall design philosophy of the team as well as their approach of resolving design issues and in particular to focus on the unique aspects of the current project.

Information that should be supplied:

1. Architectural Vision specific to this project
2. A conservation approach that demonstrates understanding of the significance of this Classified federal heritage building's values
3. Design Philosophy / Approach / Methodology
4. Describe the major challenges and how your team approach will be applied to those particular challenges.

4.2.3 Scope of Services:

The Proponent should demonstrate an understanding of the full scope of service for this project. Describe the Proponent's capability to perform the services and meet project challenges. Describe how the Proponent proposes to organize and manage the delivery of all project services and deliverables and provide a plan of action.

Information that should be supplied:

1. A demonstration of the Proponent's understanding of the full scope of services and deliverables required for this project
2. A description of a program for the Resident Site Services during Construction
3. Quality Assurance and Control
4. Project schedule - proposed major milestone schedule including tender and construction using a Construction Management approach
5. Risk management strategy – including risk techniques applied to project budget and schedule
6. Project Cost Control – proposed methodology, including an explanation of how cost control will be applied to maintain the project budget.

4.2.4 Management of Services:

The Proponent should describe their 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; how they propose to perform the services and meet the project constraints; how the services will be managed to ensure continuing and consistent control as well as production and communication efficiency; how the team will be organized and how it will fit in the existing structure of the firms; to describe how the team will be managed. The proponent is also to identify sub-consultant, including Principal resident site representative, disciplines and specialists required to complete the consultant team.
Refer to supplementary Sub-Consultants/Specialist in section PD 6 Consultant Services.

If the Proponent proposes to provide multi-disciplinary services which might otherwise be performed by a sub-consultant, this should be reflected here.

Information that should be supplied:

1. Confirm the makeup of the full project team including the names of the consultant sub-consultants and specialists' personnel and their role on the project.
2. Organization chart with position titles and names (Consultant team), what back-up will be committed and reporting relationships. Joint Venture business plan, team structure and responsibilities, if applicable
3. Profiles of the key positions (specific assignments and responsibilities) including principal resident site representative.
4. Outline of an action plan of the services with implementation strategies and sequence of main activities
5. Work Plan - detailed breakdown of work tasks and deliverables including all required reviews and approvals; clear assignment of responsibilities for activities and deliverables to project team personnel with an estimation of levels of effort. Ensure the execution of the RS 1 Schematic Design deliverables is detailed in the breakdown.
6. Communication strategies – lines of communication and reporting structure within Proponent team and with PWGSC and Construction Manager.
7. Project Response Time: demonstrate how the response time outlined in PA 1.12 requirements will be met

4.2.5 Consultant Presentation

This is a high profile project requiring an important investment of public funds. Project reviews will be rigorous at the federal level and the proponent team will be required to make several presentations to various approval agencies.

The intent of this section is to evaluate the consultants' ability to make effective presentations. The people making the presentation during this evaluation shall be the same people who will present during the development of the project.

The proponent team will be required to make a thirty (30) minute presentation, followed by a brief interview with the PWGSC evaluation board. Proponents must be available to make the presentation within two (2) to three (3) weeks following the closing date of Phase 2 submission proposals. A maximum of four (4) representatives per proponent team will be allowed. The proponent team can make use of audio / visual material as they wish.

The presentation should summarize all the points of the proposal in relation to the project and services to be rendered. No new information which has not been included in the Phase 1 and 2 proposals will be evaluated.

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, price

envelopes will remain sealed and only 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
Understanding of the Project - technical, schedule & cost	2.0	0 - 10	0 - 20
Scope of Services	2.0	0 - 10	0 - 20
Management of Services	3.0	0 - 10	0 - 30
Design Philosophy/Approach/Methodology	1.5	0 - 10	0 - 15
Consultant Presentation	1.5	0 - 10	0 - 15
Phase Two Technical Rating	10.0		0 - 100

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	30	0 - 30
Phase Two Technical Rating	0 - 100	60	0 - 60
Combined Technical Score		90	0 - 90

To be considered further, proponents **must** achieve a minimum Combined Technical Score of fifty-four (54) points out of the ninety (90) points available as specified above.

No further consideration will be given to proponents not achieving the pass mark of fifty-four (54) points.

SRE 5 PRICE OF SERVICES

All price proposal envelopes corresponding to responsive proposals which have achieved the pass mark of fifty-four (54) points will be opened upon completion of the technical evaluation. An average price is determined by adding all the price proposals together and dividing the total by the number of price proposals being opened.

All price proposals which are greater than twenty-five percent (25%) above the average price will be set aside and receive no further consideration.

The remaining price proposals are rated as follows:

1. The lowest price proposal receives a Price Rating of 100
2. The second, third, fourth and fifth lowest prices receive Price Ratings of 80, 60, 40, and 20 respectively. All other price proposals receive a Price Rating of 0.
3. On the rare occasions where two (or more) price proposals are identical, the matching price proposals receive the same rating and the corresponding number of following ratings are skipped.

The Price Rating is multiplied by the applicable percentage to establish the Price Score.

SRE 6 TOTAL SCORE

Total Scores will be established in accordance with the following:

Rating	Possible Range	% of Total Score	Score (Points)
Phase One Rating	0 - 100	30	0 - 30
Phase Two Technical Rating	0 - 100	60	0 - 60
Price Rating	0 - 100	10	0 - 10
Total Score		100	0 - 100

The Proponent receiving the highest Total Score is the first entity that the Evaluation Board will recommend for the provision of the required services. In the case of a tie, the proponent submitting the lower price for the services will be selected.

SRE 7 SUBMISSION REQUIREMENTS - CHECKLIST

The following list of documents and forms is provided with the intention of assisting the Proponent in ensuring a complete submission. The Proponent is responsible for meeting all submission requirements.

Please follow detailed instructions in R1110T General Instructions to Proponents, GI16 Submission of Proposal. Proponents may choose to introduce their submissions with a cover letter.

PHASE ONE:

- ☐ Team Identification - see typical format in Appendix A
- ☐ Declaration/Certifications Form - completed and signed - form provided in Appendix B
- ☐ Proposal - one (1) original plus five (5) copies
- ☐ Code of Conduct Certifications - list of directors / owners
- ☐ Security Information - see Appendix F

PHASE TWO:

- ☐ Verification of Team - confirmed Phase One team identification information
- ☐ Proposal - one (1) original plus five (5) copies
- ☐ Front page of RFP
- ☐ Front page(s) of any Revision(s) to RFP

In a separate envelope:

- ☐ Price Proposal form - one (1) completed and submitted in a separate envelope

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TERMINOLOGY

The following terms are used in this document:

Consultant	The architectural, interior design and engineering teams, including specialist consultants in contract with PWGSC for services for the project, as outlined in this Request for Proposal.
BCC	Building Components and Connectivity, including information technology (IT), multi-media (MM), Integrated Security Systems (ISS), furniture, built-in furniture and equipment.
Cost Consultant (CC)	The cost planning firm in contract with PWGSC engaged to provide independent cost (Planning, Estimating and Control) advisory and quality assurance services.
Client/ Users	The Senate of Canada (Senate) is the primary facility occupant. The Library of Parliament (LoP) will also be present in the building in a support role to the Senate, particularly with respect to the Guided Tours Program.
Construction Manager	The construction management firm engaged by PWGSC to provide construction-related advice during the planning, design and construction documentation phases and to provide construction management services during the execution of multiple contracts (tenders).
LTVP	Long term Vision and Plan for the Parliamentary Precinct: A comprehensive twenty-five year plan to preserve the existing historic assets and to provide new facilities and infrastructure to meet the needs of Parliament and the public.
ITPMO	Information Technology & Project Management Office
NMS	National Master Specification
PMSS	The Project Management entity in contract with PWGSC for project management support services for this project.
PM Team	The combined PWGSC Project Management and PMSS Team, including the CC and SC responsible for project and program management.

Project Team	The combined private sector and government sector team responsible for delivering the project including the PM Team, Consultant, the Construction Manager, representatives from PWGSC, the Senate and other government organizations.
Schedule Consultant (SC)	The scheduling firm in contract with PWGSC engaged to provide scheduling (Planning, Monitoring and Control) advisory and quality assurance services.
Environmental/ Consultant	The firm separately contracted by PWGSC Geotechnical engaged to provide environmental and geotechnical services.
DR	The Departmental Representative.

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, in the design and implementation of the Government Conference Centre Rehabilitation project. The Prime Consultant will review all of the related documentation, recommend further examination as required, prepare the design, construction tender documents, construction and contract administration including resident site services, cost, scheduling and project control, and commissioning services required for this project. Construction shall be implemented by a Construction Manager.

The delivery of the Consultant services is anticipated to be a continuous process leading to the preparations of design development documents. During the preparation of the design development documents, the project shall receive authority from Treasury Board to proceed to construction tender documents and tender call.

The Project Brief is intended to identify the project requirements and provide overall project information that proponents need to submit a proposal. Information concerning PWGSC standards and policies for consultant services is provided in "Doing Business with National Capital Area (NCA)", and must be adhered to in conjunction with requirements of this Project Brief.

The Government Conference Centre (GCC) is a classified heritage building that requires major rehabilitation. Currently it functions as a conference facility. The GCC is a 101-year old heritage building that has not undergone major work since the 1970s. The need to preserve this heritage building coincides with the need to find an interim home for the Senate. This approach enables the rehabilitation of a deteriorated heritage building while providing a home for Senate functions while the Centre Block is rehabilitated.

PD 1.1 Project Identification

PWGSC Project Title:	Government Conference Centre Rehabilitation
Location of the Project:	2 Rideau Street, Ottawa, Ontario
PWGSC Project Number:	R.060749.037
Client / User:	Senate of Canada

PWGSC Project Team:

Senior Project Manager:	Andrea Vecsei
Project Manager:	Misty Campbell
Contract Officer:	Lynn Leach

PD 2 PROJECT IDENTIFICATION/DESCRIPTION

2.1 Client/User

The Government Conference Centre (GCC) is a classified heritage building that requires major rehabilitation. Currently it functions as a conference facility; the newly rehabilitated building will serve as interim Senate accommodation, and in the long-term revert to a conference facility. The project scope is to rehabilitate the GCC as interim accommodation for key Senate functions including the Chamber, 3 Committee Rooms, Leadership and Legislative functions (equivalent to 21 Parliamentary Office Units - POUs), and support functions

The following are the 3 Senate guiding principles for this project:

1. Due to the Senate's temporary use of the GCC, funding of Senate requirements will be restricted to requirements deemed as basic necessities to support the ongoing operation of the Senate.
2. Senate requirements will focus on the longer term use of the Government Conference Centre rather than its interim use, thereby minimizing later fit-up costs and;
3. Where warranted the identification and development of design options for specific Senate requirements will strive to comply with the intent of the Government of Canada's Fit-Up Standards, including a goal to ensure that "standard materials (related to the Senate accommodations) are of a midrange quality and are selected to attain sustainable design goals and provide the best value for money based on a ten-year life-cycle costing analysis."

2.2 Cost

The GCC Rehabilitation project shall respect the approved construction budget**.** It is the Consultant's responsibility to manage the project's scope within the construction budget. The current indicative estimate escalated to the completion of the project (not including HST, risk allowance or professional fees) is as follows:

Class D estimate

- Hard construction budget $ 91,378,000

Hard Construction and BCC Estimates	Current 000$
CONSTRUCTION COSTS	
Base Building Rehabilitation	
Abatement & Demolition	3,850
Shell	15,160
Interiors	7,305
Mechanical/Electrical Infrastructure	22,400
Site	2,557
General Requirements	3,718
Premium Interior Fit-up – Major Functions	
Interior Fit-up	12,222
Design Contingencies	14,444
Subtotal hard construction estimates	**81,656**
Construction Contingency	7,222
Bonding, insurance & permit	2,500
Total hard construction estimates	**91,378**

BCC	
BCC Connectivity (IT/MM/ISS)*	15,000*
BCC Components (Furniture, Signage, Equipment)	6,000
BCC Contingency	4,000
Total BCC estimates	**25,000**

***INCLUDED IN CONTRACT FOR PARTIAL SERVICES (Coordination, Integration, Scheduling)**

2.3 Schedule

Key project activities with corresponding time frames are indicated below:

ACTIVITY	DURATION
RS 1 – Schematic Design Stage (SD)	8 weeks
Allowance for SD Stage Reviews	*4 weeks*
RS 2 - Design Development (DD)	44 weeks
Allowance for DD Stage Reviews	*12 weeks*
RS 3 - Preparation of Construction Documents (CD) Packages	80 weeks
Includes Allowance for CD Stage Reviews-Overlaps with RS 1 & RS 2	
RS 4 - Phased Tendering by CM (multiple tender sets)	93 weeks
RS 5-RS6 - Phased Construction (multiple work packages)	42 months
Overlaps with RS 1, RS 2 & RS 3	
Warrantee Review: 12 months following Certificate of Substantial Performance.	

The above time allocations shall take into effect immediately after the award of a contract to the Consultant. In developing a detailed schedule, the Consultant must ensure that activities are planned concurrently where no interdependencies exist.

Activity durations are preliminary, and the Consultant is responsible for verifying and confirming the feasibility of the above schedule dates as part of its scheduling mandate (see section RS 8 - Project Time Planning, Scheduling and Control for details). The project schedule is being driven by the need to vacate the Centre Block as soon as possible.

The schedule below highlights key dates associated with the GCC Rehabilitation project and reflects an early tender and award of the abatement and demolition.

Stage	**Completion Date**
Estimated Consultant Team Appointment	Jan 2014
Estimated Construction Manager Appointment	Jan 2014
Schematic Design Update	April 2014
Design development and Class B Estimate Complete	April 2015
Building vacated	June 2014
Construction mobilization (Abatement and Demolition)	June 2014
Substantial Performance	Dec 2017
BCC completed	June 2018
Client's Commissioning and Office Contents Move	Aug 2018
GCC Operational	Sep 2018

While the design development is taking place certain aspects of the base building design shall be accelerated so that construction documents can be produced for those areas that do not require the design to be fully completed such as but not limited to the building envelope, excavation and backfill.

The Consultant shall work closely with PWGSC, the Client/Users and the CM to reduce the durations set out in this schedule.

The building will be vacated in June 2014.and must be fully operational and occupied by building September. Warranty services will be over and above those dates.

2.4 Project Overview

The project scope of work includes: abatement and selective demolition, limited excavation, seismic, structural and envelope upgrades, base building systems (M&E) replacement, IT infrastructure and equipment, security infrastructure and devices, new vertical circulation throughout, a new loading dock, interior fit-up, and landscape work.

The draft schematic design and report will be available in Phase 2 to the Proponents, see section PD 7.2. The final schematic design will be provided to the successful proponent.

2.5 Implementation Strategy

2.5.1 Schematic Design by Others

In order to accelerate the project schedule, a separate consultant team was engaged by PWGSC to develop; Conservation Guidelines, a Functional Program and a Schematic Design with options analysis. The intent is to provide the successful proponent the above noted documentation. Unless clearly substantiated, at no cost to the Crown and without impact to the schedule, it is clearly expected that this schematic design becomes the basis for the Consultants work.

2.5.2 Construction Manager

In order to meet the Centre Block scheduling requirements, a Construction Management approach shall be implemented for the GCC Rehabilitation project.

2.5.3 Abatement and Demolition (AD)

Construction must start as soon as the building is vacated in June 2014. Immediately after the Consultant contract award, the Consultant, the Environmental Consultant (EC) and the Construction Manager (CM) will work closely to establish the Abatement and Demolition (AD) program as well as the temporary services requirements. It is expected that the scope of the first abatement and demolition package will cover work that is not dependent on the final design. This will allow for construction work to start June 2014. The remaining AD tender packages can then be released during design development of base building and fit-up so that the AD work continues with no delays.

2.5.4 Environmental Consultant (EC) and Geotechnical Consultant (GSC) Services

An Environmental Consultant shall be retained by PWGSC and will report directly to the Departmental Representative (DR). The EC will be responsible for all abatement work and will be providing related consultant services. Specifically the EC will develop the abatement tender packages related to demolition. The Consultant shall be responsible for all demolition and shall coordinate with the EC to ensure a seamless delivery of the AD scope of work. The EC will provide all field review services during tender and construction.

Geotechnical services will be performed by a separate entity, retained by PWGSC and reporting directly to the DR. The Consultant shall coordinate with PWGSC's Geotechnical Services Consultant (GSC), to review the GSC reports, to identify areas where additional geotechnical information may be necessary for design purposes, and to work in collaboration with the GSC during construction phase inspections and site monitoring activities.

2.5.5 Base building and Fit-up

A phased design process is required. The construction documents for the base building and fit up will be produced iteratively. While the design development is taking place certain aspects of the base building design shall be accelerated so that construction documents can be produced for those areas that do not require the design to be fully completed such as the building envelope, excavation and backfill. Consequently the

construction documents for the foregoing work can be developed tender ready to allow construction to continue.

While the construction documents are being developed iteratively, the Consultant shall sequentially release to the CM a minimum of twenty (20) construction documents issuances, for CM tender, to optimize construction schedule. This number is excluding the ones described under PD 6.6 BCC Procurement Approach. A proposed sequence for the release of construction documents tender ready is shown below but will be reviewed and updated by the CM in consultation with the Consultant.

As a minimum, expect to issue construction documents tender ready for the following work:

- Excavation and backfill
- Exterior site work and Landscaping
- Site services
- Masonry
- Mechanical and controls
- Pre-purchase of key mechanical and electrical equipment
- Structural including seismic upgrading
- Electrical
- Building envelope and roofing
- Frames, doors and hardware
- Interior finishes
- Various aspects of BCC components program
- Millwork, fittings and equipment
- Heritage trades (various issuances of construction documents)

During the design phase, the Consultant shall work closely in a cooperative manner with the Construction Manager to develop the design and ensure that all information is made available to the CM to be able to provide accurate and complete advice on CM activities such as, but not limited to the following:

- Construction costs
- Material delivery and construction schedules
- Constructability
- Suitability and availability of materials and components
- Sustainable design, construction, and operational principles and practices.

2.6 Building Constraints and Challenges

Site

- Limited area at the south end of the site to provide Senate drop-off, and parking. Consultations with NCC and City will be required to enlarge drop-off and improve vehicular access/exiting from Colonel Drive.

Building Envelope and Structure

- Excavation near heritage foundation walls
- Seismic upgrade of heritage building
- Removal of columns in the Ticketing Block

Interior Architectural Interventions

- Identify opportunities to preserve and restore primary character defining elements

Integrated Design

- Long term use of building as conference facility
- Flexibility is required for identified systems to permit future change in use and occupancy
- Integration of M&E in a heritage fabric and structure

Security

- Maintaining public access to canal and Rideau centre and ensuring secure perimeter of building.
- Security design will require additional level of effort to integrate security elements and reviews into a completed design.

Implementation

- The restricted access to the building and limited lay down area must be taken into consideration during the development of construction documentation. Construction of the Confederation line and its subsequent Rideau Street rail stations may also impact access to the building site and will require integration of these constraints into tender documents,
- Abatement and Demo construction work to be tendered in advance of the completion of the Design Development deliverable.

Cost and Schedule

- Limited budget
- Substantial completion December 2017
- Extensive consultation, review and approval process by stakeholders

PD 3 PROJECT BACKGROUND

3.1 Project and Building History

The GCC was built in 1909-1912 and is located on the south side of Wellington/Rideau Street facing Confederation Square, across from the Chateau Laurier Hotel. Colonel By Drive defines the eastern boundary and the Rideau Canal World Heritage Site defines the western boundary of the site. The building designed as Ottawa's central Union Station, Ross and McFarlane designed the building in the Beaux-Arts idiom of major train stations across Canada. The building functioned as a train station until 1966 when Ottawa's rail services were relocated to the new station on Tremblay Road. In the same year, the train sheds to the south and west were demolished and a large commercial building to the East known as the Corey Block was demolished. In 1968 the Federal Government converted the building to a Government Conference Centre, which originally entailed interior, and then by 1973, exterior alterations. Three principal

exterior additions have been added to the building. In 1955 a penthouse was added over the Main Entrance Block. In 1973, a one-storey South Wing was added at the location of the former train shed. In 1984, the East wall exposed by the demolition of the Corey Block was re-clad and a glass and metal fire staircase was added.

The GCC has been designated "Classified", the highest possible heritage designation, by the Federal Heritage Building Review Office (FHBRO) in 1989 for its historical associations and its architectural design and prominence. The building was also designated by the City of Ottawa in 1979. It is adjacent to the Rideau Canal, a UNESCO World Heritage Site and a National Historic Site of Canada, and forms part of the Confederation Square, also a National Historic Site of Canada.

The Long Term Vision and Plan (LTVP) for the Parliamentary Precinct is an initiative of PWGSC with participation from all stakeholders to generate a comprehensive twenty-five year plan to preserve the existing historic assets and to provide new facilities and infrastructure to meet the needs of Parliament and the public. At the heart of the plan is the timely restoration and renovation of the key heritage assets, first among these is the Centre Block. The renovation will require, in part, the interim relocation of the Senate Chamber, Committee Rooms and the Senate associated Leadership and Legislative functions. The most recent strategic plans have determined that the GCC building will provide this interim space. The swing space will be needed for an estimated period of 10 years. In the longer term, after the interim use by the Senate, the building will revert back to its use as a government conference facility.

3.2 Existing Building Information

The following provides a summary profile of the GCC Building and history.

Location:	2 Rideau Street
Number of Stories:	6 above grade
Inside Gross Area:	12,531 m2
Proposed Building Use:	Assembly, administration and support services, occupation by the Senate of Canada, staff and the public.
Current Occupancy:	PWGSC administrative, support services and assembly occupancies.
Built:	1909-1912 by Grand Trunk Railway
Architects:	1909-1912: Ross and McFarlane
	1955 Penthouse Addition: 1973 Ground Floor South Addition: Alistair M. Ross Architect 1984 East Stairwell: Otto and Bryden, Architects
Acquired by Crown:	1967
Heritage Designation:	Designated as "Classified" by FHBRO, 1989
Pedestrian Access:	From Rideau Street or Colonel By Drive

Loading:	Access via Colonel By Drive
Parking:	East Parking lot: approximately 10 cars South Entrance circle: 3 reserved parking spots and additional loading parking only.
Vertical Transportation:	2 passenger elevators, 1 dumbwaiter
Construction:	Concrete slab supported by concrete steel beams bearing on interior steel columns and perimeter load bearing brick masonry walls or exterior steel columns
Façade:	Original 1909-1912 Construction: Limestone on granite base 1955 Penthouse Addition: Limestone cladding / Brick 1973 South Addition: Precast Concrete Cladding 1984 East Stair Addition/East Wall repair: Stucco / Precast concrete.

PD 4 PROJECT OBJECTIVES

Several project objectives have been developed by PWGSC and the Senate in order to ensure overall suitability and success of the project. In order to ensure all the objectives below are met the following shall be undertaken:

4.1 Objective One: Cost Management

A key objective is to deliver the GCC Rehabilitation project within the project funding as authorized by Treasury Board. This will be achieved through the following:

a. A rigorous cost management system in place to both monitor and report on cost,
b. Formal costing submissions for each tender package and for the overall project, in accordance with all Required Services sections and at all stages of Contract Document production,
c. Redesign work to be undertaken to maintain the construction cost budget when required,
d. Determination of appropriate contingencies,
e. Iterative and continuous design analysis and adaptation to maintain cost objective in collaboration with the PWGSC's Cost Consultant,
f. Strong and disciplined change control system,
g. Strong communications,
h. Authorities in place for approvals, and
i. Management of risk fund.

Since the construction budget is of a fixed value, value engineering as well as design choices shall be a continuous process throughout the project.

4.2 Objective Two: Aggressive Schedule

The GCC Rehabilitation project plays a key role in the Centre Block Rehabilitation Program by providing swing space for existing Senate Chamber and other Senate-related accommodation requiring temporary relocation. As such, it is critical that an aggressive schedule is developed for this project that will allow relocation of the Senate-related functions as soon as possible while still conforming to the policies of PWGSC. The Centre Block project will be directly impacted by any delays in the GCC project. The current schedule identifies the occupancy date for the GCC project as September 2018. The Project Team must work proactively to meet this timeframe. Any methods to reduce the schedule must be tabled and, if approved, implemented.

4.3 Objective Three: Design and Heritage Quality

Provide a building that will serve the long term use of the building and Senate for the duration of 10 years. The Department expects the Consultant to maintain a high standard of architectural design, based upon recognized contemporary design principles. All design elements, planning, architectural, engineering and landscaping, must be fully coordinated, and consistent in adherence to good design principles. The level of quality is to meet the following objectives:

a. Quality of materials, construction methods and execution shall be commensurate with a classified heritage building and the budget. Avoid experimental materials,
b. A building which enhances the Beaux-Arts architectural style within the context of good conservation practices. The building design should be compatible with and enhance character defining layers considered of importance as described in the Conservation Guidelines, helping resolve and marry previous alterations that are being retained
c. Creates spaces which are befitting the dignity of the seat of Canada's Parliament. A building that reflects the importance of the Parliamentary functions it serves, conveys Canadian democracy, parliamentary activities and operations.
d. The project is to be implemented in an environmentally responsible manner
e. 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.
f. The character, massing, scale, materials of this project shall be compatible with its surrounding context.
g. Design for maximum flexibility in immediate and future use of space. Where possible, devise a building grid with column spacing and service runs suited to flexible interior space arrangements.
h. Fabric and systems that will remain for the long-term must be of a high quality; designed in response to sound building science, life cycle cost effectiveness, general ease of maintenance and easily repaired and/or replaced

and constructed with the best workmanship possible.

4.4 Objective Four: Integrated Project Delivery

Deliver the project utilizing best practices in support of Client / Users needs, respecting the approved scope, quality, energy budget, financial budget and schedule.
The Objectives for an integrated project delivery include:

a. A partnership and open communications between all members of the Project Team and stakeholders throughout all phases of the project life,
b. Rigorous quality assurance reviews during the design and construction phases and commissioning of facilities,
c. A rigorous quality management plan in order to respond and correct, in a timely and effective manner, all issues as they occur,
d. A Consultant, experienced in major capital renovation projects, who shall be responsible for the production and delivery of all documents, and shall ensure that there is a continuity of key personnel working as an integrated dedicated Consultant for the full duration of the project,
e. A CM project delivery approach of multiple tendering and construction activities in major capital project featuring significant heritage rehabilitation work.
f. Professional conduct in all phases of the project, employing best practices for budget, schedule, quality, and scope management,
g. A continuous risk identification and management program employing effective methodologies to ensure construction safety as well as claims avoidance, and
h. Continuous and comprehensive documentation of the project at all stages of the project implementation.

4.5 Objective Five: Health and Safety of Construction Site

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

The Consultant shall be responsible to provide all training and protective equipment for its entire team and comply with safety standards and policies established by the Construction Manager.

PD 5 PROGRAM OF WORKS

5.1 Functional Program

The program includes: an interim Chamber; 3 committee rooms (1 with broadcast) and support; Leadership office functions including Speakers suite, Leader of Government, Whip, etc. (21 Parliamentary Office Units (POU's) equivalent); Legislative office functions including, Black Rod and Clerk (8 POU's); support functions; loading dock; and appropriate level of hard security in the context of an interim location. A Functional Program will be completed for the project upon the award of this contract. The total program is approximately 8,000sq.m.

For further details on the Functional Program and Schematic Design this existing documentation will be available for proponents in Phase 2 – refer to PD 7.

5.1.1 Functional Program Consideration

The Senate has defined space and furniture Accommodation Standards with respect to POU's. These Accommodation Standards have defined space allocation standards for Senators and support and administration staff. Additionally, these Accommodation Standards define the type, quality, quantity of office furnishings that are to be provided to the Parliamentarians and to supporting administrative personnel.
The Senate also has defined space, furniture, and technical allocation Accommodation Standards with respect to Committee Rooms and their requirements. This Accommodation Standards guides the required heights between floor and ceiling, including the bulkhead requirements. It also guides the placement of all required technology.

5.2 Accessibility

Public Works and Government Services Canada is committed to making its facilities accessible to persons with disabilities. The *Treasury Board Accessibility Standard for Real Property* establishes minimum requirements for the accessibility of Crown-owned and leased real property.(http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=12044&section=text#cha3)

5.3 Heritage

5.3.1 Approvals

The GCC was evaluated with significant values in all three major theme areas of historic associations, architecture and environment. The implications of this designation are defined in the *Treasury Board Policy on the Management of Real Property* (http://www.tbs-sct.gc.ca/rpm-gbi/doc/gmrp-ggbi/gmrp-ggbi06-eng.asp#a6.6.5), and as such formal reviews of intervention will need to be presented to Federal Heritage Buildings Committee (FHBC). The Consultant shall have a conservation approach in accordance with the *Standards and Guidelines for Conservation of Historic Places in Canada,* which will help guide the design process. FHBC bases its reviews of proposed

interventions on the conservation approach set out in this document.

The National Capital Act makes the National Capital Commission (NCC) responsible for coordinating and approving projects related to federal lands and buildings in Canada's Capital Region. The NCC role includes reviewing all proposals for work or alterations to federal heritage buildings and sites through the federal land use, transaction and design approvals process (FLUDA). This project will be a Level 3 (a major project having a high symbolic value for the Capital). Level 3 projects require a detailed internal review by a team of NCC professional staff and are presented to the Advisory Committee on Planning, Design and Realty (ACPDR) prior to being submitted to the NCC Board of Directors for approval. Abatement & demolition and fit-up construction will not proceed until the FLUDA is obtained.

The GCC Rehabilitation project will include a large number of stakeholders including the above mentioned FHBRO and NCC, the Senate, the Library of Parliament (Guided Tours), Parks Canada, City of Ottawa, the LTVP Steering Committee, the RCMP (for grounds security), and the public.

5.3.2 Heritage Character Statement

The Heritage Character Statement is available on the Directory of Federal Heritage Designations website: http://www.pc.gc.ca/apps/dfhd/page_fhbro_eng.aspx?id=3821. A high level summary of the architectural character defining elements that contribute to its designation are as follows:

Historical value:

Originally built as Ottawa's Union Station, the present-day Government Conference Center is one of the best examples associated with the great railway-building era in pre-war Canada, an activity central to the development of Canada's early national unity and prosperity. The building continues to shape the country's political and cultural identity in its role as the Government Conference Center, a location for major national and international conferences. Originally as a port of entry to the Capital and later as a meeting venue, the building has long been associated with many figures of national and international significance. The building strongly depicts several phases of Ottawa's development such as its function as a capital city as well as in the development of the city core.

Architectural value:

The Government Conference Center is an excellent example of the Beaux-Arts tradition, a design favored for this building type. The ordering of both the exterior and the interior are related expressions of Beaux-Arts design principles. Exhibiting the full vocabulary of classical forms, the symmetrical composition, large colonnades and arches of the building's formal entrance and linear facades express the progression of spaces on the interior. As well, the axial symmetry and the progression of the interior spaces, of varying heights and proportions, permit a large, open layout in main spaces. Excellent decorative treatments and materials complement the overall design of the building.

Environmental value:
The Government Conference Center reinforces the present character of Confederation Square in the commercial area of Ottawa's downtown. The building is a familiar landmark to the residents of the city and the region.

The *Treasury Board Guide to Management of Real Property* places protection of the heritage character of federal buildings on an equal footing with other considerations related to real property management and it is within this policy that departmental obligations and responsibilities are defined. The policy should be consulted to ensure that the relationship between preservation of heritage and sustainability is managed correctly.

5.3.3 Government Conference Centre Heritage Conservation Plan and Government Conference Centre Conservation Guidelines

A Heritage Conservation Plan (Barry Padolsky Associates Inc., Architects/IBI Group Architects) and more recently Heritage Conservation Guidelines (DFS/ARCOP) have been developed for the GCC Building. The Conservation Guidelines are to assist PWGSC in stewardship of this Classified building complex (site, building exterior and building interior). The Guidelines provide an understanding of the character-defining elements of the complex and are to be a guide for the development of future interventions. The guidelines seek to guide and mitigate the impact of potential changes to the building's character-defining architectural elements.

As part of the stewardship role of PWGSC, architectural components being considered for salvage or disposal must be carefully considered to ensure that the heritage value is respected. The Government of Canada has established a legal and policy framework for the protection of heritage buildings, sites and moveable heritage assets in its care. In addition to the TB Policy on Management of Real Property the following documents affect how salvaged items are to be assessed and managed:
*Treasury Board Policy on the Management of Materiel (*http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?section=text&id=12062)
*Guide to the Management of Movable Heritage Assets (*http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=13872&section=text)

5.4 Environmental / Sustainable Development

The Project provides the opportunity to incorporate innovative, sustainable and environmentally responsive design into the rehabilitation. PWGSC policy requires that rehabilitation projects of Crown-owned buildings meet, at a minimum, Leadership in Energy and Environmental Design (LEED) Silver or equivalent standard. The equivalent shall be Green Globes Design for New Buildings and Retrofits and the target shall be a minimum 70% rating.

Sustainable Development objectives must be addressed throughout the evolution of the project. Sustainable Development is defined in broad terms as a strategy that routinely

and consistently includes the consideration of the environmental, economic and societal impact of every decision made for the project. The general areas of focus include but are not limited to:

- Energy efficiency and conservation,
- Greenhouse gas emissions reduction,
- Water management and conservation,
- Pollution prevention,
- Product selection and resource conservation,
- Indoor environmental quality (thermal, air, and lighting quality and control),
- Site conservation (protection and preservation of valued natural site features), and
- Environmentally friendly maintenance procedures and products (e.g. low volatile organic compounds).

The following are some of the principles that shall be incorporated into the design:

- Integrated Strategic Assessment,
- Integrated Design Process,
- Energy Efficiency,
- Environmental Impact,
- Waste Management,
- Support of alternate transportation (bicycle storage, etc.)
- Life Cycle Management,
- Sustainability Performance Assessment, and

As well as the *Treasury Board Policy on Management of Real Property* other guidance documentation outlining sustainable design principles to be included for federal real property projects include:

- *Environmentally Responsible Construction and Demolition Handbook* (http://www.tpsgc-pwgsc.gc.ca/biens-property/gd-env-cnstrctn/index-eng.html),
- *Green Office at a Glance Handbook (*http://www.tpsgc-pwgsc.gc.ca/biens-property/env/page-1-eng.html*)*,

The Consultant shall apply for and obtain, on behalf of PWGSC, certification for the project under Green Globes Design for New Buildings and Retrofits, at a minimum rating of 70%. Services related to preparation of the documentation required for certification and completion of the certification process prior to the expiration of the warranty period is the responsibility of the Consultant.

This project requires a solid waste management program which must be implemented for all construction phases. This is the responsibility of the Consultant. The PWGSC Environmental Consultant will prepare the Consolidated Waste Inventory (which is an element of the solid waste management program) in full consultation and coordination with the Consultant based on the demolition and construction scope.

The team approach is crucial to sustainable building. It encompasses a design methodology that is focused on a collaborative process involving input from all team members early in the project. To this end the Consultant shall lead the integrated design process to provide a holistic approach to the rehabilitation design. The intent should be to focus on the design, construction, operation and occupancy of the building over the complete life cycle in a multidisciplinary approach that clearly defines the functional, environmental and economic goals and objectives of the project. In doing so the following should be accomplished:

- Establishment of a inter-disciplinary team including PWGSC and the Client/User,
- Establishment of the priorities of the various performance issues,
- Energy simulation on design options and objective information on system performance,
- Provision of subject specialists to provide consultation,
- Use of performance assessment tools such as Green Globes Design for New Buildings and Retrofits,
- Use of a design facilitator to initiate and stimulate discussions, and
- Use of team workshops.

5.5 Security

The security services will supplement the buildings functionality, without impeding day-to-day operations. The judicious use of security processes and procedures will facilitate and promote a secure environment. Crime prevention through environmental design principles shall supplement the overall security design. Security provisions to address specific vulnerabilities identified in the Threat Risk Assessment (TRA) will be necessary. The resulting security design brief and concept design shall be guided and supported by the TRA recommendations including adequate flexibility to enhance protection based on the various Readiness Levels. Security component pathways, physical security elements and other related security features for the base building, fit-up and landscape must be coordinated and fully integrated.

5.6 Long-term Planning

The GCC is presently occupied by PWGSC Events and Conference Management (ECM). Following the Senate interim use of the building the building will likely revert to a conference facility. Compatibility between the interim use of the building for the Senate and its potential future use as a Government Conference Facility must be sought during the design. Interior layouts and mechanical and electrical distribution systems must be designed with flexibility. It is not anticipated that there will be any required changes to the exterior of the building for the reversion to a conference facility.

5.7 Abatement and Demolition (AD)

A pre-construction exploratory openings investigation will be completed in early 2014. The information from these investigations will inform the early tender packages such as the abatement, selective demolition and seismic reinforcement. Soil remediation in specific locations will also be required.

5.7.1 Abatement:

Hazardous substances in the GCC have been detailed in *the Designated Substance Report*. The Environmental Consultant (EC) will be required to plan, design and develop tender packages in connection with the abatement. This will include the development of a program to remove hazardous substances during demolition as well as the field review related to abatement.

5.7.2 Demolition

As discussed in the PD 2.4 Implementation Strategy the Prime Consultant shall be responsible for the demolition scope and to fully coordinate directly with the EC for the purpose of developing their design and construction documents and to ensure the delivery of coordinated AD tender packages. To accelerate the schedule the AD will be tendered and implemented in sequential stages. The Prime Consultant will take the lead to ensure the issuances are ready for the Construction Manager. A high level of cooperation, coordination and integration is therefore expected between the EC and the Consultant.

Demolition will follow a construction, renovation, demolition (CRD) waste management plan. The Consultant will ensure that all activities are monitored and coordinated under the supervision of their Structural Engineer to ensure that the building integrity is not compromised and that the building remains safe. As well, during this stage, temporary services will need to be planned and installed.

The Consultant shall be responsible for building and heritage protection. Careful protection and on-going monitoring of the building elements that will remain and guidelines shall be required regarding the protection of character-defining elements for any AD that happens. The FHBRO will need to be consulted on any demolition or removal of character-defining elements. Demolition involving character-defining elements (materials, assemblies, spaces) requires planning, documentation and storage. Salvaging guidelines shall be required.

5.8 Temporary Work

The Consultant in consultation with the CM shall be required to identify and design temporary architectural, structural, mechanical, and communication, electrical and fire protection requirements related to the abatement and demolition tender packages and for the transitional periods between tender packages, including:

- Temporary heat and ventilation of the interior,
- Heritage protection measures,
- Mechanical portion of temporary fire protection systems,
- Mechanical ancillary systems required to maintain electrical systems supporting the generator and other life safety equipment.

- Temporary structural supports
- Temporary electrical requirements related to the construction site. Scaffolding enclosures and interior work (while existing electrical systems are removed) such as;
    - Power, lighting, security and fire protection,
    - Emergency power to maintain heat, lighting and fire protection and supply to exterior services, and
    - Lightning protection, as required.

Fire protection during construction shall be governed by:

- Treasury Board Fire Protection Standard (http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=17316&section=text)
- HRSDC FC 301: Standard for Construction Operations (http://www.hrsdc.gc.ca/eng/labour/fire_protection/policies_standards/commissioner/301/page00.shtml),
- HRSDC FC 302: Standard for Welding and Cutting (http://www.hrsdc.gc.ca/eng/labour/fire_protection/policies_standards/commissioner/302/page00.shtml), and
- National Fire Code and other applicable standards, regulations and Acts.

Fully coordinated and continuous follow-up for implementation compliance and further site issues of this particular aspect of temporary work cannot be understated. The provision of this work will be critical to the successful completion of the project. The Consultant must take a leading and proactive role in this matter throughout the entire design and implementation periods, but particularly so during the period of abatement and demolition work.

5.9 Schematic Design

The Schematic design prepared by others, provides a baseline addressing the current state of the building, an analysis of options and the recommended options for rehabilitation. The draft schematic design and report will be available in Phase 2 to the Proponents, see section PD 7.2. The final schematic design will be provided to the successful proponent.

5.10 Architectural & Interiors

The rehabilitation of the building will also include the following;

a. Upgrades to life safety and building codes,
b. replacement of roof membranes necessary to maintain and protect the assets and provision for roof anchors if required
c. Expansion of the loading facilities and an underground service spine outside the current footprint,
d. Rebuilt exterior east wall to include - new exterior cladding and elevators and staircase
e. Refurbishment or replacement of windows
f. Repair and or restoration of character defining elements
g. New vertical circulation throughout

5.11 Structural

Currently the GCC only partially conform to the current PWGSC policy for seismic resistance (*PWGSC RPS Policy Seismic Resistance of PWGSC Buildings*). The seismic reinforcement of the GCC is proposed as part of the holistic rehabilitation. It will include;

a. Reinforcement of the structural systems to meet current code loading criteria,
b. Seismic upgrade of structure and exterior cladding (non structural elements) including conservation of the masonry containing repair, replacement, resetting, consolidation and repointing.
c. Removal of columns and excavation under the Ticketing Block
d. Excavation outside of the building footprint on north side
e. Upon request by PWGSC submit all structural calculations for review.

5.12 Mechanical

Full replacement of the mechanical equipment and systems will be required for the rehabilitation. An existing constraint relating to building heating and cooling is that the steam and chilled water from the CHCP will be retained for the source of current heat and cooling, however, in the future steam will be changed to hot water. All buildings are to be designed to operate on low temperature hot water as well (*Guideline for Hot Water Heating System for Buildings Connected to Central Heating Plants in NCA)*.
The mechanical systems will need to have a level of flexibility to support a wide fluctuation of loads (high diversity factor) in the Senate Chamber and Committee rooms' usage and evolving future uses and occupancies.
The new mechanical systems must be closely coordinated with all other building systems and closely integrated with the heritage character defining elements of the building.

5.13 Electrical

Full replacement of the electrical equipment and systems will be required for the rehabilitation. It is assumed, but to be confirmed by the Consultant, that the existing electrical vault location is to remain. The generator once all operational and standard tests are performed will remain in current location but be reinstalled with current seismic requirements. The existing main diesel fuel storage tank is buried outside on the east side in the location of the future service tunnel, the fuel tank and fuel lines will need to be relocated.

5.14 Vertical Transportation

The existing vertical transportation systems are obsolete and require replacement. The current schematic design includes four (4) new interior stairwells to meet requirements and seven (7) new elevators (passenger and freight).

5.15 Landscape

a. Site development including reconfiguring driveways, parking, and implementing exterior physical security measures
b. New landscaping of the eastern and southern sides of the site

c. Interim physical measures to be implemented on the west side of the site
d. Crime prevention through environmental design incorporation in site development

5.16 Exclusions

The current project definition does not include the following:

a. Repairs or upgrades to the existing pedestrian and service tunnels to the Chateau Laurier
b. Increase or upgrade to incoming building services (Senate: excluding IT)
c. Landscaping of the Northeast land below overpass and beyond to intersection
d. Full Blast Resistant Measures
e. Any additional parking beyond 10 existing parking spaces

PD 6 BUILDING COMPONENTS AND CONNECTIVITY

6.1 General

The provision of Building Components (Furniture, fittings and equipment) and Connectivity (IT/MM/SS) for the project is governed by a Memorandum of Understanding for the Building Components and Connectivity (BCC) Program of the Long Term Vision and Plan for the Parliamentary Precinct, dated April 19, 2000, (Revision 1, January 14, 2003). The objective of the BCC program is to meet the operational requirements of the Client / User to allow immediate occupancy of the space. Building components means building fixtures, furnishings and equipment. Building connectivity means the physical, electronic and other systems – namely Information Technology, Multi-Media and Integrated Security Systems (IT/ MM/ ISS) - that connect buildings and the workstations in them.

BCC Components include:

- Commercially Available Furniture,
- Case Goods,
- Purpose-Built Furniture and Shelving,
- Soft Seating,
- Chairs,
- Task Lighting,
- Heritage Furniture,
- Art and Artifacts,
- Maintenance Equipment,
- Food Service Equipment,
- Security Equipment,
- Health and Safety Equipment,
- Material Handling Equipment,
- Other Equipment (such as computers, photocopiers, printers, scanners, digital radios, etc) in support of the delivery of common services (i.e., security posts, printing services, building management).

BCC Components do not include the following:

- Office equipment related to administrative functions such as: computers, printers, fax machines, television sets, VCRs, converters, phone sets or radios,
- Office Accessories such as: garbage cans, supplies, plants, decorative drapes and rugs,

BCC Connectivity includes Parliamentary Precinct Directorate campus-wide as well as building-specific items, including:

- Infrastructure fit-up,
- Cabling,
- Integrated Security System,
- CATV,
- Network,
- Telephony,
- Vote Chimes,
- Multimedia,
- External Media (Broadcast),
- Digital Radio,
- Exterior Cameras, Communications Centre
- Operational Training,
- Initial Operation and Maintenance Requirements,
- Campus Fire Alarm Monitoring System,
- Extended Warranties.

BCC Connectivity does not include the following:

- Operation and maintenance requirements subsequent to transfer of assets,
- Base building renovation and construction activities (such as pathways, cable trays, conduit, etc.).

6.2 BCC for Information Technology/ Multimedia/ Integrated Security Systems

The Senate will provide requirements and standards and they will develop project specific solutions for BCC Connectivity: IT, MM and ISS planning and design for this project.

<u>The Consultant is required to design and integrate/coordinate BCC connectivity program with all base building and fit-up requirements which support a fully coordinated set of construction documents</u>. Structured cabling shall be procured separately but installed during the base building and fit-up construction. Active components (routers, switches, etc.) will be procured and supplied by others, installed after Substantial Completion.

6.3 BCC for Security

The Consultant will provide the requirements and standards for physical security, develop the Security Design Brief, security requirements and develop the Security design.

6.4 BCC Components

The Consultant shall be responsible for the preparation of comprehensive documents to enable the procurement of loose furniture, based on Senate requirements. These furniture procurement packages will meet all furniture requirements (free standing) for the project. The Consultant shall be responsible to develop a quantity listing, Statements of Work and summary specifications for all required BCC components, including security. For those items not available through existing PWGSC Standing Offer Agreements, the Consultant will need to develop specifications.

The Consultant shall be responsible for the coordination, installation, and inspection of all BCC components in consultation with the Senate to include but not to be limited to the loading dock availability and coordination through the CM. IT connected products should be considered first priority to other BCC components with respect to schedule & sequencing.

6.5 Scope of Building Components and Connectivity (BCC)

6.5.1 Overview – Information Technology, Multimedia and Security

The Senate maintains responsibility, Technical Authority and control on the definition of requirements and specifications for all aspects associated with the BCC IT/MM/ISS and other BCC elements related to the Senate.

The Senate, or their specialist consultants (retained by PWGSC for the Senate), will prepare a detailed Statement of Work (SoW) for each BCC information technology, multimedia and integrated security system work package. The Consultant shall plan, design, coordinate, fully integrate the infrastructure to accept information technology, multimedia and integrated security system as described in this section, including but not limited to conduits, cable trays, technical grounding, lighting (including television and teleconference) and HVAC to ensure a seamless base building solution, with due regard to how it impacts aspects of lighting, acoustics, power requirements, maintainability, etc. The objective for the Consultant is to plan for segregated pathways and minimize interferences with other building services.

Separate contractors will be used for structured cabling, multimedia (cabling and fit up) and integrated security system end devices supply and installation. These contractors will be procured separately from the main construction contract by PWGSC, on behalf of the Senate, but will work under the control of the Construction Manager.

Structured cabling (IT/ISS) will be supplied, installed and commissioned when the base building and fit-up work is underway, prior to Substantial Completion.

Sensitive multimedia cabling in committee rooms, multimedia and IT components and security end devices will be installed separately after Substantial Performance. Due to the sensitive nature of electronic equipment, the construction site must be maintained as clean as possible during and after installation of electronic components. The Consultant

shall instruct the Construction Manager to control dust migration.

The design project schedule must include reasonable durations for the Senate to prepare SoWs and review base building and fit-up tender documents.

6.5.2 Integrated Security Systems (ISS)

The GCC will be housing a number of key parliamentary functions including Committee Rooms, Parliamentary Office Units and the Senate Chamber. A Threat and Risk Assessment (TRA) will provide information and guidance related to the future security design. The Senate is currently undertaking a TRA.

The Consultant will provide design requirements, guidelines, security construction documents and related addenda. The Consultant will coordinate the full integration of the security component pathways, physical and other related security features into the base building and fit-up, achieving the required solutions. The Consultant shall coordinate and integrate security requirements with the base building and fit-up systems. Security equipment will be provided and installed through a separate PWGSC contract.

In defining the requirements, providing the security design brief, concepts of operations and detailed the design, the Consultant must consider a number of factors, including but not limited to:

Architecture

- Crime Prevention Through Environmental Design (CPTED)
- Guidelines & Criteria for Future Planning & Construction Projects; Master Security Plan
- Site Hardening (specially walls & doors, structural integrity, standoff distances, redundancy of building systems)
- Security Lighting
- Windows (glass types, bars, film, security shutters, blast curtains)
- Doors, Door Hardware
- Acoustics & Speech Security
- Fences
- Gates
- Sustainability and Green Globe Standards
- Barriers (bollards, planters)
- Security Posts and Screening Facilities

Personnel

- Administration & Organization
- Roles and Responsibilities
- Screening, Training
- Security Posts and Post Orders
- Policies & Procedures

With regards to technology, the Senate and their Specialist Consultant will provide the standards and expertise related to the following technology areas:

- Integrated Security Systems
- Access Control
- Photo Identification
- CCTV Surveillance
- Intrusion Detection
- Security Intercom
- Other Systems
- Integration
- Contraband Detection (weapons, explosives, biohazards, drugs, audio recording devices, cameras)

6.5.3 BCC Connectivity

CATV, Voice and Data, Security Cabling, Chimes and Multimedia

Those systems will be designed by an independent specialist who is responsible and accountable for the design and is typically supported by consultants.

The system designs must be fully integrated into the base building and fit-up design of Consultant, as it progresses and not after such design is completed.

Pathways, conduit run, recessed terminal boxes and junction boxes, etc shall form part of the Consultant drawings and coordinated with all disciplines.

Contract documents must clearly describe the extent and timing of work such that the CM can properly plan, coordinate and control the work site, while at the same time allowing the work to progress in a timely manner.

The specialist will inspect the work site regularly, validating the extent and quality of the work completed and making recommendations to the Consultant and PWGSC Departmental Representative for progress payments when warranted.

6.5.4 BCC Components

Furniture & Equipment

The Senate is the Technical Authority for all BCC components. The Consultant's responsibility includes design services for furniture and equipment required to provide for occupancy and operation of the GCC. The heritage furniture in the current Speaker's suite, Reading Room, and the Chamber will be relocated from the Centre Block to the GCC building, relocation requirements (protection, transportation etc.) will be the responsibility of the Consultant. Committee Room furniture tender docs have been developed and will be procured for the GCC, finalisation of tender packages, coordination and management of CR furniture will be the responsibility of the

Consultant. Office furniture will be procured through PWGSC Standing Offer as per the Senate standards, preparation of tender packages, coordination and management of office furniture will be the responsibility of the Consultant. All other catalogue furniture will be procured through other various PWGSC Acquisitions procurement vehicles, preparation of tender packages, coordination and management of all catalogue furniture will be the responsibility of the Consultant. Built-ins will be considered part of the base building contract.

Responsibilities include:

- Furniture Layout and Design – Consultant,
- Component/ Furniture statement of Work/specification – Consultant,
- Tender via PWGSC Standing Offers or MERX – PWGSC,
- On site verification of delivery and correct installation, deficiency lists – Consultant and User/Client (Technical Authority).

Heritage Furniture and Art and Artefacts

The project also includes the re-location of the heritage furniture and Art and Artefacts from the Centre Block, selected for re-location by the Senate. The heritage furniture, art and artefacts are currently in the Chamber, Speaker, and Clerk's offices. Parts of the collection will move with these functions to the GCC. The Consultant shall ensure the furniture and art and artefacts are fully integrated into the project design. Chamber heritage furniture will also require IT integration.

Building Signage

The Consultant responsibility includes the design, drawings and specifications of all the Way Finding and room signage in the building.

6.6 BCC Procurement Approach

Building components include furniture as well as equipment. Built-in components and some equipment shall be part of the construction documents that will be tendered by the Construction Manager. BCC items will be tendered separately by PWGSC (Not the Construction Manager). The Consultant shall develop the necessary BCC Components tender packages. The procurement of the Components will require a significant quantity of individual tender packages.

PD 7 EXISTING DOCUMENTATION

7.1 Existing Documentation - Available for all proponents (on Internet)

a. Building on a Solid Foundation: A New Approach to Implementing the Long Term Vision & Plan (http://www.tpsgc-pwgsc.gc.ca/collineduparlement-parliamenthill/apropos-about/bbs-bsf-eng.html)

b. Restoration of Canada's Parliament Buildings (http://www.tpsgc-pwgsc.gc.ca/collineduparlement-parliamenthill/batir-building/rest-colline-hill-eng.html)
c. FHBRO Heritage Character Statement (http://www.pc.gc.ca/apps/dfhd/page_fhbro_eng.aspx?id=3821)
d. Standards and Guidelines for Conservation of Historic Places in Canada (http://www.pc.gc.ca/docs/pc/guide/nldclpc-sgchpc/index_e.asp)
e. Treasury Board Policy on the Management of Real Property (http://www.tbs-sct.gc.ca/rpm-gbi/doc/gmrp-ggbi/gmrp-ggbi06-eng.asp#a6.6.5)
f. The Treasury Board Accessibility Standard for Real Property (http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=12044&section=text#cha3)
g. PWGSC National CADD Standard (http://www.tpsgc-pwgsc.gc.ca/biens-property/cdao-cadd/index-eng.html)
h. Guide to Working with the FHBRO (www.pc.gc.ca/progs/beefp-fhbro/ManRefrnce.aspx)
i. *Guide to the Management of Movable Heritage Assets (*http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=13872&section=text)
j. *Treasury Board Policy on the Management of Materiel (*http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?section=text&id=12062

7.2 Existing Documentation - Available for proponents in Phase 2 (on CD in the language written by contacting the contracting officer):

a. Heritage Conservation Guidelines (DFS/Arcop)
b. Draft Functional Program (DFS)
c. Draft Schematic Design and Report (DFS/Arcop)
d. Site Analysis Report and Draft Landscape Schematic Design (IBI-CHBA)
e. Existing Building Plans
f. Construction Management Terms of Reference and Request for Proposal
g. Designated Substances Report (Golder)
h. Environmental & Geotechnical Consultant Request for Proposal
i. Government Conference Centre, Heritage Conservation Plan (Barry Padolsky – IBI) Volume 1 & 2
j. Building Condition Report Government Conference Centre (Zenix Engineering, 2006)

7.3 Existing Documentation - To be made available for successful Proponent
Documents made reference to within this document, beyond list below, will be made available to the successful Proponent in the language written:

a. A comprehensive BIM model of the existing facility and as found conditions.
b. FHBRO Building Report: 88-28
c. GCC Rehabilitation Project Master Schedule (Primavera and hard copy)

d. PWGSC Federal Office Building Standards (FOBS)
e. Heritage Conservation Plan, Feb 17 2012 (refer to Appendices section)
f. GCC Masonry Pilot Project Report
g. Government Conference Centre (GCC) Envelope Investigations
h. Draft Exploratory Openings Investigations & Reports
i. Geotechnical Subsurface Assessment
j. Threat and Risk Assessment
k. Final Schematic Design (AutoCAD, PDF).
l. PWGSC RPS Policy Seismic Resistance of PWGSC Buildings
m. Guideline for Hot Water Heating System for Buildings Connected to Central Heating Plants in NCA

PD 8 CONSULTANT SERVICES

Members of the Consultant team may have the necessary qualifications and expertise to provide services in more than one discipline or specialty.
The consultant team for this project must be capable of providing the following integrated services:

8.1 Architecture, Interior Design and Specialty Services:

- General Architecture
- Interior Design
- Urban Design
- Sustainable Design, (LEED accredited professional or Green Globes Professional)
- Universal Accessibility,
- Building Envelope Science with expertise in Heritage Buildings,
- Indoor / Outdoor Air Quality Design and Control,
- Hardware, with expertise in heritage buildings,
- Signage and way-finding,
- Lighting, with expertise in heritage buildings and broadcast lighting,
- Acoustics

8.2 Heritage Building Services:

- Heritage Conservation Architecture
- Heritage Conservation Structural Engineering
- Masonry Conservation
- Heritage Materials Conservation for plaster and wood.
- Building Science Engineering

8.3 Engineering and Specialty Services:

- Civil
- Transportation/traffic
- Municipal

- Structural / Seismic (with heritage building conservation specialty)
- Mechanical
- Electrical, including expertise in IT and communications, multimedia and security systems
- Power systems including UPS, backup generators and supplementary power
- Building Automation/ Energy Management Control Systems
- Food services, FSCI professional membership
- HVAC, with expertise in zoning and dynamic buffer zones
- Fire Protection, (separate from the Mechanical/Electrical consultants)
- Vertical Transportation
- Security
- Environmental Design (Indoor/Outdoor air quality design and control)
- Commissioning (specifications, design intent, witnessing and manual development)

8.4 Regulatory Analysis, Planning and Development Services

- Building code and life safety
- Universal Accessibility
- Municipal Zoning
- Occupational Health and Safety

8.5 Project Control Services:

- Cost Planning, Estimating and Control (PQS)
- Time Planning, Scheduling and Control (recognized specialists)

8.6 Specialty Consultant Services

The following outlines the expectations regarding specialty consultant expertise required by the project:

8.6.1 Time and Cost Specialist(s)

Cost estimates are required as prescribed in *Doing Business with NCA.*
Delivering this project on time and within the approved construction budget is a high priority. The purpose of cost planning and cost control is to assist in the accomplishment of project cost objectives. The Time Specialist shall play a major role in the development and monitoring of the project schedule and provide scheduling services from commencement of the award of the Consultant contract, through to construction and commissioning completion, including the warranty period. Both services are a continuous and interactive process involving planning, action, measurement, evaluation and revision.
See Required Services RS 7 & RS 8.

8.6.2 Sustainable Design Specialist(s)

The Consultant shall include expertise in sustainable design having experience in environmental protection and sustainable development policies and strategies,

environmental assessment policies, programs and guidelines, environmental management systems, strategies and tools, and sustainable communities. The expertise must be LEED certified professional or have equivalent training and be familiar with Green Globes Design for New Buildings and Retrofits. The sustainable design specialist must be prepared to work in a cross disciplinary fashion and participate in the Integrated delivery approach.

8.6.3 Buildings Controls Specialist

The Consultant shall have a 3rd party building controls specialist with expertise in Energy Monitoring and Control System (EMCS). This specialist shall co-ordinate the controls interface for mechanical, electrical and possible other building infrastructures such as fire alarms and to design the interface and the functional integration of all devices required to meet the building's proposed building targets. The EMCS shall be direct digital control (DDC) technology with networked distributed processing and be user-programmable in the field for all required automated functions of all energy and water consuming systems.

8.6.4 Building Code and Life Safety Specialist

The Consultant must have specialized expertise in building code analysis and life safety system design requirements (code specialist). The code specialist will provide detailed assessment of building assemblies and provide written direction to the Consultant and PWGSC with respect to all building code, life safety and construction operation requirements, as well as providing direct input to the detailed design and participate in the execution of all life safety testing, at each phase of occupancy. The code specialist will prepare both NBC and OBC code matrices and tables of equivalencies throughout the project and assist in the negotiation with municipal and federal officials for building and occupancy permits. The code specialist will place a key role in establishing the requirements for temporary fire protection for construction operations and verify, routinely, that such protection is correctly installed and is being properly maintained.

8.6.5 Acoustics Specialist

The Consultant Team must have expertise in architectural and mechanical acoustic design, construction and measurement, with emphasis on speech security and intelligibility for building components such as Parliamentary Office Units, meeting and committee rooms and the Senate Chamber as well as a good working knowledge of heritage conservation requirements. Expertise is required for broadcasting, speech security and speech intelligibility design with acoustical commissioning. The Consultant's acoustic specialist is also required to prepare for presentation and discussion computer-based acoustic models to demonstrate the performance of proposals to meet acoustic requirements.

8.6.6 Security Expertise

The Consultant must have a physical security specialist, a Security System Specialist and a Security designer.

8.6.7 Vertical Transportation Consultant

The Consultant requires a vertical transportation consultant whose expertise is in vertical transportation and experience with heritage buildings. The vertical transportation consultant shall be retained throughout the project.

DESCRIPTION OF SERVICES

PA 1 PROJECT ADMINISTRATION

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

1.1 PWGSC Senior Project Management

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

The PWGSC Senior Project Manager is directly concerned with the project, is responsible for its progress and is the liaison between the Consultant, other sectors of PWGSC and the Client / Users. PWGSC administers the project and exercises continuing control over the Consultant's work during all phases of the project. Unless directed otherwise by the PWGSC DR, the Consultant is to obtain, or cause to be obtained, all federal, municipal and other governmental or regulatory requirements and approvals necessary for the project.

1.2 Lines of Communication

All correspondence from the Consultant shall be distributed as directed by the PWGSC DR. There shall be no correspondence or communication between Client/Users and the Consultant unless directed by the PWGSC DR. The Consultant shall develop a correspondence protocol to be approved by the PWGSC DR and incorporated into the project.

All communications must carry the contract name/number, PWGSC project title and PWGSC Consultant contract project number and a date in a non-ambiguous format (i.e. 01/09/02 is ambiguous and is not acceptable). Automatic date fields shall not be used except when preceded by the text "Printed on."

1.3 Media

The Consultant shall not respond to any requests for project related information or questions from the media. Such inquiries must be directed to the PWGSC DR.

The Consultant shall ensure that no staff of the Consultant (including sub-consultants or specialist) grants interviews with the media unless requested to do so by the PWGSC DR. All contacts by reporters or others, requesting information about the GCC Rehabilitation project, shall be referred to the PWGSC DR immediately, without response to those requesting the information.

1.4 Security of Information

The Consultant and any person contracted or employed by the Consultant shall not discuss issues relating to the GCC rehabilitation project specifically including, but not limited to building layout, design, security provisions, except as they relate to the direct provision of services related to this contract.

1.5 General Project Deliverables

Where deliverables and submissions include summaries, reports, drawings, plans, specifications and schedules, six (6) copies shall be provided along with a copy in native electronic format and PDF format, unless otherwise specified.

Electronic format shall mean:

Deliverable	**Acceptable PWGSC Format**
Written reports and studies:	MS Word
Spreadsheets and budgets:	MS Excel
Presentations:	MS PowerPoint and/or MS Visio
Schedules:	Microsoft Project/ Primavera
Change management, daily logs, etc.	TBD
Drawings:	AutoCAD
Specifications:	NMS, in MS Word format
Web (Internet)	Adobe PDF, HTML, Macromedia Flash, etc.

Note: All drawings shall be generated and distributed in the format using layering and file transfer protocols as prescribed in 'Doing Business with NCA and PWGSC National CADD Standard (http://www.tpsgc-pwgsc.gc.ca/biens-property/cdao-cadd/index-eng.html). The electronic deliverables shall be provided according to standards listed in 'Doing Business with NCA.

1.6 Acceptance of Consultant Deliverables

Acceptances indicate that, based on a general review of material for specific issues, the material is considered to comply with governmental and departmental objectives and practices, and that overall project objectives should be satisfied. The PWGSC DR, PWGSC Heritage Conservation Directorate (HCD) and other Quality Assurance team, the Client/Users and other Authorities Having Jurisdiction will review the Consultant's work product and will provide review comments. The Consultant shall respond formally in writing to all comments until all points are resolved.

PWGSC reserves the right to reject undesirable or unsatisfactory work; the Consultant must obtain the PWGSC DR's acceptance during each of the project stages before proceeding to the next stage.

No acceptance or approval by PWGSC, whether expressed or implied shall be deemed to relieve the Consultant of professional or technical responsibility. Neither does acceptance of an estimate by PWGSC in any way abrogate the Consultant's responsibility to not exceed the approved construction budget throughout the life of the project, or the

requirement to redesign should the lowest acceptable bid differ significantly from the approved construction budget.

1.7 Co-ordination by the Consultants

The Consultant shall:

- Ensure fully coordinated submissions – *The importance of this can not be understated: PWGSC will reject submissions which fail to be fully coordinated,*
- Coordinate with the work products of Senate BCC Connectivity,
- Coordinate with the work products of independent consultants,
- Ensure clear, accurate and ongoing communication of design, construction budget, and scheduling issues (including changes) as they relate to the responsibilities of Consultant from initial base building reviews to post construction reports,
- Co-ordinate input for the PWGSC DR's risk management plan,
- Co-ordinate quality assurance process ensuring submissions are complete and signed-off by the designated senior reviewer, and
- Ensure to provide adequate site inspection services and attend all required meetings.

1.8 Design & Construction Documents Meetings

As a minimum, the Consultant shall arrange meetings at a frequency of once every week throughout the entire project development period and with all key members of the Consultant Team and the Departmental Representative. As required, other PWGSC staff, PWGSC Consultants, Client/Users groups and the CM may be asked to attend. Meetings shall be held in Ottawa, generally in the offices of PWGSC.

The meetings will be chaired by the PWGSC DR or nominated delegate. The Consultant shall record all issues and decisions and prepare and distribute minutes of all issues and decisions within 2 working days of the meeting. The format of the meeting minutes shall be approved by the DR prior to the issuance. The Consultant shall create and maintain a list of outstanding action items and outstanding issues, and include these lists in the distribution of the meeting minutes.

During these meetings, working sessions will be required in the process of delivering the Required Services such as sessions between the Consultant and PWGSC Technical Resources, Construction Manager, the PMSS PM, Client/Users, BCC Consultants or authorities having jurisdiction. Decisions taken at these working sessions must be ratified at the next Project Team meeting.

1.9 Partnering and Team Building Sessions

PWGSC intends to "partner" both the design phase and construction phases of this project. Partnering is a collaborative, team-building process, based on improving communication and understanding among the project stakeholders to reach a common goal. While the contract resulting from this RFP establishes the legal obligations of the parties, the partnering process strives to establish positive working relationships, which

will maximize the benefits to the project from the knowledge and experience of all stakeholders, while at the same time allowing all stakeholders to maximize their benefits from the project. A successful partnering process leads to improved effectiveness, quality, timeliness and team morale. Members of the Consultant, including representatives from the senior management of all firms shall attend partnering sessions. Representatives of PWGSC, Client/Users and others will also attend partnering sessions.

PWGSC will employ a third party as facilitator for these sessions. The Consultant's cost to attend is to be included as part of the proposed fee for this project.

A one (1) day design partnering workshop shall be arranged during the design phase and another one (1) day session during construction. Those workshops will be arranged in the Ottawa area.

1.10 Workshops

1.10.1 BCC Workshops: Because of the complexity of the delivering BCC, separate workshops dedicated to BCC shall be held. The Consultant shall organize and conduct BCC workshops at the beginning of each phase of the project to identify specific activities, schedule, and scope of BCC for the upcoming phase. Senate representatives and/or their consultants must attend. It is estimated that there will be five (5) BCC Workshops

1.10.2 Client/User Workshops: There will be five (5) client/user workshops during the design development phase

1.11 Value Engineering Session – there will be one (1) value engineering session during design development phase and one (1) session during construction documents

1.12 Project Response Time

It is a requirement of this project that the key personnel of the Consultant and sub consultant or specialist firms be personally available to attend meeting or respond to inquiries within ½ day.

1.13 Submissions, Reviews and Approvals

1.13.1 Authorities Having Jurisdiction

This is a high profile project of national significance requiring a significant investment of public funds. A facility with extensive interventions to a structure of high architectural, historical and national significance is required. Project reviews will be rigorous at the federal level.

The PWGSC DR as well as the authorities identified below will review work in progress on a continuing basis. Formal presentations are required for design and project approvals in accordance with the project delivery phases outlined in Required Services (RS). Ad hoc presentations will be required to various committees and senior officials.

Below is a list of federal authorities that will require presentations and/or submissions for approval. The frequency of meetings indicated is an estimate only [1.12.4]. It will be affected by the project phase, issues and requirements for decisions and approvals. The Consultant shall attend all other meetings as needed and to make presentations to satisfy Authorities as identified.

The following are authorities having federal government jurisdiction over the project:

Authority	Federal Government Jurisdiction
Treasury Board of Canada	Project and contract approvals
Public Works and Government Services Canada	Contracting authority and project delivery
The Senate of Canada, the House of Commons and the Library of Parliament (Client / Users)	Functional design and security requirements and standards, Technical Authority – BCC and Security
PWGSC Project Review Advisory Committee (PRAC)	Design quality assurance
National Capital Commission (NCC)	Federal Design and Land Use Approval for site, landscape, hoarding, building design
Federal Heritage Building Review Office (FHBRO)	Design requirements to ensure preservation of site heritage character.
Human Resources and Social Development Canada (HRSDC)	Fire prevention engineering services, life safety
Environment Canada	Environmental Compliance Management Program (ECMP)

1.13.2 Other Authorities Having Jurisdiction

Although the federal government does not formally recognize jurisdiction at other levels of government, voluntary compliance with the requirement of these other Authorities is required unless otherwise directed by the PWGSC DR. In areas of conflict concerning provincial requirements, federal authority prevails. Codes, regulations, by laws and decisions of authorities having jurisdiction shall be observed. In cases of overlap the most stringent will apply.

PWGSC will voluntarily comply with the applicable Ontario Construction Health and Safety Acts and regulations, in addition to the related Canada Occupational Safety and Health Regulations.

Authority	Jurisdiction
Ontario Ministry of Labour	Employment Standards Construction Safety Designated Substance Management Workers Compensation
Ontario Ministry of the Environment	Environmental Protection Act: 3R Regulations Building Discharges into the air, water and ground Disposal of Designated Substances including Asbestos
Ontario Ministry of Consumer and Commercial Relations – TSSA	Construction Hoists, Elevators, Escalators and Dumb, Waiters, Pressure vessels
City of Ottawa	Planning and Design Submissions for Information Building, Demolition and Plumbing Permits and Inspection Fire Safety, Equipment and access for fire-fighting equipment Ottawa Built Heritage Advisory Committee, Planning Committee and City Council Occupancy Permit
Electrical Safety Authority (ESA)	Electrical Permits and Inspection

The Consultant will, with the assistance of the PWGSC DR, identify any other Authorities Having Jurisdiction and endeavor to ensure that all design work meets or exceeds all codes, regulations and standards of these other Authorities Having Jurisdiction.

1.13.3 Municipal Building Permit and Other Permits

Building Permit/ Occupancy Permits
On behalf of PWGSC, the Consultant will apply through the Construction Manager for building permits from the City of Ottawa, by supplying the supporting documentation for permit application. Payment of the permit shall be the responsibility of the Construction Manager. The Consultant shall participate in any negotiations and assist in resolving related issues prior to tender of each package. Submissions will begin at the end of Design Development and will be followed by a final submission at 99% tender

documents. Additional submissions/presentations may be required if requested by the City.

The Construction Manager will apply for interim and final Occupancy Permits and coordinate the resolution of all outstanding issues relating to obtaining the permit. Municipal authorities will have access to the site as required and will provide reporting of their findings. The Consultant shall address and respond to all issues raised by Municipal officers.

1.13.4 Presentations and Submissions

1.13.4.1 Senior Management - PWGSC and Client/ User

Purpose of Review and Approval: Final decision authority for all options;
Submission Format: oral presentations including presentation decks/boards,
Submission Schedule: Submissions are reviewed at key milestones including review of the schematic design update phase, design development phase, at 100% tender documents and for key mock-ups, when completed work has been forwarded to the PWGSC DR;
Number of Submissions: One (1) mandatory per submission as outlined above plus any follow-up reviews.

1.13.4.2 Project Team (including HCD/Quality Assurance Team, Buildings in Transition Team and Client/Users and CM reviews)
Purpose of Review and Approval: Program, Design and Technical Quality Assurance and constructability reviews
Submission Format: reports, drawings and specifications, oral presentations;
Submission Schedule: Submissions are reviewed at the schematic design update review phase, design development phase (50%, 99 % and 100% completion), construction documents phase (66%, 99% and 100% completion), when completed work has been forwarded to the PWGSC DR;
Expected Turnaround Time: Schematic Design Update review 4 weeks, DD 8 weeks and 2-4 weeks for each construction documents submission
Number of Submissions: Review/submit schematic design update report: Two (2); Design Development: Three (3) (50%, 99 % and 100% completion); Construction documents: Three (3) (66 %, 99 % and 100 %); Tender Documents: One (1), plus any follow-up reviews at each stage. Submissions are outlined above and supplement Senior Management presentations noted in PA 1.12.4.1.

1.13.4.2 Project Review Advisory Committee (PRAC)

Purpose of Review and Approval: Design Quality Assurance;
Submission Format: report, drawings and specifications, oral presentations;
Submission Schedule: Submissions are reviewed at schematic design and design development when completed work has been forwarded to the PWGSC DR;
Expected Turnaround Time: the committee will provide comment and feedback at the presentation followed by minutes in three (3) weeks;
Number of Submissions: two (2) mandatory plus any follow-up reviews.

1.13.4.3 Federal Heritage Buildings Review Office (FHBRO)
Purpose of Review and Approval: Impact on Heritage Character, Heritage and Conservation Quality Assurance;
Submission Format: report, drawings and specifications, oral presentations;
Submission Schedule: Submissions have been reviewed at pre-design, schematic design, and will be reviewed at design development phase and during the construction documents phase; however, since recommendations may necessitate design changes, it is recommended to liaise periodically throughout the planning and design process with the FHBRO office to obtain consensus in the process. These reviews should be scheduled after FHBRO concerns have been addressed.
Expected Turnaround Time: the committee will provide comment and feedback at the presentation followed by a Federal Heritage Building Committee's review letter, usually in 2-4 weeks;
Number of Submissions: Three (3) mandatory plus any follow-up reviews.
Note: Refer to the Guide to Working with the FHBRO for further detail.
www.pc.gc.ca/progs/beefp-fhbro/ManRefrnce.aspx

1.13.4.4 National Capital Commission (NCC)
Purpose of Review and Approval: Planning, Site and Building Design; Federal Design and Land Use Approval (FLUDA).
Submission Format: report, drawings and specifications, oral presentations;
Submission Schedule: Submissions have been reviewed at the schematic design stage. Submission will be reviewed at the design development stage for Federal Approval (FLUDA – Level 3) at a stage within DD decided by the DR and NCC staff. Supplemental submissions during the construction documents phase are more than likely required.
Expected Turnaround Time: the committee will provide comment and feedback at the presentation followed by minutes in three (3) weeks, formal approval usually follows in six (6) weeks;
Number of Submissions: Three (3) mandatory plus any follow-up reviews.

1.13.4.5 HRSDC
Purpose of Review and Approval: Health and safety;
Submission Format: report, drawings and specifications as required;
Submission Schedule: Schematic Design Update, Design Development, 66% and 99% Construction Documents completion
Expected Turnaround Time: four (4) weeks;
Number of Submissions: until approval has been received.

1.13.4.6 City of Ottawa
Purpose of Review and Approval: To obtain building permit
Submission Format: drawings and specifications
Submission Schedule: submissions are reviewed when completed work has been forwarded to the PWGSC DR for site plan and building permit approvals, interim consultations are required, when the application is submitted on each tender package

Expected Turnaround Time: Dependent on type of submission, usually four (4) weeks to three (3) months;
Number of Submissions: until permit/approval has been received.

1.14 Project Approvals

The project has received Expenditures Authority (EA) from the Treasury Board of Canada. The approval was granted to proceed with project planning and design for the Consultant services. PWGSC will return to Treasury Board and additional Expenditure Approval for the necessary authorities and funding to proceed with construction.

Throughout the project the cost must be closely monitored by the Consultant to ensure that the project cannot exceed the approved construction budget.

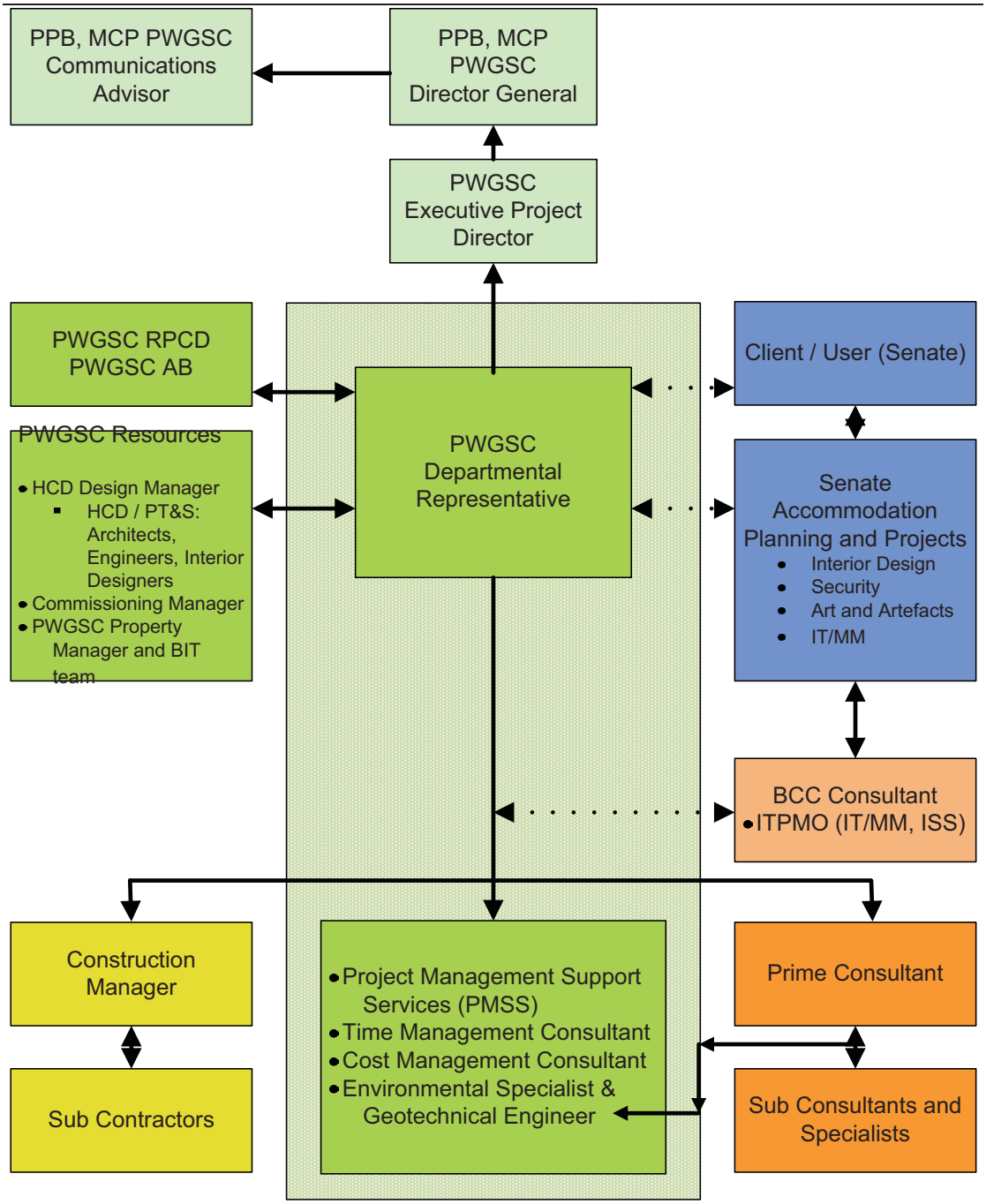
1.15 Official Languages

This project requires some of the services in both official languages. The Consultant must be able to provide bilingual (English and French) services orally, as and when required. These services must include, but not be limited to presentations, interviews, and meetings. Refer to the section RS 10 Bilingual Documents of this Request for Proposal document for additional details related to bilingual deliverables.

PA 2 PROJECT TEAM ORGANIZATION

This project is to be managed and implemented in a collaborative manner. All members of the Project Team are required to work cooperatively at every stage of the design and construction process in order to assure the creation of a successful and meaningful end result. Under the leadership of the PWGSC DR, all team members are responsible for establishing and maintaining a professional and cordial relationship.

The Project Team refers to the key representatives, involved in coordinating and delivering this project. The PWGSC Departmental Representative leads the Project Team, with membership representing those responsible for project implementation. The following chart identifies the organizational relationships. Authorities Having Jurisdiction are not indicated. Solid lines indicate functional reporting relationships. Dotted lines indicate project communication relationships.



2.1 Roles of the PWGSC Project Team and the Client/User

2.1.1 Director General

The Director General holds overall accountability for the project and reports to upper management within PWGSC.

2.1.2 Executive Project Director

The Project Director is accountable for the expenditure of public funds and the delivery of the project in accordance with terms accepted by the Treasury Board. The Project Director reports to senior PWGSC executive management and is the formal point of contact with the Client / Users.

2.1.3 Client / User Representatives

The Senate will play an important role on the Project Team as a stakeholder and a client representative and will participate throughout all stages of the project as it relates to the fit-up components and functional operations of Parliament. The Senate will be represented by its Director of Real Property Planning who will be responsible for the provision and approval of occupancy planning, functional programming, design, fit-up / Building Components and Connectivity (BCC) and move management.

The Client/Users are represented on the Project Team. The Director of Accommodation Planning and Projects represents the Senate and may be represented by a Project Coordinator. The representative is responsible for all internal management and communications of the project within their respective organization. The representatives are the single point of contact of the Client/Users for all project direction. The Director or Project Coordinator is responsible for coordinating communication between all Client/User stakeholder groups, through strong project governance.

Selected internal sectors of the Senate and LoP have assigned Technical Authority representatives on the project team. These may include:

- Security services representative,
- ITPMO representative (Information Technology, Multimedia and Integrated Security Services), and
- Building Occupancy and Components representatives.

As service representatives, the main role of these project team members is to complete all required project coordination, approval and review processes within their respective services teams and authorities.

Appointed members of other respective organizations will represent their user groups. The Project Coordinator will coordinate all input and approval seeking processes with these representatives. Key user groups in include, at a minimum:

- Speaker
- Procedural Services
- Security
- Legislative
- Leadership
- ITPMO
- Food Services
- Press Gallery
- Maintenance & Material Handling
- Library of Parliament
- International Association of Conference Interpreters

The objective of the Project Coordinator is to ensure that the building design satisfactorily meets the requirements of the program while providing a work environment appropriate for the occupants and ensuring approvals, as required, are signed off.

The Senate is the Technical Authorities for all BCC work. The Senate will assign an on-site manager/ representative/project officer for connectivity, multimedia and integrated security systems as the Technical Authority, inspecting and certifying work as it progresses.

2.1.4 PWGSC Departmental Representative

The Senior Project Manager is the Departmental Representative for this project. The Senior Project Manager is accountable to the Project Director for management of the project implementation. The DR can delegate to the project manager. The Consultant reports to the PWGSC DR.

2.1.5 Project Management Support Services, Scheduling and Cost Consultants

PWGSC has engaged an external Project Management Support Services firm (PMSS) to provide project management, construction advice and project management administration support for the PWGSC Project Manager. PMSS reports to the PWGSC DR and will assist in the day-to-day management of the project. PMSS will operate on this project as an extension of and part of the PWGSC Project Manager's responsibilities.

These firms will provide independent 3rd party review of information produced by the Consultant and Construction Manager and its sub-contractors.

2.1.6 PWGSC Senior Communications Advisor

The Senior Communications Advisor is the PWGSC representative responsible for all communications requirements and activities including contact with the media and the public.

2.1.7 Property Manager

The PWGSC Property Manager is the departmental representative as the building operator and manager. The Property Manager and members of the Buildings in Transition Team (BIT) are present on the Project Team to ensure facility management requirements are identified and incorporated into the project. The Property Manager and BIT team will play a very active project role during project commissioning and turn over.

2.1.8 Heritage Conservation Directorate (HCD) and the Quality Assurance Team

The HCD and Quality Assurance Team provide expert advice and quality assurance for key architectural, conservation, engineering and interior design professional disciplines including design reviews to ensure technical requirements are suitably defined and incorporated through all phases of research, planning, design and implementation. The HCD and the Quality assurance Team will participate regularly in design phases and will review Construction Documents. During construction, the technical resources may attend

Construction Management meetings and field review on an *ad hoc* basis to advise the PWGSC Project Manager.

2.1.9 PWGSC Commissioning Manager

The PWGSC Commissioning Manager represents the Client/Users, Project and Property Manager's interests and maintains overall responsibility for representing PWGSC in the commissioning process. The PWGSC Commissioning Manager is responsible for overseeing all commissioning activities during the development, design, implementation, and post construction stages of the project, assuring that all program issues are addressed. Responsibilities include the review and input into the approval of commissioning schedule, approval of commissioning report and certification of final completion and input to the evaluation report. The Commissioning Manager will review O&M reports and commissioning specifications, training and performance verifications procedures at all stages of the project and will ensure all O&M aspects are addressed.

Throughout the project, the Consultant will work closely with the PWGSC Commissioning Manager. Reporting to the PWGSC DR, the Commissioning Manager will review and approve all documentation at all stages of the project delivery and will monitor all commissioning activities, including the accuracy of reported results and manuals produced by the Consultant and Construction Manager.

2.1.10 Construction Manager

The Construction Manager leads the construction team, which comprises of its own workforce and all construction sub-trades retained by the Construction Manager. Tendering and award of the multiple construction trade packages is the responsibility of the Construction Manager.

The Construction Manager acts as Constructor in charge of a single integrated construction site. Construction site health & safety rules are established and enforced by the Construction Manager. All individuals working on site, including project team members, must respect these health & safety rules and will be required to follow a site induction before being permitted access to site.

The Construction Manager formally reports to the Departmental Representative in all matters. The Construction Manager will also form part of the Integrated Design Team and will participate in design meetings, provide constructability advice, and provide recommendations for construction phasing and tender package sequencing.

REQUIRED SERVICES

General Requirements

The Consultant shall deliver integrated and coordinated professional services in accordance with the requirements set forth in this Request for Proposals. All services must be provided in accordance with the requirements and standards identified in ***Doing Business with NCA***. The Construction Documents shall be completed separately for each tender issuance and include:

Construction Documents: 66%, 99%, 100% Tender Documents
Tender Call, Bid Evaluation and Construction Contract Award
Construction and Contract Administration
Commissioning, Operation and Evaluation

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RS 1 SCHEMATIC DESIGN UPDATE

1.1 Schematic Design Overview and Intent

This stage is intended for the Consultant to review and report on all aspects of the schematic design and project requirements. It provides an opportunity for the Consultant to demonstrate their full understanding of the project and accept the schematic design prepared by others. The Consultant will deliver a concise Report (Schematic Design Update Report) that will confirm the general direction of the project elements, supplement the Schematic Design where required and detail how the Consultant will address the project requirements and schematic design. The Consultant shall analyze the constructability of the schematic design with the CM and advise on the construction phasing process and duration. This approved deliverable will become the formal Project Work Plan and will be utilized throughout the project to guide the delivery.

Concurrently, while the schematic design update report is being developed the Consultant shall also produce the following during this phase:

1. The design development and construction documents for the abatement and demolition work. (See RS 2 and RS 3). The Consultant will also development the temporary services design for the AD construction. The Consultant in consultation with the CM shall be required to identify and design temporary architectural, structural, mechanical, and communication, electrical and fire protection requirements related to the abatement and demolition tender packages.

2. The Consultant shall also produce the preliminary salvage or disposal recommendations for each item of the HCD Heritage Material Database based on the schematic design. The Consultant will determine the items being considered for removal, items that will remain in place and protected throughout construction and items that will be removed and reinstated. The Consultant will also prepare Heritage Material Management Protocols document. It will describe the protocols associated with handling heritage materials on the project. It is to be read in conjunction with the contract documents (including Abatement and Demolition).

3. The schematic design for BCC and security as it was not included in the schematic design prepared by others. The Consultant shall review and analyze all available project information, consult with PWGSC and the Client/Users.

1.2 Activities

- Visit the project site to review and verify existing conditions reported by others and as observed in order to update the schematic design.
- Attend project start up meeting and subsequent weekly team meetings; record and distribute meeting minutes.
- Participate in partnering/team building session.

- Participate in meetings (1 each) with FHBRO and NCC staff to finalized Abatement and Demolition strategy
- Attend separate bi-weekly meetings with the DR, Construction Manager and its team to discuss project, establish a continuous line of communication, constructability review, implementation strategy and tender packages, schedules and cost implications and other issues that the CM may have. Those meetings may be combined with the weekly team meetings.
- Confirm that all necessary pre-design/design documentation required for this project is available and confirm that the information is still current and up-to-date. Notify the PWGSC DR of any missing and /or out-of-date reports.
- Prepare a list of activities including an investigation plan and materials testing plan required to verify existing conditions report by others and as observed in order to update the schematic design
- Coordinate directly with the PWGSC Environmental Consultant for the consolidated waste inventory and coordination of the abatement work with the demolition scope.
- Review and validate the schematic design prepared by others and identify any gaps and issues that are required to be addressed during design development.
- Review and validate the Schematic Design seismic assessment and outline the methodology for additional structural and seismic analysis for design and construction.
- Outline quality management process for the consultant team to ensure comprehensive coordinated consultant services;
- Review and analyze project schedule and activity durations in section PD2.
- Review and update the cost plan and budget;

1.3 Deliverables

Submit a Schematic Design Update Report for review and comment by the PWGSC DR. Revise as required by the PWGSC DR. Resubmit for acceptance. The Schematic Design Update Report is to be read in conjunction with the schematic design report (produced by others) and should not contain duplication. It should be considered as a supplement to the schematic design report. The intent is only to augment any missing information, identify any gaps /issues not captured in the schematic design.

The Final Schematic Design Update Report will include the Schematic Design for BCC and Security as an Appendix and will contain a narrative summary of both the Abatement and Demolition approach and Heritage Material Management Protocol. However, these will be separate submissions to ensure their completions are not interdependent.

The following outlines the expected deliverables listed in the Overview and Intent above at the Schematic Design phase of the project.

1.3.1 Schematic Design Update Report

The Report will include any required updated drawings and as a minimum it will contain

the following:

A. Executive Summary
B. Schematic Design Review

Aspects to be included, at a minimum:

i. Gaps analysis, validation and acceptance of schematic design by all disciplines.
ii. Investigation plan and material testing plan
iii. Previous exploratory work review, including Masonry Pilot Project Report.

C. Implementation Strategy

Complete an in depth review of the implementation strategy. Aspects to be included, at a minimum, are a review and summary of the following:

iv. Multiple contract approach for construction;
v. Implementation plan for demolition in co-ordination with abatement
vi. Summary of temporary service requirements

D. Construction Manager Constructability Review

Meet with the CM regarding the schematic design and discuss, record and provide the following;

vii. Summarize the issues, risks and comments.
viii. Discuss how they will be addressed in the next stage of the project

E. Time, Cost and Risk Analysis:

ix. Review and update of the existing class "C" estimate
x. Identify Project Risks including the identification of the problems, conflicts or absence of information,
xi. Review of milestone dates and project schedule logic, verification that all milestone dates are achievable and logic is practical, review of tender packages and sequence,
xii. Prepare a detailed WBS for all aspects of the project pertaining to the Consultant activities and deliverables,
xiii. Attach current detailed consultant schedule and highlight areas of risk and potential mitigation measures.

F. Appendix: Geotechnical Consultant Information

Append the Geotechnical Consultant review of geotechnical information provided by PWGSC to the Schematic Design Report.

1.3.2 Abatement and Demolition

The Consultant will begin to develop the design development and construction documents for the abatement and demolition work in parallel with the schematic design phase. (See RS 2 and RS 3 for the requirements of design development and construction documents). The Consultant is also required to:

a. Provide an implementation strategy and sequence of work for all abatement and demolition including temporary utilities required during demolition of existing

base building systems for each building block.

b. In consultation with the PWGSC Environmental Consultant, identify any additional exploratory openings or destructive testing requirements in order to accurately incorporate existing conditions into the demolition and abatement construction documents when they are developed.
c. Identify, in consultation with the CM, the temporary architectural, structural, mechanical, and communication, electrical and fire protection requirements related to the abatement and demolition tender packages and for the transitional periods between tender packages, including:
    i. Temporary heat and ventilation of the interior,
    ii. Mechanical portion of temporary fire protection systems,
    iii. Mechanical ancillary systems required to maintain electrical systems supporting the generator and other life safety equipment.
    iv. Temporary structural supports
    v. Temporary electrical requirements related to the construction site. Scaffolding enclosures and interior work (while existing electrical systems are removed) such as;
        a. Power, lighting, security and fire protection,
        b. Emergency power to maintain heat, lighting and fire protection and supply to exterior services, and
        c. Lightning protection, as required.
    vi. Fire protection during construction

1.3.3 Heritage Material Database Recommended Information and Heritage Material Management Protocols.

It is important that the salvage and retention requirements for the buildings heritage material identified in the Heritage Material Database (HMD) and the Heritage Material Management Protocols (HMMP) are completed before the abatement and demolition construction begins. The Consultant shall coordinate and schedule this work with the implementation strategy and sequence of work for the abatement and demolition to ensure construction shall begin June 2014.

<u>Heritage Material Database</u>:
A Heritage Material Database will be created for the architectural components of this classified federal heritage building. This database identifies; the item description, location and quantity; heritage value; material value; and heritage recording. The Consultant shall recommend the salvage/disposal/protect/reinstate requirements for each component based on the project, architectural design, intent and vision and the conservation approach. Further detail shall be provided if the item is selected for salvage or disposal including; who will remove it, storage requirements for long term or short term, outdoor or indoor storage, if the component will be given to a museum/collection, items flagged due to public sensitivity, disposal.

Further investigations and inspections may be required to verify the heritage materials

and their condition in obscured areas of the building (for example behind drop ceilings and under raised floors). Prepare an inspection and investigation plan for the CM to provide access to verify existing conditions. Access for some investigations will only be possible once the building is vacated.

The recommendation provided by the Consultant will be reviewed by PWGSC and one (1) workshop will be required. This database shall be continually updated and maintained during the design and construction phases of the project by the Consultant with monthly update reports to PWGSC.

Heritage Material Management Protocol (HMMP)
The HMMP is a document which is an appendix to the construction specification sections containing the historic – protective measures. This document details the protocol for the CM to follow during construction for heritage materials.
It shall detail as a minimum:

a. the initial material actions,
b. the various steps and types of cataloguing: the purpose of this is to provide guidance to the CM for the appropriate cataloguing of heritage materials that are disassembled from their current location, including those that will be reinstalled or permanently stored.
c. the material handling during removal: the purpose is the provide guidance for the appropriate handling of all heritage material during the removal from their location.
d. the protection, including protection in-situ, protection removal to undertake work, crating protection
e. transportation procedures
f. temporary storage
g. permanent storage
h. unanticipated heritage element discovery protocols
i. unanticipated damage to heritage elements during construction protocols
j. sample heritage material condition report
k. sample crating tag and heritage material I.D. tag

1.3.4 Schematic Design for BCC and Security

The Consultant is required to:

- Gather available information from the functional program, Client/User and technical accommodation guidelines relating to the IT/MM/ISS needs of the project.
- Review the TRA and gather available information from the Client/User regarding security.
- Prepare the following Documents:

1. Security Design Brief and Schematic Design
Provide a narrative document incorporating information from the TRA that provides a

realistic perspective of how security will be implemented within the building reflecting, at high level, all of the elements that must be addressed when contemplating a security posture. These elements include, without limitation, site considerations, systems, security processes, infrastructure requirements, access control, and screening requirements and resources.

2. Security Concept of Operations Report

Provide a concept security design and prepare the concept of operation report. Include in this report the following:

a. Site and facility overview
b. High level review of threats and vulnerabilities
c. Client use description (work process breakdown) and client demographics (e.g. number/type of employees, visitors, contractors)
d. Description of flow of employees, visitors, contractors, public, etc.
e. A narrative of the security posture that reflects the methodology through which the security infrastructure and systems will be applied and utilized in a holistic approach. These elements may include site considerations, systems, security processes, infrastructure requirements, access control, screening requirements, resources, etc.
f. The security requirements necessary to adequately secure the site, building, assets and information.
g. Description of security mitigation measures including:
    - Physical security measures including security zones, security levels and architectural, landscaping and traffic control elements (site hardening, security lighting, windows, doors and door hardware, acoustical requirements, fences, gates, bollards, barriers, security posts and screening, etc.)
    - Security systems components (access control, photo identification, CCTV, intrusion detection, security intercom system integration, contraband detection, eavesdropping recognition) and strategies for use (access control policies, intrusion alarm monitoring procedures, CCTV surveillance strategy and security communications use and integration).
    - Security systems configuration (high level)
    - Description of sequence of events & operations of security systems and components
h. Obtain the following information from the Client regarding security personnel: administration & organization, roles & responsibilities, screening, training, post-orders, policies & procedures
i. Updated site and building plans illustrating the use of the site and the security mitigation measures to be provided, demonstrated as a holistic system or environment.
j. Gap Analysis: Identify the gap between the required security practices for this type of building, its use and occupancy and the capacity to meet these standards based on the schematic design. The gap analysis will require the

Consultant to determine and document the variance between security requirements and the current capability of the schematic design to provide these requirements.

3. BCC Components (including Furniture and Equipment)

Prepare a furniture recommendation report based on the functional program, schematic design and on parameters developed in conjunction with DR and the Client/User. This report is to include an examination and update of the following:

a. Review, validate and update the furniture types, layout and preliminary components matrix
b. Prepare power requirements
c. Prepare preliminary finishes
d. Design considerations for displaying the art and artifacts and lighting.
e. Prepare a Class C cost estimate for furniture and equipment.
f. Validate and update furniture procurement matrix
g. Scheduling requirements for the procurement of new furniture and equipment.

The Components Matrix is a tool for recording all items to be procured under the BCC-Components mandate, for following these items through the design and construction document phases, for listing the procurement process for each item and for tracking items through delivery and installation. As such, it will serve as the "Bible" for the BCC-Components.

The Matrix provides a more streamlined strategy for information recording and tracking. Imbedding the information for each component into the CAD plans. In the proposed system, each component is tagged with a code number which is linked in CADD to an Attributes List. The list identified the type, finish, dimensions, connectivity requirement, and other characteristics of the item. Each tag is linked to an Excel document that transfers each code number and its attributes to a table or Matrix. The advantage of the method proposed is that changes to the plan are automatically updated on the Matrix, eliminating a major source of error

1.4 Rebuttals:

Rebuttals to PWGSC Quality Assurance Report, Client/User Review and Construction Manager Review aspects to be included, at a minimum:

- Review and analysis of comments provided by the PWGSC Project Team this could include several separate resources and the Client / User, and
- Written response to all comments provided by the above until the comments are resolved. Provide PWGSC a response document with the previous submission comments at each submission and a final copy of response document.

RS2 DESIGN DEVELOPMENT

2.1 Intent

The Consultant must obtain written authorization from the PWGSC DR before proceeding with Design Development. The Design Development documents consist of drawings and other documents to describe the scope (including the full resolution of all major components), quality and cost of the project in sufficient detail to facilitate a high quality Class B/substantive, design approvals, confirmation of code compliance, detailed planning of construction and project approval. Developed designs, including architectural and lighting concepts, are to be computer drawn.

The Construction Manager will be actively involved during the design process and will provide constructability reviews that need to be addressed and incorporated into the design. He will continue analyzing the constructability of the project and advise on the construction phasing process and duration.

While the design development is progressing, the Consultant shall be accelerating the design and construction documents for the abatement and demolition work in coordination with the Environmental Consultant. It is expected that the abatement and demolition work will be broken into issuances, and the scope of the first abatement and demolition issuance will cover work that is not depended on the final design. This package should identify the scope and details of any additional exploratory work and destructive testing required in order being able to finalize the other heritage and demolition package. The Consultant shall coordinate with the EC to deliver seamless tender issuances to the CM.

The following outlines requirements for the Design Development segment of the project.

1. Abatement and Demolition

The Consultant will develop the design development drawings and preliminary specifications for the abatement and demolition work in accordance with the implementation strategy and sequence developed in RS 1. The design is to include Temporary services including architectural, structural, mechanical, and communication, electrical and fire protection requirements for each construction package. Once the Design Development is reviewed and approved by PWGSC the Consultant will begin the Construction Documents immediately for the AD work.

2. Updated Heritage Material Database Recommended Information and Heritage Material Management Protocols.

The Heritage Material Database and Heritage Material Management Protocols shall be updated when the Abatement and Demolition Design Development is complete and when each subsequent Design Development area is advanced to complete the associated Construction Documents.

3. The Design Development Report.

The report will include all disciplines. The Consultant will be required to have certain aspects of the Design Development Report approved by PWGSC in advance of the final report to be able to proceed with the associated Construction Documents. The design development report shall be complete as a standalone document and (not to be read in conjunction with the schematic design prepared by others and shall have no reference to it.).

2.2 Activities

- Obtain written approval from PWGSC DR to proceed to Design Development Stage;
- Conduct five (5) Client/Users group Information exchange / team meetings, integrated design and partnering and team building session(s); (lead architect and lead key sub-consultants as required)
- Attend weekly meetings (lead architect), record and distribute meeting minutes,
- Participate in partnering/team building sessions
- Participate in Value Engineering session
- Update quality management process for the Consultant;
- Establish and maintain a change control procedure relating to scope change from the approved Schematic Design; and
- Attend separate bi-weekly meetings with the Construction Manager and its team to discuss project, provide constructability reviews, implementation plan, tender packages, schedules and cost implications and other issues that the CM may require. Those meetings may be combined with the weekly team meetings.
- Performing modeling and simulations (such as energy analysis and seismic analysis)

2.3 Deliverables

2.3.1. Abatement and Demolition

The Consultant will develop the design development drawings and preliminary specifications for the abatement and demolition work in accordance with the implementation strategy and sequence developed in RS 1. The design is to include Temporary services including architectural, structural, mechanical, and communication, electrical and fire protection requirements for each construction package. Once the Design Development is reviewed and approved by PWGSC the Consultant will begin the Construction Documents (CD) immediately for the AD work, refer to RS 3.2 & 3.4 for CD details.

2.3.2 Updated Heritage Material Database Recommended Information and Heritage Material Management Protocols.

The Heritage Material Database and Heritage Material Management Protocols shall be updated when the Abatement and Demolition Design Development is complete and when each subsequent Design Development area is advanced to complete the associated Construction Documents.

2.3.3 Design Development

Prepare and submit an integrated Design Development drawings package and Report at 50 %, 99 % and 100 %, for review and approval by the PWGSC DR. Revise as required by the PWGSC DR. Resubmit for acceptance. The report will develop the Schematic Design, consolidate the Scope and Activities identified above, and will be utilized as the benchmark project control document to monitor progress of the project.

The Design Development Reports shall include all services associated with the project in written narrative, drawings, sketches, graphic, and model (traditional and / or computer generated) form. Drawings and other media are to be used to communicate the entire site and building project for all disciplines showing all elements and services to a level of detail necessary to make all design decisions and to substantively estimate the cost of the project. Aspects to be included, at a minimum, are:

2.3.3.1 Executive Summary:

The executive summary is intended to provide a précis of the Design Development Report and outline any recommendations requiring PWGSC approval.

2.3.3.2 Regulatory Analysis:

Aspects to be included, at a minimum, are a detailed analysis of:

a. Detailed building code analysis,
b. Detailed fire, life safety and accessibility strategy,
c. Code consultant's report including requirements, strategies or interventions for protection of the building and future occupants,
d. Detailed standards analysis, and
e. Outcomes from preliminary meetings with Authorities Having Jurisdiction.

2.3.3.3 Conservation:

Aspects to be included, at a minimum, are:

a. Detailed conservation philosophy, approach and application including but not limited to conservation treatments to character-defining elements demonstrating compliance with Standards and Guidelines for Conservation of Historic Places in Canada,
b. Full resolution of the interventions, illustrating and detailing the impacts, repair, refinishing, or replacement of heritage components and materials,
c. Illustrate how new design elements are compatible with the original building heritage value and character-defining elements in terms of planning, massing, vocabulary, materials, details and colour palette,
d. Evaluation of repair materials and conservation treatments,
e. Repair material selection and design conservation treatments,
f. Selection of replacement stones, potential quarry location(s), and stone procurement plan,
g. Procurement strategy for all materials required in heritage spaces,
h. Terms of reference for field quality control testing,

2.3.3.4 Functional Program:

Update the functional program as the design develops. Ensure approvals and justification is documented for any changes. Aspects to be included as a minimum

a. Update Functional Program as required;
b. Update area calculations and analyses;

2.3.3.5 Site Design:

To including as a minimum:

a. Municipal infrastructure, subsurface and above grade services, including capacities and limitations (i.e., storm water drainage, fire protection, domestic water, power, telecommunications, etc.);
b. Temporary services for heat, power and fire protection for each construction package;
c. Site services and infrastructure
d. Loading dock access and strategy;
e. Landscaping including surfaces, furniture, plantings, lighting, etc. Drawings are to clearly indicate existing, remaining, and new.
f. Pedestrian site access
g. Vehicular site access including delivery, shuttle bus etc.;
h. Parking
i. Environmental features including sustainable design strategies (i.e., storm water management, landscaping, etc.);
j. Design of perimeter security on the all side of the building.
k. Exterior lighting
l. Vehicle barriers through physical elements
m. Drawings which demonstrate potential cranes, lifts, lay down areas and scaffold as required for city or other approval by authority with jurisdiction.

2.3.3.6 Architectural:

To include as a minimum:

a. Updated, detail and elaborate the design approach/philosophy and architectural vision for the project;
b. Exterior and interior perspectives/computer-generated simulations/elevations;
c. Updated circulation analysis for the interior and exterior for the public, parliamentarians, vehicles, security, shuttle bus, car service, delivery service access, garbage truck access;
d. Floor plans of each floor showing all accommodation requirements, including all necessary circulation areas, stairs, elevators, etc., and ancillary spaces anticipated for service use. Indicate building grids, modules, etc., and key dimensions. Include roof plans;
e. Drawings should clearly distinguish existing elements, elements to be removed, and new or added elements;
f. Room numbering throughout the building;
g. Detailed 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;

h. Cross-sections through the building(s) to show floor levels, room heights, inner corridor elevations, etc.;
i. Detailed services locations / layouts including elevators, plumbing, HVAC, fire protection, electrical, telecommunications, security, building automation, etc.;
j. Detail sections of walls or special design features requiring illustration and explanation of this stage, including fireproofing methods, physical, acoustical and physical security;
k. Reflected ceiling plans;
l. Architectural, materials, millwork, finishing details and samples to determine choice of materials and finishes;
m. Plans and typical details for built-in furniture;
n. Details of integration of information technology and equipment with built-in furniture;
o. Details for specialty security features;
p. Acoustical design: Provide wall, floor and ceiling sections and details for all spaces requiring acoustics. Include STC ratings for doors, transfer ducts and other assemblies to meet functional program requirements
q. Provide a complete listing and draft specification sections of all National Master Specification (NMS) sections to be used. Submit outline specifications for all systems and principle components and equipment. Particular attention is to be placed on the advancement of all 'front-end' (Division 1) specifications and include all work restrictions. Provide in the outline specifications manufacturers' literature about principal equipment and system components proposed for use in the project.
r. Lighting strategy and design
s. Provide room numbering system to be used by all disciplines for all project documentation, Client/Users to be involved in development of same.
t. Signage concept of way finding and signage design

Interior Design

a. Description of the family of interior finishes within the various functions, and building areas. Interior architectural elements such as: windows, millwork, doors, walls, ceilings to be described
b. Interior colored elevations of all major rooms, millwork, finishes, and sample boards.
c. Three interior design options for interim Chamber, Reading room, Large CR, Francophonie room and each type of office.
d. Three color schemes for parliamentary office suites, CRs, Chamber, reading room, Francophonie room and cafeteria.
e. Develop a window coverings strategy, prepare 3 options
f. Visual presentations and perspectives/computer generated simulations of the offices, CRs, Interim chamber, the Speaker suite, reading room and the Francophonie meeting room

u. Furniture layout
   i. Development of plans and preliminary specifications for furniture / equipment, including all required layout and location plans of new catalogue
   ii. Furniture Plan layouts with electrical outlets and data outlets shown
   iii. Location, layout and dimensions of all heritage furniture

2.3.3.7 Civil:

To include as a minimum:

a. Site services and building service connections referenced to proposed building outlines, site access roads and sidewalks, including existing and proposed grades and drainage improvements.
b. Locations of manholes (complete with invert elevations), valves, and fire hydrant locations. In addition, identify proposed pipe sizes and slopes, where applicable, and include pipe invert elevations at building foundation;
c. Identify, by means of Design Summary Sheets, pipe capacity and estimated flows for storm and sanitary sewers. Where contributing to an existing sewer, include analysis of impact on existing systems;
d. Provide hydraulic analysis of any relevant alterations to existing water distribution system near the proposed building to confirm anticipated maximum available fire flow.
e. Calculate and compare site flows to building site fire flow; and
f. Provide typical trench and related details, including profiles of below grade services.

2.3.3.8 Structural/Seismic:

To include as a minimum:

a. Structural drawings indicating modifications or new structural systems, structural materials, cladding details, limited bomb blast mitigations, fireproofing methods and other significant or unusual details;
b. Perform the structural and seismic analyses for design and construction using static and dynamic methods; Analyze for dead, floor live, snow, wind, seismic (both 60 % and 100% of NBCC requirement**s)**, all other environmental loads;
c. Develop Structural/Seismic Design Drawings and details indicating existing construction, modifications and new structural systems, structural materials, cladding details, fireproofing methods and other structural details including main building frame and non structural elements
d. Indicate integration of information technology, multimedia and security pathways in floors/walls and relationships with building structure.

2.3.3.9 Mechanical:

To include as a minimum:

a. Site Plan showing service entrances for steam supply, chilled water supply, domestic water supply, sanitary and storm drains and connections to utility services, including all key invert elevations;
b. Drawings showing preliminary sizing of ventilation, cooling and heating systems

showing locations, and all major equipment layouts in mechanical rooms;

c. Indicate primary and sub-metering requirements and locations;
d. Drawings of plumbing and piping systems, showing routing and sizing of major lines and location of pumping and other equipment where required;
e. Drawings of the fire protection systems showing major components;
f. Analysis of selected equipment and plant with schematics and calculations sufficient to justify the economy of the selected systems;
g. Describe the mechanical systems to be provided and the components of each system including mechanical ancillary devices needed to support emergency power systems;
h. Describe the building systems control architecture. Provide preliminary EMCS network architecture, mechanical control schematics, and sequence of operation of each building system; and
i. Explain what acoustical and sound control measures are to be included in the design.
j. Provide separate single line diagram for each mechanical and fire protection system (Steam, hydronic, chilled water, ducts, etc.). Show at a minimum sizing, valves, equipment and interconnectivity between systems. Update the diagrams at each construction documents submission.

2.3.3.10 Electrical:

To include as a minimum:

a. Provide a short narrative description of all systems and major components;
b. Provide data on the total connected load, the maximum demand and diversity factors, and the sizing of the emergency load. Include load bank for testing;
c. Identify Hydro Ottawa requirements, including metering and sub-metering, and indicate short circuit information at point of entry;
d. Elaborate on proposed emergency power scheme and provide preliminary installation details for any emergency generator installation;
e. Indicate metering locations on distribution diagram;
f. Provide typical lighting, power and telecommunication system details for all work spaces;
g. Include lighting design and control schemes for typical lighting arrangements. Restate lighting level objectives to meet the needs. Include lighting system description including control strategy;
h. Elaborate on exterior lighting scheme. Provide typical fixture concepts;
i. Visually describe risers for: normal power, emergency power, telecom, security;
j. Provide reflected ceiling plans.
k. Provide security design development drawings including typical security system details (conduit, boxes, etc.) based on client IT standards that will be included on construction drawings (risers and floor plans);
l. Provide separate fire alarm and IT riser diagrams and floor plans; and

2.3.3.11 Commissioning:

Summary of Commissioning requirements - Refer to RS6 Commissioning the Facility.

2.3.3.12 Sustainable Design:

To include as a minimum:

a. Updated sustainable design opportunities, strategies, updated budgets (i.e. energy, water, waste, etc., sustainable procurement strategies);
b. Energy analysis and energy budget established for all disciplines.
c. Information on all internal and external energy loads in sufficient detail to determine the compatibility of the proposal with existing services, approved concept and energy budget; and
d. Green Globes Design for New Buildings and Retrofits scorecard.

2.3.3.13 BCC Connectivity:

Consultant must update all base building infrastructure requirements from the Client/User relating to the IT, multimedia and security needs of the project.

Incorporate the schedule and budget information supplied by the Client/User into the report. Integrate IT/MM/ISS information and general arrangement drawings from the Senate into design documents.

2.3.314 Security:

a) Vulnerability Assessment:

This design-based report will be developed by the Consultant following a coordinated review of all proposed solutions and processes and will identify new vulnerabilities or issues that have been introduced by the design or have yet to be addressed. This report is intended to be the last opportunity to ensure that the security requirements are validated and confirmed prior to the finalization of the security requirements document.

b) Security Design Development:

The design will serve as a final representation of the anticipated security infrastructure contemplated for the Building that will also serve to confirm among the stakeholders the security approach and serve as the design sign-off prior to moving to construction documentation. The design will be jointly endorsed through a series of workshops (five workshops: architects and security specialist)

c) Security Requirements Document:

The initial requirements document is to express potential solutions to achieve the appropriate security need commensurate with the security mandate and objectives. The document will evolve into a set of tailored draft security requirements, containing the parameters intended to be satisfied by the potential solutions. Stakeholder's requirements that have not evolved into a potential solution are compiled into an annex for discussion at the next iteration.

The proposed final solutions are to be expressed to achieve the stated operational and functional needs. The document will outline the anticipated security requirements, containing the parameters intended to be satisfied by the accepted

solutions. Stakeholder's requirement's, which had not been previously defined, are defined and incorporated as part of the requirements.

d) Physical Security Hardware Schedule**:**

This document will provide detailed specifications and instructions related to the fabrication and installation of all physical security components including locks and associated hardware. Each door shall have its own specification sheet, visual representation of device location and a narrative functionality statement related to the expected method of operation.

2.3.3.15 Building Components (Furniture and Equipment)

To include as a minimum:

a. Validate and update furniture layout plans
   i. Preliminary partitions locations including type.
   ii. Preliminary layout of all furniture and furnishings pertaining to public areas, office areas, support spaces and storage areas.
   iii. Preliminary location and identification of all equipment
b. Update Component Matrix to include: furniture type, quantity, room location, estimated cost and procurement vehicle.
c. Development of the furniture/equipment to be coordinated with interior finishes and colour scheme Discuss and confirm with the DR and the Client/Users the method of furniture procurement to be utilized for this project in order to more clearly define the specific requirements under this section.
d. Through the Departmental representative coordinate with the Client/Users and PWGSC procurement representatives for the definition of the furniture system(s), case goods and custom furniture to be used or procured for the project in order to identify the appropriate furniture supplier the systems and components for the project
e. Identification of preliminary electrical, telephone, data, and voice video layout/locations.
f. Heritage Furniture and Art and Artifacts: Validate and update the Art & Artifact location plan including all required design elements, and the heritage furniture list and room locations.

2.3.3.16 Signage

Preleminary signage design of wayfinding, special purpose rooms, and office. Signage to be coordinated with interior design.

2.3.3. 17 Time, Cost and Risk Analysis: (To be included at 50 %, 99 % and 100 % submissions)

The Consultant shall provide, at a minimum:

a. Description of contract packaging and implementation plan,
b. Preliminary construction schedule including long-term delivery items,
c. Updated detailed, critical path and milestone schedules,
d. Class 'B'/Substantive Estimate,

e. Data requirements to support submissions to Treasury Board.
f. Update risk Assessment,

2.4 Design Development Submissions (50%, 99% and 100% submissions):
The Consultant shall deliver drawings, reports and presentations for the Design Development stage, as outlined in PA 1.12 Submissions, Review, and Approval Process. Preparation of the BCC Componets SoW's will be a highly iterative process and may required additional submissions.

It is expected that PWGSC and the Client/Users will provide feedback to progressively refine the Design Development submission. Deliverables in this stage shall be progressively more detailed with each submission issued such that all deliverables are provided at the 100% submission.

2.5 Rebuttal to PWGSC Quality Assurance Report and Client/User and Construction Management Reviews:
Aspects to be included, at a minimum, are:

a. Review and analysis of comments provided by the Project Team, including the COE technical resource, the Client/User and the Construction Manager, and
b. Prepare and submit a written response to all comments provided by the above.

2.6 Lessons Learned:
Prepare a Lessons Learned spreadsheet which shall be progressively updated. One meeting after 99% Design Development submission shall be held. Database will include:

a. List current phase of project
b. General subject heading
c. Description of issue
d. Brief summary of lessons learned

RS 3 CONSTRUCTION DOCUMENTS

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

3.1 Intent

Refer to the implementation strategy outlined in the Description of Project Section 2.5.

The objective of this stage is to further develop the documents to prepare coordinated drawings and specifications setting forth, in detail, the requirements for the tender, construction and final cost estimate of the project.

The construction documents shall be issued by the CM for tendering the work to construction sub-trades. Priority shall be given to those packages related to early construction activities, and to specialized packages which involve pre-qualification of construction trades.

3.2 General

Activities are similar to all construction documents submissions. The degree of completeness for deliverables should reflect the advancement progress of each of the submissions listed below. Although each construction documents set will be released in sequence, the Consultant must ensure congruency between each of the packages:

It is expected to make the following submissions for each construction documents set, for quality assurance reviews by PWGSC: 66 % submission, 99 % submission and pre-tender submission.

Prepare drawings and specifications setting forth in detail the requirements for the construction and final cost estimate for each construction document set for the project.

- Updated detailed Division One specification with all implementation constraints included,
- 66% indicates substantial technical development of the project - well advanced architectural and engineering plans, elevations, sections, details, schedules and specifications, possible submission to local authorities for pre-permit review; Include updated cost estimate,
- 99% is the submission of complete Construction Documents ready for tender call and submission to local authorities for permit purposes; Include updated cost estimate,
- For commissioning, the Systems Operations Manual (SOM) is 90% complete and the maintenance management information is included within the Construction Documents at 99% Construction Document phase; and
- Pre-tender submission is the complete construction documents sets, ready for

tender call by the CM. In consultation with the CM, prepare a final Class A estimate for each tender set.

At each review, prepare an up-to-date estimate demonstrating compliance with the Construction Plan. Non-compliance will require revisions to the contract documents,

Provide input to the construction schedule in coordination with the CM.

Prepare in consultation with relevant authorities: final code analysis and statement, final fire separations and life safety plans and sign and seal one set of 100 % complete construction documents for building permit application

Services provided must be in accordance with the requirements identified in *Doing Business with NCA***.** Prepare Construction Documents in accordance with the specification brief.

3.3 Activities

3.3.1 General

a. Obtain written approval from PWGSC DR to proceed to Construction Document Stage;
b. Confirm format of drawings and specifications in accordance with PWGSC standards.
c. Participate in partnering/team building design workshops and value engineering sessions.
d. Attend weekly meetings, record and distribute meeting minutes.
e. Develop, in collaboration with the Construction Manager, tender sets prioritization sequence to support phased construction.
f. Ensure coordination and integration of all submissions between all disciplines prior to submission and submit letter confirming the co-ordination procedure used and testify that a detailed co-ordination of documents has been completed.
g. Support an integrated design process.
h. Update quality management process for the professional interdisciplinary team.
i. Provide written response to all review comments, and incorporate these into Construction Documents where required.
j. Submit and obtain approval on plans and specifications required by Authorities Having Jurisdiction before tender call.
k. Submit updated construction cost estimates and schedules with each submission. Explain variances with respect to previous versions.

3.3.2 Technical and Production Meetings

a. Attend Technical and Production Meetings, prepare and issue meeting minutes.
b. Construction Document submissions shall be presented by the Consultant at Technical and Production Workshops for review and discussion with the PWGSC Project Team.

c. Representatives from Client/Users and PWGSC Operations staff will be present as arranged by the Departmental Representative.
d. Consultant must ensure that members of its specialist sub-consultant disciplines attend technical and project meetings as required or relevant to the agenda.
e. The Consultant shall arrange for all necessary data, progress prints, etc., as well as a meeting agenda, to be available to all attendees a minimum of two working days prior to the workshops.
f. Consultant shall prepare minutes of the meetings and distribute copies to all participants.

3.3.3 Conservtion:
In collaboration with all relevant disciplines,

a. Apply the conservation approach to specific spaces and elements
b. Illustrate/detail the repair, refinishing, or replacement of components and materials as required addressing architectural and structural conservation objectives.
c. Review and approve materials and construction processes specification to meet heritage requirements.

3.3.4 Regulatory:
In collaboration and coordination with all relevant disciplines prepare:

a. Final building code data summary for NBC and OBC, including table of equivalents;
b. Final fire separations, life safety and accessibility plans, smoke control;
c. HRSDC review report; and
d. Regulatory section for Construction Document Report.

3.3.5 Functional Program:
Coordinate with the relevant disciplines (architecture, interior design, civil/structural, mechanical/electrical engineering etc.), for the options described in the Building Design Development Report. Update and finalize detailed diagrams illustrating the following:

a. Update Functional Program;
b. Spatial relationship diagrams; and
c. Area calculations and analyses.

3.3.6 Site Design:
Coordinate with all relevant disciplines, architecture, heritage, civil/structural, mechanical/electrical engineering, geotechnical etc., prepare complete discipline specific site plans including:

a. Subsurface features,
b. Municipal infrastructure, subsurface and above grade services, including capacities and limitations, i.e. storm water drainage, fire protection, telecommunications, domestic water, power, etc. Include both building services and flow through services,
c. All Landscaping/urban design

d. Environmental features including sustainable design strategies (i.e. storm water management, landscaping, etc.),

3.3.7 Building Design:

Coordinate the relevant disciplines to prepare complete discipline specific plans, elevations, sections, details and schedules to describe the project for tender and permit processes Development of the project must include, but not limited to the following:

a. Shell including superstructure, exterior enclosure, roofing, window replacement and all the envelope components;
b. Structural interventions: Drawings for construction are to indicate all structural interventions and design loads,;
c. Interior including interior construction, stairs and interior finishes;
d. Final door and hardware schedules;
e. Final partition locations including wall schedule;
f. Heritage protection & demolition. (Incorporate abatement drawings produced by PWGSC Environmental Consultant).
g. Temporary utilities and fire protection.
h. Provide temporary structures, partitions, protection, mechanical and electrical building systems, construction constraints and sequencing to separate early construction areas, from those still under construction;
i. Final heritage salvage inventory list
j. Services including elevators, escalators, plumbing, HVAC, fire protection, electrical, telecommunications, building automation, etc.;
k. Flow diagrams, system layouts, equipment selections and sizes, floor plan layouts showing major equipment;
l. All major ductwork sized and shown on drawings including layout of all major mechanical, electrical and telecommunication rooms;
m. EMCS network architecture, mechanical control schematics, sequence of operation for each mechanical system, electrical control schematics, DDC input / output point schedules;
n. Update the building load calculation, energy analysis and energy budget at 66% and 99%;
o. Submit at 99% submission all calculations for structural, civil, mechanical, electrical, acoustical, building science, etc. design and equipment selection. These calculations shall be bound (3-ring binder) and indexed. Calculations submitted will not necessarily be reviewed. They are required for record purposes and in certain instances to assist in the understanding and interpretation of designs;
p. Include information technology, multimedia and security pathways and service infrastructure at each stage;
q. Review and approve materials and construction processes specifications to meet sustainable development objectives and commissioning;
r. Commissioning including updates to SOM and part 3 of each relevant commissioning specification. Include commissioning plan, performance verification procedures for systems and integrated systems, complete with expected testing results, and maintenance management information for each piece

of base building equipment on all drawings;

s. Demolition plans for the demolition work, including for repairs to affected character-defining materials and assemblies, temporary removals and salvaging. Coordinate with Environmental and Geotechnical consultant;
t. Optimize sustainable design opportunities, strategies;
u. Update facility utility budgets at 66% and 99% submission; and

The specifications shall be project specific and including sustainable procurement strategies.

3.3.8 BCC Components:

Furniture/Equipment will form part of separate tender sets to be prepared by the Consultant and tendered by a separate PWGSC contract authority (not by the CM). Prepare finalized furniture layout plans, and specifications (SoWs) at the, 33%, 66%, 99% and final submissions for all furniture/equipment tender packages.

The Consultant shall prepare final furniture plans and furniture information that include but are not limited to the following:

a. Final layout of all furnishings pertaining to Parliamentary Office Units, heritage, case goods, open and enclosed workstations / work settings, support space and special purpose space including the Multipurpose Rooms;
b. Final location and identification of all equipment;
c. Final component matrix (using CADD and Excel)- equipment and parts counts, fittings, and all accessories;
d. Based on approved material and colour scheme presented in Design Development Stage, prepare a Final material and colour presentation board for all furniture requirements;
e. Confirmation of electrical, telephone, data, and voice video layout;
f. Prepare a report with written and graphic identification of all furniture finishes, including samples and specifications for all panels, work surfaces, seating, filing, window coverings and accessories and all free-standing furniture;
g. Coordination, based on the final equipment and furniture layout plans, with architectural, mechanical and electrical sub-consultants:
h. Mechanical and electrical space and location requirements on the final equipment and furniture plans as well as to ensure the mechanical and electrical drawings accurately reflect the furniture and equipment layout, including but not limited to the following:
    i. Preliminary lighting layout;
    ii. Preliminary location of light switches;
    iii. Preliminary location of thermostats;
    iv. Plumbing location and space requirements, and
    v. Additional cooling / exhaust location requirements.
i. Coordinate with Electrical / Telecommunications sub-consultant:
    i. Identify the location and number of telephone, data and video outlets according to It standards provided by Senate. Telecommunications

plans are to clearly indicate name and locations of all occupants of the space; and

ii. Provide elevation views of all special purpose areas to reflect locations of electrical end devices including plugs, controls and switches based on final equipment and furniture layout plans.

j. Art & Artifact location plan and details, and validate and produce the final heritage furniture list, room locations and signage.

<u>*Heritage Furniture and Art and Artifacts:*</u>

- Final location plans, details, drawings etc.
- Specification for crating and moving of the heritage furniture and Art & Artifacts

<u>*Signage:*</u>

- Final drawings and specifications

3.3.9 BCC Connectivity

Consultant to coordinate and integrate with BCC Connectivity Specialist Consultant

3.3.10 Security

<u>Security Detailed Design:</u> In support of the construction tender documents, the Consultant will develop the functional specifications for every security device that will be integrated as part of the security infrastructure. This work will include, but not be limited to, locating the device on the tender documents, describing the expected functionality of the device and the relationships and functionality between security devices and associated equipment such as door operators and life safety systems. This document will serve to develop the cabling and conduit infrastructure through a partnership between ITPMO and the Senate Accommodation Group.

<u>Non-ISS Specification Document:</u> Prepare all specifications related to security posts, including a visual representation of how the post is organized, a layout of the equipment and their dimensional requirements, as well as all other stand-alone (i.e. non-IT connected) equipment such as scanning equipment and all other security equipment not connected to the security system. This document is intended to initiate the procurement of the specified equipment.

<u>Detailed Design for Non-ISS Specification Document</u>

Presentation to stakeholders

Create and make a presentation of the proposed security design and functionality. The objective is to provide a complete understanding of the security posture. Assume a minimum of 3 half day presentation for this activity.

a) 66% Security Design Submissions:

The Consultant will participate in the preparation and iterative review of the detailed design and provide its expert advice with respect to changes to the design being

requested, identify impacts to the security design and amend the security detailed design upon approval.

b) 99% Security Design Submissions:

The Consultant will participate in the preparation and iterative review of the detailed design and provide its expert advice with respect to changes to the design being requested, identify impacts to the security design and amend the detailed security design upon approval.

c) 100% Detailed Design Submission:

The Consultant will prepare a document that captures the final detailed security design and provides the final specifications and functionality. All impacts identified in previous reviews by the stakeholders are to be documented and signed off by PWGSC prior to the Implementation Stage.

3.3.11 Commissioning:
Coordinate with all relevant disciplines, architecture, heritage, civil/structural, mechanical/electrical engineering, etc. Refer to RS6 Commissioning the Facility.

3.3.12 Time, Cost and Risk Analysis:
In collaboration with the entire Project Team, prepare updated Construction Cost Plan, schedules and outline risk implications and mitigation strategies:

Submit updated cost estimates and updated Construction Cost Plan with each Construction Document submission, for each tender package;

a. Prepare a final Class 'A' estimate for each tender package, in pure elemental and in trade format, for each tender package. Reconcile each tender package estimate with that prepared by PWGSC's Cost Management Consultant. Resolve all outstanding cost issues. Reissue the revise/updated estimate to the PWGSC DR in both elemental and trade formats;
b. Update the following elements of the Planning Report including:
    - Update detailed implementation plan including BCC elements and move/ occupancy plans;
    - Update detailed WBS and the WBS Dictionary;
    - Update detailed, critical path and milestone project schedules; and
    - Update Project Activity Listing.

Update risk implications and mitigation strategies;
Establish quality control process to be implemented through sample mock-ups or model areas as part of Construction and Contract Administration stage; and
Prepare Time, Cost and Risk Analysis section of the Construction Documents Report.

3.4 Deliverables

Interim Submission (66%, 99%):

Deliverables are similar at both the 66% 99% stages, therefore only those from the final submission stage are shown. Completeness of the project development must reflect the stage of a submission.

a. Complete set of fully coordinated specifications and working drawings.
b. Commissioning Plan and Systems Operations Manual. Refer to RS6 Commissioning the Facility for more details.
c. One copy of the complete colour schedules, including textures, sheens, super-graphics, colour chips and material samples.
d. One copy of support data, studies, calculations, etc., required by PWGSC disciplines for final checking and record.
e. One copy of updated Cost Plan and Project Schedule.
f. One copy of updated construction risk assessment.
g. Drawings should clearly distinguish existing elements to be removed, and new or added elements.
h. Given the breakdown in packages, an overarching plan for protection is required at all times, to ensure repairs to affected character-defining elements are incorporated in related packages.

Final Submission (100%):

a. This submission incorporates all revisions required by the review of the 99% submission. Provide the following:
   - Complete set of originals of the working drawings professionally stamped, signed, and sealed.
   - Complete sets of original specifications.
   - Class "A" estimate. The Class "A" cost estimate shall be submitted in elemental and trade cost breakdown format. Cost estimates shall have summary plus full back-up showing items of work, quantities, unit prices, and amounts.
   - Complete Commissioning Plan.
   - Complete Systems Operations manual.
   - Complete set of original Colour Schedule.
   - Waste management audit and work plan.
b. As a safeguard against loss or damage to the originals, retain a complete set of drawings in reproducible form and one copy of specification.
c. Electronic true copy of the final submission drawings and specifications on one or multiple CD-ROM in accordance with section PA 1.5 - General Project Deliverables.
d. Electronic version of addenda, where needed.

Inspection Authorities Submission

- Submit and obtain approval on plans and specifications required by Inspection Authorities before proceeding with the activities described in section RS 4 - Tender Call, Bid Evaluation, and Construction Contract Award.

3.5 Lessons Learned

Attend one (1) Lessons Learned meeting.

RS 4 TENDER CALL, BID EVALUATION & CONSTRUCTION CONTRACT AWARD

4.1 Intent

The object of this stage is to solicit and evaluate bids from qualified construction trade contractors / equipment suppliers, and to award the contracts according to the requirements as outlined in the CM's contract.

4.2 Scope and Activities

4.2.1 Construction Tendering

It is anticipated that multiple construction packages shall be tendered by the Construction Manager, based on project sequencing requirements, to select the various construction sub-trades.

The Consultant is required to provide support and advice to the Departmental Representative during construction tender stage activities managed by the Construction Manager. While the Construction Manager will be responsible for evaluating bids for each construction tender package, the Consultant may be asked to review and advise on some procurement issues.

The Consultant is required to participate in pre-qualification activities as may be required, including preparing criteria for specialized trade contractors.

For each construction tender issue, the Consultant shall:

a. Attend tender briefing meeting(s) arranged by the CM.
b. During tendering of each package, provide the Departmental Representative with written information and clarifications in response to questions from construction bidders, and as required for bidders to fully interpret the Construction Documents.
c. Prepare tender addenda as required, either based on questions arising from bidders briefing meetings, for issue to all bidders by the Construction Manager following review and approval by the Departmental Representative.
d. Assist the Departmental Representative in evaluating pre-qualification submissions from specialized construction sub-trades.
e. Examine and report on any project impacts which may arise due to the issue of tender addenda with respect to construction cost estimates, risk allowances, and to construction schedule.
f. Incorporate all addenda for each tender issuance into a consolidated construction document labeled "Issued for construction".

4.2.2 Procurement of BBC Components

For all other procurement packages not managed by the Construction Manager (*e.g.* BCC components and furniture/equipment related packages), the Consultant shall:

a. Participate at bidder briefing meeting(s). The Departmental Representative is to advise on the timing of the Bidders Briefing Meetings on site.
b. During procurement of each package, provide the Departmental Representative with written information and clarifications in response to questions from bidders, and as required for bidders to fully interpret the solicitation documents and associated the Statement of Work.
c. Prepare solicitation addenda as required, either based on questions arising from bidders briefing meetings, or based on requests for clarification, or to reflect changes derived from the Client/User detailed technology design BCC connectivity, in both official languages.
d. Assist in bid evaluation by providing advice on the following:
    i. The completeness of bid documents in all respects.
    ii. The technical aspects of the bids.
    iii. The effect of alternatives and qualifications which may have been included in the bids.
    iv. The bidders' capability to undertake the full scope of work.
    v. The availability of adequate equipment to carry out the work.
e. Examine and report on any project impacts which may arise due to the issue of solicitation addenda with respect to project cost estimates, risk allowances, and schedule.

Component Tender Packages Groupings are as follows, but not limited to:

- Furniture equipped with Multimedia
- Demountable/ Moveable / Stackable Furniture and Fittings
- Office Furniture and Fittings,
- Kitchen/cafeteria components
- Maintenance Equipment

There will be multiple tender packages within each of these groupings

4.3 Deliverables

For each tender/procurement package, the Consultant shall provide:

a. Originals of drawings and specifications, or Statements of Work, as well as electronic copies of drawings and specifications signed and stamped with professional seal.
b. Addenda as required.
c. Changes to the tender documents, if re-tendering is necessary.
d. Minutes of the "bidders briefing meeting".
e. Summary of information required by Bidders to fully interpret the tender documents.

f. Summary of addenda based on questions arising out of the Bidders Briefing Meeting and requests for clarification.
g. Summary of cost and schedule impact created by issue of tender documents and addenda.
h. Updated construction cost plan in both elemental and trade format.
i. Updated detailed, critical path and milestone project schedules.
j. Revised Construction Documents to bring the cost within the stipulated limits and/or for re-tendering purposes.
k. Report upon risk implications and mitigation strategies.
l. “Issued for construction” construction documents for each tender issuance.

RS 5 CONSTRUCTION AND CONTRACT ADMINISTRATION

The object of this stage is to implement the project in accordance with the Contract Documents and to direct and monitor all necessary or requested changes to the scope of work during construction, commissioning and closeout. The Consultant shall work in the spirit of information sharing with PWGSC. All material specifications, mixes and test results shall be turned over to PWGSC for future maintenance purposes. The following services are required for each construction phase, and for each tender package.

5.1 Scope and Activities

5.1.1 Partnering -Team Building Session

The Consultant shall obtain the timing of partnering/team building session from the Departmental Representative.

The Consultant scope and activities shall be in collaboration with its relevant specialized sub-consultant disciplines and shall, as a minimum, include the following:

5.1.2 General

a. Coordinate all services of specialists and sub-consultants disciplines as applicable, and advise and consult with the Departmental Representative.
b. Prepare a communications protocol in consultation with the Departmental Representative. Issue to Project Team.
c. Update detailed, critical path and milestone project schedules.
d. Update sustainability documentation to reflect changes which occur during construction.

5.1.3 Site Visits

a. The architect of record and sub consultants and specialists disciplines as applicable shall conduct weekly construction inspection services. Ensure compliance with contract documents.
b. Establish a written understanding with contractors as to what stages or aspect of the work are to be inspected prior to being covered up.
c. Assess quality of work and identify in writing to the Construction Manager and to the Department all defects and deficiencies observed at time of such inspections.
d. Inspect materials and prefabricated assemblies and components at their source or assembly plant, as necessary for the progress of the project.
e. Any directions, clarifications or deficiency list shall be issued in writing to PWGSC.

5.1.4 Construction Meetings

a. Immediately after award of each construction package, arrange and participate in a construction briefing meeting with the successful construction sub-trade, the Construction Manager, and the Departmental Representative. Ensure participation from all pertinent specialist sub-consultant disciplines.

b. The CM will prepare minutes of construction briefing meetings and distribute copies to all participants and to other persons agreed upon with the Departmental Representative.
c. Participate in weekly construction progress meetings, commencing with the construction briefing meeting. The meetings will be chaired by the Construction Manager, and will typically include the main sub-contractors, the Consultant and its specialist sub-consultant disciplines, the Departmental Representative, and various other PWGSC representatives. The Departmental Representative may invite Client/Users and other project Stakeholders to attend any of these meetings as necessary. Minutes of these meetings will be prepared and distributed by the Construction Manager.

5.1.5 On-Site Interference Meetings

The Consultant, including the lead Architect, lead mechanical designer, lead electrical designer and other sub-consultants as and when required, shall participate in twice weekly on-site meetings with the CM and key sub-trades, at or near the commencement of construction, to resolve construction interference problems. The HoC ITPMO shall also attend these meetings to ensure IT/MM/ISS related interference problems are incorporated as part of a coordinated and integrated on-site construction solution. The Consultant team shall issue Site Instructions and, if required Contemplated Change Notices, to the CM to immediately resolve interference issues and facilitate the construction process.

Interference meeting may last 6 months. Assume sixty (60) on-site meetings for each named discipline, above and beyond normal weekly site visits for inspection and reporting upon construction progress

5.1.6 Project Schedule

a. Monitor the Construction Manager's construction schedule, take necessary steps to ensure the schedule is maintained, and submit a detailed report to the Departmental Representative concerning activities that are at risk of being delayed. Submit correspondence to the Departmental Representative demonstrating that a detailed review of the schedule has been completed.
b. Keep accurate records of causes of construction delays on site, as well as the actual amount of construction personnel and equipment down time resulting from delays, and submit to Departmental Representative as they occur.
c. Make every effort to assist the Construction Manager in avoiding delays.
d. Ensure the Construction Manager's detailed Commissioning Schedule is updated before the start of the Commissioning Phase of the project. Routinely monitor and assist in updating this schedule throughout the commissioning of the work.

5.1.7 Contract Documents

a. Carry out the review of the work at intervals appropriate to determine if the work is in conformity with the Contract Documents. Submit deficiency reports on a bi-weekly basis.
b. Interpret the requirements of the Contract Documents and make findings as to the performance by the sub-contractors.
c. Meet with the Construction Manager and construction sub-trades as required to clarify potential ambiguities in the Construction Documents. RFI's identified as critical to the project schedule shall be responded to promptly and with priority.
d. Render interpretation in writing and graphic form as may be required with reasonable promptness on the written request of either the Departmental Representative, or the Construction Manager. A maximum of five (5) working days will be tolerated for Consultant response to Construction Manager Request for Information.
e. Render written findings within a reasonable time on all claims, disputes and other matters in question between PWGSC and the Construction Manager relating to the execution or performance of the work or the interpretation of the Contract Documents.
f. Render interpretation and findings consistent with the intent of and reasonably inferable from the Contract Documents
Provide two (2) updates to each construction document issuance "Issued for construction (plans and specifications)" incorporate all change orders in outline. Timing of each update shall be determined in coordination with DR and CM.

5.1.8 Inspection

a. Reject work which does not conform to the Contract Documents and whenever in the Consultant's opinion, it is necessary or advisable for the implementation of the intent of the Contract Documents, require special inspection or testing of work, whether or not such work has been fabricated installed or completed.
b. Order minor adjustments in the construction work which are consistent with the intent of the Contract Documents, when these do not involve an adjustment in the construction contract prices and or an extension of the construction contract durations.

5.1.9 Supplemental Instructions

a. Furnish supplemental instructions to the sub-contractors with reasonable promptness or in accordance with a schedule for such instructions agreed to by the Departmental Representative and the Construction Manager.
b. Keep the Departmental Representative 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.
c. Determine the amounts owing to the Construction Manager based on the progress of the work and certify payments to the Construction Manager.

5.1.10 Change Control

a. The Consultant does not have authority to change the work or the price of any Contract(s).
b. Changes which affect cost or design concept must be approved by the Departmental Representative.
c. Upon the Departmental Representative's approval, obtain quotations from the Construction Manager in detail. Review prices and promptly forward recommendations to the Departmental Representative.
d. All changes, including those not affecting the cost of the project, must be covered by Change Orders.
e. Utilize an existing PWGSC change control process and software for scope change, site condition change, client driven change and design driven change. Identify and track type of change as one of: Site Condition, Client requested, Design Condition on each submitted CCN. Departmental Representative may disagree with the chosen type of change and has the option to advise that a change may be a different type than that chosen by the Consultant.
f. Advise the Departmental Representative of all potential changes to scope for the duration of the implementation.
g. Provide project delay analysis where appropriate.
h. Utilizing the established change control process and software, prepare Contemplated Change Notices (CCN) and Change Orders (CO), verify quantities, and provide justification for approval and signature by the Departmental Representative in accordance with the Contract Documents. An estimate for each submitted CCN shall be provided by the Consultant
i. Review the Contractor's submittals within five (5) working days; prioritize review and processing to ensure the project schedule is maintained.
j. Provide cost planning and estimating advice during construction.
k. Assess/analyze time impact of all proposed changes, advise the Departmental Representative of impact analysis.
l. Indicate any changes or material/equipment substitutions on Record Documents.
m. When CCN is to be issued based on unit prices, keep accurate account of the work, recording dimensions and quantities.

5.1.11 Commissioning

a. Prepare performance testing requirements for each system/integrate system and indicate expected results for each system and integrated system test
b. Ensure compliance with Commissioning Plan for each phase of occupancy/completion, update plan as necessary.
c. Ensure continued review and witnessing of all activities related to the commissioning process.
d. Participate in the processes for systems and integrated systems (life safety compliance) testing, at each stage of occupancy.

e. Ensure the requirements of section RS 6 - Commissioning the Facility are delivered.

5.1.12 Project Close Out - for each phase of implementation

a. Prepare Certificates of Substantial Performance and Certificates of Completion.
b. Collect the written warranties and related documents from the Construction Manager and forward to Departmental Representative for review.
c. During the twelve (12) month warranty period, investigate all defects and alleged defects and issue instructions to the Construction Manager. Participate in two (2) formal building walkthroughs and provide reports for each visit.
d. Update training plan and complete commissioning processes.
e. Prepare and provide to the Departmental Representative and to the PWGSC Commissioning Manager Systems all Operating Instructions (name plate instructions).
f. Finalize Systems Operations Manual and Client/User O&M Manual to 100% status, reflecting as-commissioned operation of all building systems.
g. Conduct a final warranty review with all applicable Consultant members, PWGSC representatives and sub-contractors. Issue instructions to the sub-contractors as may be required. Follow up as required. Complete a narrative report and submit to the Departmental Representative.

5.1.13 Shop Drawings

a. Review and take other appropriate action with reasonable promptness upon such sub-contractor submittals as shop drawings, product data, and samples, for conformance with the general design concept of the work as provided in the Contract Documents. Prioritize reviews of submission to expedite construction.
b. Verify that shop drawings include the project number and are recorded in sequence.
c. Establish and implement a shop drawing handling/distribution protocol acceptable to the Project Team. Verify the number of copies of shop drawings required. Consider additional copies for Client/Users review.
d. Shop drawings shall be stamped: “Checked and Certified Correct for Construction” by the sub-contractors and stamped: “reviewed” by the Consultant before return to the sub-contractors.
e. Process Shop Drawings, within five (5) working days.
f. All equipment must be CSA approved, or CSA equivalent. In the case of equivalency, provide letters of approval for use in Canada.

5.1.14 Inspection and Testing

a. Provide the Departmental Representative with specified and recommended list of tests to be undertaken, including on site and factory testing.
b. Ensure all testing is detailed within the Commissioning Plan.

c. Once contract is awarded, assist Departmental Representative in briefing testing firm on required services, distribution of reports, communication lines, etc.
d. Participate on-site at all testing. Certify results in accordance with design and operational intent. Review all test reports and take necessary action with the Construction Manager when work fails to comply with contract.
e. Immediately notify the Departmental Representative when tests fail to meet project requirements and when corrective work will affect schedule.
f. Assist the Departmental Representative in evaluating testing firm's invoices for services performed.

5.1.15 Construction Manager's Progress Claims

a. Each month the Construction Manager submits a progress claim (request for progress payment) for work and materials as per the requirements of the Construction Documents. Review progress claim request in detail. Submit to Construction Manager, copying Departmental Representative, all concerns with the claimed levels of completion. Discuss with CM and come to agreement on any items of disagreement.
b. Verify at each progress payment that sub-contractors have accurately recorded information on the site as-built set of Contract Documents.
c. With respect to communications and security cabling, the Client/User will act as Technical Authority and will inspect and certify payments.
d. The claims are made by completing the following forms where applicable:
   - Request for Progress Payment.
   - Cost Breakdown
   - Statutory Declaration Progress Claim.
e. Review and sign designated forms and promptly forward claims to the Departmental Representative for processing.
f. Submit with each progress claim:
   - Updated schedule of the progress of the work.
   - Detailed photographs of the progress of the work.

5.1.16 Materials On Site

a. The Construction Manager and its sub-contractors may claim for payment of material on site but not yet incorporated in work.
b. Material must be stored in a secure place designated by the Departmental Representative.
c. The Consultant shall check and verify a detailed list of materials with supplier's invoice showing price of each item which must accompany claim.
d. Items shall be listed separately on progress payment forms after the break-down list and total.
e. As material is incorporated in the work, the cost of this material must be added to the appropriate breakdown list and removed from the material list.

5.1.17 Acceptance Board

a. Inform the Departmental Representative and the PWGSC Commissioning Manager once satisfied that the project is substantially completed. The Consultant, Construction Manager, and major sub-trades representatives shall form part of the Project Acceptance Board and attend all meetings as organized by the Departmental Representative.

5.1.18 Interim Inspection

a. The Acceptance Board shall inspect the work and list all unacceptable and incomplete work on a designated form. The Board shall accept work from the sub-contractors subject to the deficiencies and uncompleted work listed and priced.
b. The sub-contractors shall provide a work plan of actions and schedule to correct all deficiencies.
c. The Consultant shall coordinate with the Departmental Representative to monitor, inspect and report on the progress of deficiencies corrections.

5.1.19 Substantial Completion

a. The Departmental Representative will formally issue the official Certificate of Substantial Performance forms (formerly called Interim Certificate of Completion) to the Construction Manager.
b. It is anticipated that multiple "Partial" Certificates of Substantial Performance will be issued to reflect the phased project implementation approach.
c. Prior to the issuance of each Certificate of Substantial Performance, obtain as-built marked-up drawings from the Construction Team. Provide a copy to the Departmental Representative.
d. Payment requires completion and signing, by the parties concerned, of the following documents:
   - Certificate of Substantial Performance – PWGSC form 1796.
   - Statutory Declaration – PWGSC form 2835.
   - Other submittals required to support the progress claim are:
     - Workman's Compensation Clearance Certificate.
     - Contractor's Invoice.
     - Cost Breakdown
     - Certificates or written approval from AHJs such as HRSDC, City of Ottawa, Electrical Safety Authority, TSSA, etc.
e. Verify that all items are correctly stated and ensure that completed documents and any supporting documents are furnished to the Departmental Representative for processing.

5.1.20 Building Occupation

a. PWGSC or the Client/Users may occupy the building after the date of acceptance of the building by the Acceptance Board. The acceptance date is normally that of the Certificate of Substantial Performance issued to the sub-contractors. As of the acceptance date, the sub-contractors may cancel the

Contract Insurance, and PWGSC or the Client/Users (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).

5.1.21 Take-over

a. The official take-over of the project or parts of the project, from the Construction Manager is established by the PWGSC Project Team and the Client/Users. The date of the Certificate of Substantial Performance signifies commencement of the twelve-month warranty period for work completed on the date of each certificate in accordance with the General Conditions of the Contract.
b. Provide to the Departmental Representative and to the PWGSC Commissioning Manager with original copy of sub-contractor 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.

5.1.22 Furniture/Equipment Delivery and Installation

a. Delivery and installation of Furniture/Equipment is to be coordinated by Consultant in consultation with and suppliers. Final delivery dates to be confirmed with the Departmental Representative.
b. Representatives of the Consultant are required to be on-site during the delivery of Furniture/Equipment identified for each area of the project to confirm delivery of appropriate product.
c. Consultant to confirm that all quantities of all Furniture/Equipment furnishings and components have been delivered. Consultant to prepare deficiency list of all damaged or missing items.
d. Consultant to oversee installation/set-up of Furniture/Equipment by supplier.
e. Consultant to provide deficiency list to the Departmental Representative for each floor or area of Furniture/Equipment completed.

5.1.23 Operation and Maintenance Data Manual

a. Operation and Maintenance Data Manual: Four (4) sets of each volume produced by sub-contractors in accordance with the project specification and verified for completeness, relevance and format by the Consultant and submitted to Departmental Representative and PWGSC Commissioning Manager prior to interim acceptance or actual start of operation and instruction period, whichever occurs sooner.
b. Prior to submission to the PWGSC Commissioning Manager, provide written comment in detail indicating the acceptability of all manuals. The sub-

contractors shall retain one (1) copy of each volume for his record and use during the instruction period.

5.1.24 Training

a. Ensure all training is detailed within the Commissioning Plan,
b. Provide training sessions on design and operational intent, including but not limited to HVAC, electrical systems and end users. Make arrangements and ensure that PWGSC Operations and Client/Users operating personnel are properly instructed on the operation of all services and systems using the final manuals as reference.
c. Consultant to provide training sessions on the subject of design intent and systems operations. Utilize Systems Operations Manuals for training sessions.
d. Participate and document content at every training session.

5.1.25 Keys

a. Ensure that all keys and safe combinations are delivered to the Departmental Representative.

5.1.26 Final Inspection

a. Inform the Departmental Representative when satisfied that all work under the contract has been completed, including the deficiency items at all agreed completion points.
b. PWGSC reconvenes the Acceptance Board which makes a final inspection of the project. If everything is satisfactory the Board issues interim and final acceptance of the project to the sub-contractors.

5.1.27 Final Completion

The official take-over of the project is established by the official Certificate of Completion forms (formerly called Final Certificate of Completion). The Departmental Representative will formally issue these forms to the Construction Manager.

a. The final payment requires completion and signing, by the parties concerned, of the following documents:

- Certificate of Completion (Final) – PWGSC form 1797.
- Statutory Declaration - PWGSC form 2835.
- Submission of all project submittals including but not limited to reports, O&M manuals, as-built drawings
- Other submittals required to support the progress claim are:
    - i. Contractor’s Invoice
    - ii. Cost Breakdown
    - iii. Workmen's Compensation Clearance Certificate
    - iv. ESA Certificate
    - v. TSSA Certificates

vi. Hydro Certificate(s).
vii. Any other applicable certificates (i.e. Building Permits, Occupancy Permits, Notice of Project Closure, etc.)

b. Verify that all items are correctly stated and ensure that completed documents and any supporting documents are furnished to the Departmental Representative for processing.

5.1.28 As-Built and Record Drawings and As-Built Specifications

As the project will have multiple tender sets under the CM model for each tender package:

a. Check and verify sub-contractor as-built records for completeness and accuracy.
b. Obtain from the sub-contractors all modification/updates to as-built records from Substantial Completion to Final Completion.
c. Show deviations in construction from the original Contract Documents including changes resulting from Change Orders or from Site Instructions.
d. Indicate MMS numbers for each piece of mechanical and electrical equipment on each drawing.
e. Produce Record Drawings and specifications, incorporating final as-built information into project drawings.
f. Provide a complete set of final shop drawings in hard copy and electronic format.
g. Submit a comprehensive consolidated final package of Record Drawings and As-Built Specifications within twelve (12) weeks of issuance of the Certificate of Completion.

5.2 Deliverables

The Consultant shall prepare and consolidate the following information:

a. Written reports from site visits including persons involved.
b. Monthly written reports on the progress of the work and cost of construction, including updated as-built records.
c. Provide cost and scheduling reports with updates at the end of each month.
d. Provide additional detail drawings when required to clarify, interpret or supplement the Construction Documents.
e. Written Site Instructions.
f. Copies of reviewed shop drawings and of reviewed drawings from furniture/equipment suppliers.
g. Update the “Issued for construction plans and specifications.
h. Acoustical performance assessment report.
i. Certificates of Substantial Performance and Certificates of Completion including respective reviews and acceptances.
j. Final Area Measurement / Space Usage Report.
k. Debrief of Commissioning activities outlining the commissioning process, major activities, and lessons learned from this project.

l. Finalize the Systems Operation Manual and Client/Users O&M Manual to reflect as commissioned operation and maintenance of each building system.
m. Training summary.
n. List of Spare Parts.
o. Certified and dated PV results.
p. As-built drawings and as-built specifications based on the as-built marked-up drawings obtained from sub-contractors.
q. Other Management Manuals as required.
r. Green Globes documentation and certification.
s. Warranty deficiency list.
t. Final Warranty Review and Report.
u. Post-Construction Evaluation.

RS 6 COMMISSIONING THE FACILITY

As a member of the PWGSC team, the PWGSC 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's representatives will work closely with the PWGSC Commissioning Manager, with the Construction Manager, and with the various sub-contractors to implement commissioning activities and create useful, well integrated drawings, reports and manuals, in compliance with Contract Documents.

6.1 Scope and Activities

a. Review and provide complete documentation on the Operation and Maintenance (O&M) requirements for the new facility.
b. Prepare Systems Operations Manual (SOM) and Preventative Maintenance Support System (PMSS)/MMS documentation.
c. Advise on O&M requirements for the new facility, including staffing, service contracts, training requirements, spare parts and special equipment
d. Contents of O&M Manuals SOM and Client/Users O&M manual shall be in accordance with the PWGSC Project Commissioning Manual current edition.
e. Carry out various checks and tests to determine if the new facilities function in accordance with the contract documents.
f. Identify Construction Manager and sub-contractor commissioning, Performance Verification (PV) and testing responsibilities.
g. Plan the Performance Verification activities, develop the installation checklists and PV report forms, and prepare a detailed verification schedule. PV tests will be performed by the Construction Manager, witnessed and certified by Consultant. Maintain detailed development reports and review with the Construction Manager for special systems such as EMCS.
h. PV inspection forms will be completed for all components, sub-systems, and systems and a final PV report will be submitted to the PWGSC Commissioning Manager.

6.2 Details

6.2.1 Design Development

6.2.1.1 O&M (General)

a. Submit an O&M report showing how the design will meet O&M requirements including the following subjects:

b. 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.
c. Cleaning (janitor closets, receptacle for vacuum, equipment supply and storage).
d. Capacity of the facility to change in response to program changes over its life expectancy.
e. Spare equipment, extra material and redundancies needed to operate and maintain this facility over its life expectancy.
f. System selection based on life cycle cost analysis considering energy, maintenance and operational cost.
g. "Phased" construction program.
h. Assist the PWGSC 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.
i. Assessment of:
    - staffing & skill requirements to operate and maintain the facility.
    - the need for service contracts, *i.e.* elevators, water treatment, controls emergency generators, fire alarm, security, etc.

a. Input into the Building Management Plan information regarding operational management requirements.

6.2.1.2 O&M Manuals and Systems Operations Manual (SOM)

a. Complete design intent and prepare SOM. Submit at the end of the design development stage. Provide review comments and conditions for accepting preliminary O&M Manuals.

6.2.1.3 Commissioning Plan

a. Submit a preliminary commissioning plan for review and approval.

6.2.2 Construction Documents & Tendering

6.2.2.1 O&M (General)

a. In consultation with the PWGSC Commissioning Manager, continue the assessment which started during the design stage with respect to O&M concerns including staffing, redundancies, spare equipment and extra material, service contracts, preventative maintenance and equipment identification, O&M facilities, the O&M budget. Ensure all review comments provided by the PWGSC Commissioning Manager are addressed.
b. Incorporate design and performance intent in the Construction Documents and identify anticipated performance outputs in PV forms.
c. Identify Construction Manager and subcontractor commissioning, PV and testing responsibilities.

6.2.2.2 Systems Operations Manual

a. Provide all design and operational intent, sequence of operation, etc., for the SOM.
b. Provide emergency start-up/operations/shut-down procedures.
c. Provide Single Line Diagrams of all systems.
d. Provide PMSS/MMS inventory lists and Valve Schedules
e. Provide Service Contract lists
f. Provide Shop Drawing lists.

6.2.2.3 Commissioning Specification

a. Use PWGSC disciplinary master specification for commissioning as the basis for the project specifications for commissioning. Complete design information required in the PV report forms.
g. Specify detailed PV procedures and output, documents, scheduling and reporting requirements within each relevant specification subsection.
h. Identify and include in specification all tests to be conducted at manufacturer's plants, on site during construction, installation, commissioning on site and during the operation phase.
i. Develop training package for O&M personnel and include in specification as required.

6.2.2.4 "PMSS/MMS" Specification

a. Use PWGSC Master Specification for the identification of equipment and inventory in conjunction with the PMSS/MMS. Provide PMSS/MMS coding and system nomenclature on tender documents. Coordinate with existing building equipment inventories.

6.2.2.5 Submission Requirements

a. The commissioning plan is submitted at the end of the design phase and is updated and resubmitted at the end of each stage of the working documents. The Consultant and the PWGSC Commissioning Manager work together to update the Commissioning Plan.
b. The commissioning specifications are submitted at the end of the 66% working drawings stage and are updated and resubmitted at each subsequent stage of the working documents.
c. The SOM is submitted at the end of the 66% working drawings stage, and is updated and resubmitted during subsequent stages of the working documents.
d. Respond to all PWGSC comments in writing at each stage.

6.2.3 Construction / Installation

6.2.3.1 O&M (General)

a. 3 months before the project substantial completion, assemble, review and approve all commissioning documentation, including check lists, PV

report forms, PV procedures, instruments to be used, and instrument calibration, and incorporate relevant data from reviewed shop drawings and installed component data.

b. Assemble all certified tests results and incorporate into the O&M manuals which mean herein, Systems Operations Manual and Client/Users O&M Manual.
c. Review the selected test instruments which are to be calibrated less than 3 months prior to substantial completion.
d. In consultation with the various sub-contractors, select the commissioning test instruments.
e. The Consultant shall:
    i. review Construction Manager and sub-contractor compliance with the contract documents
    ii. witness and certify tests conducted before concealment and start up.
    iii. verify that each system is completed, safe to operate and ready for start-up.
    iv. ensure that all deficiencies are rectified and acknowledge that the installation of components and systems is ready for the commissioning phase.

6.2.3.2 Manuals

a. Revise the O&M manuals as construction progresses, ensuring that it reflects the installed systems.
b. Review for acceptance the sub-contractors' O&M Manuals.
c. After review and acceptance by the Consultant, submit all manuals O&M manuals to the PWGSC Commissioning Manager for review and comment. Manuals shall be in accordance with the PWGSC Commissioning Manual, current edition.

6.2.3.3 Training

a. Co-operate with the PWGSC Commissioning Manager in making necessary arrangements for site O&M staff familiarization. Prepare training material in accordance with this RFP and the approved Commissioning Plan.
b. Document all training sessions

6.2.4 Commissioning Phase

6.2.4.1 General

Submit a list of the technical staff required to conduct all performance and verification tests for approval by the PWGSC Commissioning Manager prior to beginning testing and verification.

Manuals

a. Review the 100% O&M Manuals and submit comments to the PWGSC Commissioning Manager. Manuals to be in accordance with all modifications to the project.

Spare Parts

j. Finalize the delivery of all the spare parts requirements through the project and assist the PWGSC Commissioning Manager in the definition of additional parts not listed in the Construction Documents.

Performance Verification (PV)

k. Witness that the components, sub-systems and systems are tested in accordance with the provisions of the Contract Documents and ensure all systems meet design intent. Include testing of BCC equipment that is interconnected to, and that impacts, the operation of the base building, and certify same, including testing during off-hours.

l. Witness that systems and integrated systems testing (life safety compliance testing) at partial occupancy and again at final occupancy and certify same, including testing during off-hours.

m. Report in writing to the Departmental Representative and to the PWGSC Commissioning Manager indicating compliance or anomalies regarding witnessed events. The Consultant is to investigate and recommend in writing any corrective actions to be taken to facilitate compliance with design intent and design criteria.

n. Provide solutions during the PV process with respect to the variances from the design parameters.

o. In consultation with the PWGSC Commissioning Manager, and the Departmental Representative, recommend take-over of the facility, after successful completion of the life safety compliance testing, subject to outstanding deficiencies or deferred tests during the operational phase.

Note: Startup and Test and Balancing (TAB) are construction activities and do not form part of the Commissioning Phase.

p. Instruct the Construction Manager to correct all the deficiencies identified and recorded during the PV and adjust or alter the systems to achieve the design parameters. Retest as required.

Training

q. Coordinate the training of O&M personnel and conduct training sessions.

Documentation

r. Review all PMSS/MMS nomenclature, devices and submissions prepared by the Construction Manager and by the various sub-contractors. Ensure on site implementation and tagging of PMSS/MMS.

s. Draft the Technical Maintenance Manual (TMM); provide all required information for the proper maintenance of the heritage masonry and all building envelope elements.

t. Prior to Interim Inspection, debrief the Departmental Representative and the PWGSC Commissioning Manager on the commissioning process

including training, problems; required changes to systems (with costs) which are outside the sub-contractors responsibility, but which are deemed necessary to meet project requirements; commissioning procedures and other information, experiences and suggestions for future projects. Submit a report to the PWGSC Commissioning Manager. Repeat this process when 80% occupancy is achieved.

6.2.5 Post-Construction (Operation)

a. Make recommended revisions to documentation to reflect all changes, modifications, revisions and adjustments as finally set upon completion of commissioning.
b. In conjunction with the PWGSC Commissioning Manager, develop an occupant's comments/complaints audit system for the facility. O&M Supervisor to track problems that occur during the Operational Phase of the project. Prepare and conduct occupant surveys every two months. Tabulate results; advise the Departmental Representative and the PWGSC Commissioning Managers and implement corrective measures as required.
c. Witness completion of Performance Verification and review reports.
d. Monitor environmental and life safety system checks which must be carried out by the Sub-contractors or O&M staff prior to the expiration of warranties.
e. Participate in warranty inspections with PWGSC Commissioning Manager, Operations Staff and sub-contractors. Prepare and submit detailed inspection reports within (5) days of inspection.
f. Identify and monitor all deficiencies to be rectified by the Sub-contractors prior to the expiration of warranties.
g. Finalize the TMM manual.
h. Submit Project Archives to the Departmental Representative and to the PWGSC Commissioning Manager, Operations staff and sub-contractors. Prepare and submit detailed inspection reports within five (5) days of inspection.
u. Participate in lessons learned workshops with PWGSC and Client/User representatives.

6.2.6 Post Construction (Evaluation)

Prepare a final written debriefing report to the Departmental Representative and to the PWGSC Commissioning Manager reviewing the Commissioning Process and discussing:

- What component and or systems, if any, that were not commissioned - and why.
- Lessons learned: What could have been done better.
- A remedial work plan outlining prudent follow-up actions or projects by PWGSC. Include scope, estimated costs and duration per follow-up item.

- Other Related information.

This report must be delivered 12 weeks after the final occupancy is achieved and shall be updated after the eleven-month warrantee inspection and reissued.

6.3 Design Intent Brief (Building Management Manual)

6.3.1 Objectives

a. The Design Intent Brief is intended to provide, firstly, a narrative description of the project's conceptual framework and, secondly, a record of and rationale for decisions made throughout the project. The Design Intent Brief represents the Consultant's point of view. It will be produced initially at the Design Development phase and subsequently updated and submitted at the end of each subsequent project delivery phase (Construction Documents and Contract and Construction Administration).
b. This Brief will serve as a "Building Management Manual" and shall be oriented towards the Owner/Investor
c. The Design Intent Brief must be well organized in terms of text and graphics to facilitate future use as a building reference document.
d. The final version of the Design Intent Brief produced at the end of the Construction and Contract Administration phase will form part of the final submission package including the Record Drawings and Contractor's Operation and Maintenance (O&M) Manual. Reference may be made in the Design Intent Brief to these other packages.

6.3.2 General

The Consultant shall prepare the Design Intent Brief. The Brief is a design document that outlines the design intent of the project and explains the purpose of the facilities and what they are meant to do.

The Brief contains a design description of each facilities system; including structural, mechanical, electrical, civil, fire protection and tunnel systems. The Design Intent Brief explains not only "what' a system and/or components do, but "why " the system or the components are being selected and, in general terms, "how" the design and operating concepts of the systems and integrated systems will be accomplished.

The Design Intent Brief differs from the traditional Contractor's Operations and Maintenance (O&M) Manual in that the O&M Manual identifies the materials and components used in a project without explaining the design intent. The O&M Manual details the materials, components, maintenance of the components, spare parts for the components, operation and performance of the components based on both the manufacturer's stated performance criteria and the actual, operational performance of the final installation. The traditional Contractor's O&M Manual identifies "what" component or system has been chosen, not "why" it has been chosen.

General requirements for all the facilities systems, including ALL interconnected or ancillary systems shall include, but are not limited to:

- A narrative description of the system or component,
- The purpose of the system or component,
- Options and analysis that were considered (concept stage only)
- The design intent,
- Sustainable features and strategies
- The design criteria and the applicable code/standard that was used, including load calculations for each discipline,
- The area served by the system or component and, as applicable, all connected or related loads and system capacities
- Any special features or unique supply items/sources, General control strategies, sequences, and reset schedules,
- Seasonal switch-over procedures,
- Emergency procedures during a fire condition, power or equipment failure
- Reduced simplified plans illustrating system configurations, including single line and plan drawings of each system,
- Interfaces with existing systems, and
- All design assumptions.

Also include, as required:

- anticipated future changes not included in the project
- any special maintenance issues
- any requirements for ongoing monitoring for geotechnical conditions or ground behaviour.

6.3.3 Production and Delivery

The format of the Design Intent Brief shall:

a. Be professionally presented in a D-ring binder with 216 mm x 280 mm quality bond paper, complete with drawings and/or plans.
b. Contain a detailed index and dividers for all sections shall be included. The index shall also include a complete detailed reference (sub-index) of the Contractor's O&M Manuals to describe where other related operations and maintenance information is located.
c. Contain a complete listing of names, addresses, telephone, and facsimile numbers of all firms, designers, and related agents who participated in the design and delivery of the project.

<u>Interim Submission Requirements:</u>

Unless otherwise indicated, submit two copies of the Design Intent Brief with each interim submission. Include all known tunnel systems, their purpose, outline control strategies and operation, relationships to connected systems, initial code analysis, and all design assumptions to date.

v. Submit in draft format at the Design Development and 66% Construction Documents. Note that this is an evolving document and only an overview is required at these submissions.

w. Update and submit for review at 99% Construction Documents submission. The Brief should be essentially in its final format regarding its structure and organization, such that subsequent submissions need only add missing information. Note that the Design Intent Brief should be 90% complete when the construction documents are tender ready.

Final Submission Requirements:

x. Submit the 99% complete Design Intent Brief to the Departmental Representative for review towards the end of the Construction and Contract Administration phase, at Interim Completion. Incorporate all comments and resubmit the Design Intent Brief as required.

y. Within twelve (12) weeks of issuance of the Interim Certificate of Completion, but prior to issuance of the Final Certificate of Completion, Submit final, 100% complete Design Intent

z. Brief with submission of Record Drawings and O&M Manual as one submission package. In addition to the contract submission requirements, provide three (3) additional electronic copies.

aa. Give an overview presentation of the Design Intent to the Contractor / Supplier, Project team at the initial stage of construction.

6.3.4 Training

Towards the end of the Construction and Contract Administration phase, the Consultant will present the Design Intent Brief as a training session for Facility Management and Operations staff.

Prepare a training course outline and submit it to the Departmental Representative for review and comment at least two weeks prior to the proposed training dates. Update and resubmit as required. Include an agenda and a course outline summarizing the content and duration of training. The training provided must clearly relay:

- An understanding of the intent of the design
- Limitations of the systems
- Reasons for the choice of systems.

Coordinate the date(s) of the training session(s) with the Departmental Representative. Departmental Representative to organize the location and provide the lists of participants. Prepare a summary of the training sessions. Indicate dates, subject matter, and all personnel present for training. After training, submit the training summary to the Departmental Representative outlining the content of training and who participated at each session.

6.3.5 Deliverables

a. Written reports on the progress of the work and the cost of the project at the end of each month
b. Additional detail drawings when required to clarify, interpret or supplement the Construction Documents
c. Post contract drawings

d. Interim or Final certificates
e. Commissioning:
    - Design Intent Brief
    - Training summary
    - Spare Parts
    - Certified and dated PV results
    - As-Built, Record Drawings and Specifications reflecting the built works
    - Debrief of Commissioning Activities
    - Warranty deficiency list

bb. A Waste Diversion Summary indicating the destination (reuse, recycling or landfill) and quantity (by weight or volume) of all waste materials removed from site.

cc. Report on Final Warranty Review

RS 7 ESTIMATING AND COST PLANNING

Cost estimates are required as prescribed in *Doing Business with NCA*. Delivering this project on time and within the approved construction budget is a high priority. The purpose of cost planning and cost control is to assist in the accomplishment of project cost objectives. It is a continuous and interactive process involving planning, action, measurement, evaluation and revision.

A fully qualified cost estimating, cost planning and cost control team, referred to herein as the Cost Specialist, with a demonstrated record of successful cost management on large construction projects, with a strong heritage component, is required. At least one member of the cost consultant team must hold professional accreditation as a quantity surveyor. This Cost Specialist shall be conversant with all aspects of construction cost estimating during the design stages, including the use of Elemental Cost Analysis, Risk Analysis, Life Cycle Costing and Value Engineering / Management techniques.

The Consultant shall maintain the project designs within the approved construction budget, including any necessary re-design, at no additional cost to PWGSC. The Cost Specialist and the entire Consultant shall co-operate and coordinate all cost information with PWGSC's Cost Management Consultant and respond to questions from the Cost Management Consultant.

The Consultant will work closely with the Construction Manager and reconcile all estimates with the ones prepared independently by the Construction Manager.

7.1 Scope of Services

The Cost Specialist shall provide an interactive and continuous cost consulting service including advising, monitoring and reporting, from the commencement of project through to construction completion, including the preparation of complete estimates and cash flows for all construction trades, escalation, inflation and contingency costs. Cost estimates shall have a summary plus full elemental backup showing item of work, quantities, unit prices and amounts. Cost estimates shall also include life cycle cost and life cycle analysis to ensure sustainable design objectives are met.

The Cost Specialist shall attend project meetings throughout the project and be prepared to present and defend the estimates directly to the PWGSC DR and the CM. Participation in working sessions with PWGSC CC to reconcile elemental cost differences within each estimate.

7.2 Services – Basic Activities

The Cost Specialist shall work with and advise the Consultant and PWGSC of the costs of individual building components and costs of various design systems. Estimates will be prepared in detail and summarized using an Elemental Analysis format as issued by the

Canadian Institute of Quantity Surveyors, differentiating base building, fit up and BCC costs as directed by PWGSC.

7.2.1 Progress Monitoring and Reporting

Progress monitoring and reporting is to include the required Elemental Summaries, supported by all backup work sheets clearly detailing the process used in preparing the estimate. The detailed work sheets shall be the prime basis on which estimates shall be reviewed by PWGSC. Cost comparisons and cost reports identifying and explaining the differences between each succeeding cost estimate and their cost effect are also required. In addition, the Cost Specialist shall fully coordinate all estimates with schedules, providing detailed cash flows, inclusive of construction, BCC and Consultant fees as separate broken down categories.

A typical Milestone Cost Estimate Report will contain:

- Project Estimate Summary,
- Elemental Estimate,
- Estimate Backup Detail
- Basis for escalation, inflation and contingency calculations,
- Detailed measurement and pricing,
- Narrative:
    - Outline description of estimate basis,
    - Description of information obtained and used in the estimate including the date received,
    - Listing of notable inclusions,
    - Listing of notable exclusions; listing of items / issues carrying significant risk,
    - Listing of assumptions,
    - Notes on past and forecast Cost Specialist activity,
    - Estimate Reconciliation:
        - With last submission,
        - Variance to approved project budget, and
        - Any other relevant information.

Exception Reporting

The Cost Specialist is to provide continuous cost monitoring, timely identification and early warning of all changes that affect or potentially affect the estimated construction costs of the project. Reports shall be submitted to PWGSC DR in the event of identified exceptions that could have significant impact on the project budget.

Time Lag

Recognizing that estimates must follow the design decisions they represent, such estimates may lag. The Milestone Cost Estimate Reports may follow the milestone, by no more than two (2) weeks unless otherwise determined by the PWGSC DR.

Use of all available information

The Cost Specialist is responsible for providing a complete cost estimate even though the information provided during the concept, design development and early working drawing stages is incomplete. Where requirements are not firmly defined, the Cost Specialist shall make assumptions, confirm them with the Consultant and the Consultant and either list them as assumptions, or have them incorporated in outline specifications.

7.2.2 Techniques

The Cost Specialist is required to be familiar with and make use of a broad range of cost techniques, especially the following.

Risk Analysis: All construction estimates (except the final pre-tender estimate) shall include and identify design, estimating, inflation escalation and currency exchange allowances as are deemed necessary in light of the current information available. The Cost Specialist shall provide a satisfactory explanation of the level and / or amount of all such sums included within any estimate.

Scheduling: The Cost Specialist shall assist the Time Specialist by providing building quantities, building systems information and other quantifiable parameters deemed appropriate to the calculation of a reasoned project time schedule. The Time Specialist shall assist the Cost Specialist by maintaining an up-to-date schedule of all design activities along with an agreed bidding and construction schedule that will be incorporated by the Cost Specialist within the estimates on a timely basis.

Life Cycle Costing: In advising the Consultant of the cost information for alternative materials, methods and systems, it is necessary that the Cost Specialist uses all available information to ensure that a complete cost picture is made available, upon which design and construction decisions will be made. It is expected that lifecycle costing shall be required on key building components such as major mechanical, roofing, windows, etc.

Continuing Estimate Process: A process of continual adjustment of previous estimates may be used in place of total re measurement at each milestone reporting point. This is acceptable, provided that, at each monthly reporting point, a full and up-to-date Elemental Cost Summary is provided, and that at each milestone reporting point this Elemental Cost Summary is supported by complete, detailed, stand alone back-up/support documentation, as previously described.

Project Research: The Cost Specialist shall visit the proposed construction site to become familiar with site conditions, site access, etc., analyze local labour and material supply conditions, local bidding practices and competition to establish pricing levels. A written report detailing each reconnaissance activity is required.

Value Engineering / Management PWGSC will have a Value Engineering Study to be undertaken at identified stages of the project design that will be lead by PMSS. The Consultant shall answer questions and provide information called for by the Value Management Team. The Cost Specialist shall assist the Value Management Team by providing copies of the latest cost estimate and any additional cost information that may be required.

7.3 Services - Project Stages Specific Activities

Schematic Design Update
Review, confirm understanding, report on, and update the approved construction budget (existing Class 'C' estimate). Do not proceed until the PWGSC Cost Management Consultant and the PWGSC DR have accepted the revised Class 'C' estimates. The revised Class "C" estimate shall become the Construction Cost Plan.

Design Development
Midway through design development, cost estimates are to be prepared for the 50% and the 100% submissions, and milestone reports issued, to ensure the project is maintaining the budget requirements. Upon completion of design development, prepare a Class 'B' estimate representing the increased level of design detail available. The reports shall be prepared using detailed (elemental) costs i.e. measured quantities with minimal allowances or lump sums. The Class 'B' estimates must be broken down in conformity with the tender packages. Upon final acceptance, the Class 'B' estimate shall become the Construction Cost Plan.

Construction Documents - for each tender package
During the production of the Construction Documents, a process of continuous cost control that is progressively more detailed is required. With each submission of Construction Documents (66%, 99% and 100%), an up-to-date estimate shall demonstrate compliance with the construction cost plan. Non-compliance with the construction cost plan will require revisions to the Construction Documents at no cost to PWGSC.

Pre-Tender
Upon completion of the Construction Documents for each of the tender packages, a pre-tender Class 'A' cost estimate shall be prepared using 100% measured quantities. Provide a trade breakdown of the pre-tender estimate for construction packages for use in reviewing the submitted bids and the Construction Manager's estimate breakdown.

Tender Stage

a. **Tender Award** During each of the tender periods, examine and report on any cost impact created by the issue of Tender Documents/addenda. Incorporate the results of such addenda review into the final pre-tender estimate (both elemental and trade formats) after the close of addenda but prior to receipt of bids.
b. **Bid Review and Analysis** Assist the PWGSC DR, as required, by analyzing and reconciling any differences between the pre-tender estimates and the submitted bids.
c. **Negotiation** Should it be necessary to negotiate with any bidder prior to awarding a construction contract, the Cost Specialist shall provide cost information as needed and participate in the negotiations if requested.

d. **Reconciliation** After contract award of trade contracts, the Cost Specialist, if necessary, will reconcile both the elemental and trade estimates, in detail, with the agreed contract sum. The Consultant will use these reconciled estimates during the construction phase of the project.

Construction Stage
During construction, the Cost Specialist shall assist the Construction Manager with cost advice in relation to the following:

- Evaluation of change orders.
- Evaluation of claims.
- Evaluation of work completed.
- Evaluation of cash flow.

Post-Construction Stage
Provide a debriefing report on all cost related matters, including from a cost perspective, lessons learned.

7.4 Responsibilities to PWGSC

a. The Departmental Representative will review all aspects of the Cost Specialist's work on a continuing basis to determine the validity and completeness of the information provided. In the event the Departmental Representative may identify areas of concern including errors and omissions as well as areas of inadequate detail or areas that require further explanation, the Cost Specialist shall re-examine the estimates provided and make such revisions as are subsequently agreed to be necessary and/or provide ample acceptable evidence that such corrections or amendments are unnecessary.

b. **No Action Abrogates Consultant's Responsibilities**

- No acceptance or approval by the Departmental Representative, whether expressed or implied shall be deemed to relieve the Cost Specialist, or the Consultant, of professional or technical responsibility for the estimates and cost reports.
- Neither does acceptance of an estimate by the Departmental Representative in any way abrogate the Consultant's responsibility to maintain the agreed Construction Cost Plan throughout the life of the project, or the requirement to redesign should the lowest acceptable bid differ significantly from the agreed Construction Cost Plan, unless and until the Departmental Representative indicates otherwise in writing.

RS 8 PROJECT TIME PLANNING, SCHEDULING AND CONTROL

8.1 Planning/Scheduling

Planning and Scheduling are high priorities with all federal government projects. For the GCC Rehabilitation project, the key driver is to meet the schedule requirements for the Centre Block program. The concept of planning and scheduling is to facilitate the accomplishment of objectives, and should be thought of as a continuous interactive process involving planning, action, measurement, evaluations and revision.

The Time Specialist shall play a major role in the development and monitoring of the project schedule and provide scheduling services from commencement of the award of the Consultant contract, through to construction and commissioning completion, including the warranty period. The Time Specialist will also advise and cooperate in the preparation and maintenance of the construction cost plan. Coordination, consultation, review, approval of all BCC processes related to Consultant's deliverables with and by the Client/Users are to be integrated throughout all aspects of the planning and scheduling.

The Time Specialist and the Consultant shall co-operate and coordinate all planning and scheduling information with PWGSC's Schedule Consultant and respond to questions from the PWGSC's SC.

The Time Specialist shall provide a schedule limited to the Consultant activities and reviews and approvals.

8.2 Scope of Work

8.2.1 General

The Time Specialist shall be responsible for preparing, monitoring and maintaining the schedule until all construction documents are completed. The Time Specialist will be conversant with project site conditions at all times. The Time Specialist shall attend project meetings up to the Tender of each issuance and be prepared to present and defend the schedules directly to the PWGSC DR and the SC.

The services are limited to the Consultant's own activities, milestones and deliverables including all the review durations and submissions. The Construction Manager will have the role to include this schedule into an overall project schedule that include tender, construction and other related activities.

The general scope of work for planning and scheduling services include the following activities:

a. Develop a schedule with key milestones for the required work and activities associated with the Consultant's services,

b. Identify Major Elements / Phases of Work of the project,
c. Develop, monitor & maintain detail schedules, bar charts, and milestone listings,
d. Attend meetings,
e. Prepare monthly Progress Reports and highlight in summary format all areas of concern or where potential or real rick may impact the project delivery.

8.2.2 Planning

Project Work Breakdown Structure

Prepare a Work Breakdown Structure (WBS) for the design work on the project. This WBS should be developed through at least five levels: project, stage, element, sub-element and work package.

Cash Flow Projection

The Time Specialist will provide scheduling data to the Consultant and Cost Specialist to support the development and maintenance of the cash flow for the project.

8.2.3 Scheduling

Detailed Schedules

The Time Specialist shall prepare and maintain a detailed schedule. The schedule shall be prepared and maintained, monthly, in consultation with all members of the Consultant, PWGSC, Construction Manager and the Client/Users. Activities must also be shown for all design and construction documents phases of the project and inclusive of all submissions, reviews and approvals.

In order to provide a reasonable basis for progress monitoring and control, the schedule shall be in sufficient detail to ensure adequate planning and control. In no case will any activity duration exceed one month. The detail activities must relate at all times to the milestones developed and approved in the CM schedule maintained by the CM and the master program schedule maintained by PWGSC's SC.

The activities with no total float (early finish and late finish on the same date), which form the critical path, must be calculated and clearly indicated on the logical network. No more than ten (10) percent of the activities shall be critical, or near critical.

The Consultant and Time Specialist shall, at PWGSC's request and without additional charges, provide all additional information required by the PWGSC or PWGSC's SC to validate the practicality of the project schedule.

Compliance with the Detailed Schedule

The Consultant must comply with the approved detail schedule, planning, coordinating and implementing their work with respect to the schedule.

Progress Monitoring and Reporting

On a monthly basis, in accordance with 8.3, with status dated on the last working day of the month, the Time Specialist working with the Project Team shall perform a detailed

schedule update as part of the monthly progress report. The detailed schedule shall reflect the following:

a. Progress of each activity to the date of the report,
b. Any logic changes, both historic and planned,
c. Projections of progress and completion,
d. The actual start and finish dates of all activities being monitored,
e. A Gantt chart listing of all project activities including milestones in all networks (and sub-networks) from project start to project end. Group activities by similar work packages and sort by early start dates. List early and late start and finish dates together with durations, codes and float,
    - A criticality report listing all activities and milestones with negative, zero and up to five (5) days total float used as a first sort for ready identification of the critical, or near critical paths through the entire project. List early and late start and finish dates, together with durations, codes and float for the critical activities printed,
f. A written monthly Progress (narrative) Report, by the Time Specialist, based on the detailed schedule, detailing the work performed to date, comparing work progress to planned, and presenting current forecasts. This report is to summarize the progress to date, explaining current and possible deviations and delays with respect to the detailed schedule and critical path. The report shall assess progress against project objectives, contract documents and the master program schedule.

Construction and Implementation

During construction and commissioning, the Consultant and Time Specialist will:

a. Participate in working sessions with PWGSC and the Construction Manager and its sub-contractors,
b. Assist the Construction Manager as needed to develop their construction schedule,
c. Identify, in detail, Client/Users moves,
d. Assist in the development of the Construction Manager's' commissioning and warranty inspection schedules,
e. Advise and prepare variance analysis reports as required, and
f. Upon receipt of the Construction Manager's current monthly status report, progress claim and project schedule, the Consultant and Time Specialist will review the information by:
    - Evaluating, on a general basis, actual progress achieved to date, and
    - Comparing the current status of detailed schedule and cash flow status with previously submitted detailed schedules and cash flows.

8.3 Project Reporting

Monthly (Technical Focus)

The Consultant, in consultation with the Cost and Time Specialists, will prepare and submit monthly technical Progress Reports throughout the project, in a format agreed to

with the PWGSC DR. The purpose of the report will be to review and monitor progress of the services by the Consultant and work by the Construction Manager. The report shall identify the progress of all deliverables, identify all instances where the schedule or cost plan are not being met, outline remedial measures being taken and identify any anticipated or potential problems to be addressed. This report is to be issued to the PWGSC DR.

Quarterly (Management Focus)
Quarterly, the Consultant, in consultation with the Cost and Time Specialists, shall submit a high level management report summarizing the project status including progress and issues internal to the design team. During construction, the reports reviewing the Construction Managers performance and BCC implementation relative to cost, cash flow, schedule and quality are required. Non-conformance issues (pre and post construction) are to be highlighted in this report. This report is to be issued to the PWGSC DR.

8.4 Responsibilities to PWGSC

a. The Departmental Representative will review all aspects of the Time Specialist's work on a continuing basis to determine the validity and completeness of the information provided. In the event the Departmental Representative may identify areas of concern including errors and omissions as well as areas of inadequate detail or areas that require further explanation, the Time Specialist shall re-examine the schedules provided and make such revisions as are subsequently agreed to be necessary and/or provide ample acceptable evidence that such corrections or amendments are unnecessary.

b. **No Action Abrogates Consultant's Responsibilities**
    i. No acceptance or approval by the Departmental Representative, whether expressed or implied shall be deemed to relieve the Time Specialist, or the Consultant, of professional or technical responsibility for the schedules and schedule reports.

RS 9 RESIDENT SITE SERVICES DURING CONSTRUCTION

9.1 General

In order to ensure successful execution of the project it will be mandatory for the Consultant to provide full time Resident Site Services. This will be done through several individuals and skills required will depend on the work being executed. The Resident Site Representatives (RSR) shall be required to provide continuous site review, including when construction operations perform multiple shifts per day. Additional RSR resources may be required, as warranted, as an additional service. The Consultant shall obtain approval from the PWGSC DR prior to the deployment of additional RSR resources. The requirements herein are, currently, the minimum requirements of this project.

9.2 Description of Services

The purpose of Resident Site Services is to ensure the presence of the Consultant's representatives on-site to inspect, coordinate and monitor all aspects of the work during the construction of the facility, and liaise with the CM, PWGSC and other agencies as appropriate to the work. Those services are over and above those inspection services listed under RS5.

A minimum of two (2) Resident Site Representatives are required to be on site at all times as soon as construction implementation begins:

a. The Principle Resident Site Representative shall be a Senior Architect with at least 10 years of resident site supervision experience on large and directly relevant construction projects, large is considered to be a project with a construction value over $10M. This individual is required to be present on site for the full duration of the project.
b. An assistant to the Principal resident Site Representative with at least 5 years of previous resident site services experience. This individual is also required to be present on site for the full duration of construction.

The RSR shall:

a. Be directly responsible to the Consultant and all members of the Consultant;
b. Become thoroughly familiar with the Contract documents, the National Building code and all Fire Commissioner of Canada Standards (incl. FCC No. 301 dated June 1982 FCC No. 302 dated June 1982). The RSR shall also be aware of all Federal, Provincial and Municipal standards for the health and safety of construction workers; and
c. Become thoroughly familiar with the requirements of the Project Brief and project responsibilities of others which relate to these services.

9.3 Specific Duties and Responsibilities

9.3.1 General

The RSR shall inspect all phases of the work in progress to ensure that all work is proceeding in accordance with Contract Documents. The RSR is to bring to the attention of the Construction Manager, after checking with the Consultant, any discrepancies between the work, the contract documents and accepted construction procedures. Issues of significance are to be reported immediately to the Consultant, appropriate Consultant members, the PWGSC Project and Commissioning Managers and PMSS.

The RSR shall keep a daily log of such inspections and shall issue a weekly written report to the Consultant, for distribution to the Project Team. The RSR shall make any other reports or surveys as may be requested by the PWGSC DR or PMSS through the Consultant.

The RSR shall verify quantities of materials received and record work progress through daily photographs. If work is based on unit prices, measure and record the quantities for verification of monthly progress claims and the Final Certificate of Measurement.

9.3.2 Interpretation of the Contract Documents

Interpretation of the Contract Documents shall be the responsibility of the Consultant. The Consultant may, however, have the RSR provide the Consultant with information regarding job conditions and may require the RSR to relay day-to-day instructions to the Contractor(s). It shall be the duty of the RSR to assist the Consultant and further inform the Consultant of any anticipated problems which may delay the progress of the work. The RSR and Consultant shall be required to provide any additional detail drawings as and when required to properly clarify or interpret the Contract Documents. The Consultant shall determine the method of relaying such information.

9.3.3 Changes in the Work

The RSR shall not authorize or order any change in the work which will constitute a change in design or in the value of the contract except as delegated by the PWGSC DR. The Consultant may call upon the RSR to assist in the evaluation of changes in the work, where knowledge of job conditions is required.

9.3.4 Communication & Liaison

The RSR shall:

a. Convey the Consultant's instructions regarding the required standards of workmanship to the Construction Manager;
b. Refer to specifications, confer and obtain guidance on these findings with the Consultant. The matter is then to be brought to the attention of the Construction Manager’s Superintendent. Although informal discussions with sub-trade Superintendents are usually permissible, (but only with the

agreement of the Construction Manager), the RSR should not deal directly with foreman or tradesmen, or interfere with the progress of the work;

c. Communicate formally with the Construction Manager via memorandum form only. When this form is issued, the RSR must immediately file copies with the PWGSC Project and Commissioning Managers, PMSS and the Consultant;
d. Contact the Consultant immediately when it is apparent that information or action is required of the Consultant, e.g., general instructions, clarifications, sample of shop drawing approvals, requisitions, contemplated change orders, site instructions, details, drawings, etc.;
e. Accompany PWGSC and Client/User representatives on inspections and report to the Consultant requirements, comments or instructions of the PWGSC forces. Note that the RSR should encourage such requirements, comments or instructions to be provided in writing;
f. Consider and evaluate any suggestions or modifications to the documents advanced by the Contractor(s) and immediately report these to the Consultant with comments;
g. Ensure that the PWGSC Project and Commissioning Managers, the PMSS and the Consultant are notified promptly when key pieces and/or components of materials and equipment are delivered, so that these parties can arrange for the appropriate personnel to have an opportunity to inspect same prior to installation; and
h. The RSR will investigate, witness, review and approve in writing, all temporary or permanent connections into any of the buildings' systems prior to the work being undertaken.

9.3.5 Daily Log

The RSR shall keep a daily log recording at minimum the following:

- Weather conditions, particularly unusual weather relative to construction activities in progress;
- Major material and equipment deliveries;
- Daily activities and major work done through all shifts of construction work;
- Start, stop or completion of activities through all shifts of construction work;
- Presence of inspection and testing firms, tests taken, results, etc.;
- Unusual site conditions experienced;
- Significant developments, remarks, lessons learned etc.; and
- Reports, instructions from appropriate authorities' response actions.

Note: The log and daily photographs are the personal property of the RSR. Copies of the logbook and daily photographs, certified as true copies, are to be provided to PWGSC DR and Consultant weekly.

9.3.6 Site Records

The RSR shall maintain orderly and updated files at the site for the use of the PWGSC DR, PMSS PM, and the Consultant as follows:

- Issued for Construction Documents,
- Approved Shop Drawings,
- Approved Samples,
- Site Instructions,
- Contemplated Change Orders,
- Change Orders,
- Progress photographs, daily
- Memoranda,
- Test and Deficiency Reports,
- Correspondence and Minutes of Meeting,
- Names, addresses, telephone numbers of PWGSC representatives, Consultant and Construction Manager and its sub-contractors key personnel associated with the contract, including home telephone numbers in case of emergencies.

Issued for Construction Documents shall be carefully preserved and shall be kept marked up to date with all change orders, site instructions, details, as-built conditions, etc., for each construction contract. The RSR shall follow approved protocol for the security and protection of the construction documents and information held on-site. The RSR shall review monthly the accuracy of as-built marked up drawings kept by the Construction Manager and report any discrepancies or deficiencies to the Consultant, prior to processing of progress payments.

9.3.7 Schedule

a. Monitor the approved construction schedule, take necessary steps to ensure that the schedule is maintained and submit a detailed monthly report to the PWGSC DR, PMSS, the Consultant and Schedule Consultant concerning any delays.
b. Keep accurate records of causes of delays and related issues,
c. Make every effort to assist the CM to avoid delays,
d. In discussion with the CM , Consultant and Schedule Consultant ensure the commissioning schedule is updated throughout the project,
e. Only PWGSC may approve any request for Time Extensions.

9.3.8 Inspection of the Work

As the work progresses, the RSR shall make on-site observations and spot checks of the work to determine whether the work, materials and equipment conform to the contract documents and supplementary documentation. The RSR shall advise the Construction Manager of any deficiencies or unapproved deviations via memorandum and report immediately to the Consultant, the PWGSC Project and Commissioning Managers and PMSS any of these on which the Construction Manager is tardy or refuses to correct.

Through effective and timely communications, the RSR shall arrange for the Consultant to undertake periodic inspections with respect to the progress of the work. The RSR shall further coordinate all inspections with Authorities Having Jurisdiction

to review/inspect the construction work at appropriate times and shall advise the Consultant, PWGSC Project and Commissioning Managers and the PMSS of such inspections.

The RSR shall also report if materials and equipment are being incorporated into the project prior to approval of relative shop drawings or samples. The RSR shall assist in the preparation of all deficiency, interim, preliminary and final reports and certificates in collaboration with PWGSC and the Consultant. The RSR shall be responsible for the measurement of all work to be done on a unit-cost basis.

9.3.9 Site Meetings

The RSR shall attend all job-site meetings. Immediately after Consultant contract award, arrange briefing meeting with Project Team.

9.3.10 Inspection and Testing

The RSR must see that the tests and inspections required by the Contract Documents are conducted, and is to ensure the designer of record is present to witness and certify the results. Report the results in the daily log. The Consultant, PWGSC Commissioning Manager and PMSS are to be notified by the RSR as to when testing will occur in advance of the tests.

9.3.11 Limitations

The RSR shall not:

dd. Authorize deviations from the contract documents;
ee. Conduct tests or certify test results;
ff. Approve shop drawings or samples;
gg. Advise the Client / Users in any matter without obtaining guidance from PWGSC;
hh. Accept any work or portions of the building;
ii. Enter into the area of responsibility of the Contractor's Site Superintendent; and
jj. Stop the work unless convinced that an emergency exists as noted above.

RS 10 BILINGUAL DOCUMENTS

10.1 Scope of Services

10.1.1 Design Deliverables

Produce Design Deliverables in accordance with the following language requirements:

- Prepare visual presentations to Authorities Having jurisdiction (as described in PA1.13 Submissions, Reviews and Approvals in Canada‘s two official languages.

10.1.2 Construction Documents

Produce the Construction documents under the Terms of this Contract.

10.1.3 Commissioning-related Documents

Produce the following commissioning-related documents in Canada’s two official languages:

- Final Systems Operational Manual
- Training documentation
- Design intent documentation

10.2 Quality Standards

Ensure that the services and deliverables provided are of a professional standard in both languages when required. Assume professional responsibility for completeness and consistency of translation. Both languages are considered equal in status – neither is considered to be of lesser standing because it is a translation of the other.