



**Regional Manager/Real Property
Contracting/PWGSC
Ontario Region, Tendering Office
12th Floor, 4900 Yonge Street
Toronto, Ontario
M2N 6A6
Ontario**

Offre à commandes individuelle du département(OCID)

Canada, as represented by the Minister of Public Works and Government Services Canada, hereby requests a Standing Offer on behalf of the Identified Users herein.

Le Canada, représenté par le ministre des Travaux Publics et Services Gouvernementaux Canada, autorise par la présente, une offre à commandes au nom des utilisateurs identifiés énumérés ci-après.

Comments - Commentaires

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

Regional Manager/Real Property Contracting/PWGSC
Ontario Region, Tendering Office
12th Floor, 4900 Yonge Street
Toronto, Ontario
M2N 6A6
Ontario

Title - Sujet Architectural Services RFSO	
Solicitation No. - N° de l'invitation EQ754-161519/A	Date 2015-12-21
Client Reference No. - N° de référence du client 20161519	GETS Ref. No. - N° de réf. de SEAG PW-\$PWL-027-2095
File No. - N° de dossier PWL-5-38165 (027)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2016-02-02	Time Zone Fuseau horaire Eastern Standard Time EST
Delivery Required - Livraison exigée	
Address Enquiries to: - Adresser toutes questions à: Jackson, Dahlia	Buyer Id - Id de l'acheteur pwl027
Telephone No. - N° de téléphone (416)512-5918 ()	FAX No. - N° de FAX (416)512-5862
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: Ontario Region	
Security - Sécurité This request for a Standing Offer does not include provisions for security. Cette Demande d'offre à commandes ne comprend pas des dispositions en matière de sécurité.	

Instructions: See Herein

Instructions: Voir aux présentes

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

REQUEST FOR STANDING OFFER (RFSO)

ARCHITECTURAL SERVICES

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SUPPLEMENTARY INSTRUCTIONS TO PROPONENTS (SI)

SI 1 INTEGRITY PROVISIONS – DECLARATION OF CONVICTED OFFENCES

As applicable, pursuant to subsection Declaration of Convicted Offences, of the Integrity Provisions – Proposal section, of the General Instructions, the Proponent must provide with its bid, a completed Declaration Form, to be given further consideration in the procurement process.

SI 2 FEDERAL CONTRACTORS PROGRAM FOR EMPLOYMENT EQUITY - 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://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml) available from Employment and Social Development Canada (ESDC)-Labour's website.

Canada will have the right to declare a proposal non-responsive, or to set-aside a Standing Offer, 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 issuing of a Standing Offer or during the period of the Standing Offer.

Canada will also have the right to terminate the Call-up 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 contract.

The Proponent must provide the Contracting Authority with a completed Federal Contractors Program for Employment Equity - Certification (see Appendix A - Declaration/Certifications Form), before the issuance of a Standing Offer. 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.

SI 3 SECURITY REQUIREMENTS

Proponents are hereby informed that there is a strong possibility that some call-ups against the Standing Offers might require that the consultants and their personnel possesses a Facility Security Clearance (FSC) at the RELIABILITY level issued by the Canadian Industrial Security Directorate (CISD) of Public Works and Government Services Canada (PWGSC).

Should a Proponent not have the level of security indicated above, the security clearance process can be initiated by the Proponent by contacting the PWGSC Security Advisor at the coordinates below:

Regional Chief Security and Emergency Preparedness
Telephone: 416-512-5968
Facsimile: 416-952-6481
Email:

ONTSecurityandEmergencyManagement.SecuriteetGestiondes@pwgsc-tpsgc.gc.ca

Successful proponent(s) issued a standing offer as a result of this RFSO, who do not possess the required security clearance at time of call up, will be bypassed and PWGSC will proceed to the next consultant who possesses the required security clearance and is furthest away from the ideal business distribution. Refer to the Standing Offer Particulars SP 5.1.a for information regarding ideal business distribution.

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GENERAL INSTRUCTIONS TO PROPONENTS

Integrity Provisions – Proposal

1. Interpretation

For the purposes of these Integrity Provisions, the following definitions apply:

"Administrative Agreement"

is a negotiated agreement between a supplier/potential supplier and the Minister of PWGS as provided for in the [Ineligibility and Suspension Policy](http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-fra.html) (<http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-fra.html>).

"Affiliate"

is a person, including, but not limited to, organizations, bodies corporate, societies, companies, firms, partnerships, associations of persons, parent companies or subsidiaries, whether partly or wholly-owned, as well as individuals, directors, officers and key employees if:

- i. one controls or has the power to control the other, or
- ii. a third party has the power to control both.

"Control"

means:

- a. direct control, such as where:
 - i. a person controls a body corporate if securities of the body corporate to which are attached more than 50 percent of the votes that may be cast to elect directors of the body corporate are beneficially owned by the person and the votes attached to those securities are sufficient, if exercised, to elect a majority of the directors of the body corporate;
 - ii. a person controls a corporation that is organized on a cooperative basis if the person and all of the entities controlled by the person have the right to exercise more than 50 percent of the votes that may be cast at an annual meeting or to elect the majority of the directors of the corporation;
 - iii. a person controls an unincorporated entity, other than a limited partnership, if more than 50 percent of the ownership interests, however designated, into which the entity is divided are beneficially owned by that person and the person is able to direct the business and affairs of the entity;
 - iv. the general partner of a limited partnership controls the limited partnership; and
 - v. a person controls an entity if the person has any direct or indirect influence that, if exercised, would result in control in fact of the entity.
- b. deemed control, such as where:
 - a person who controls an entity is deemed to control any entity that is controlled, or deemed to be controlled, by the entity
- c. indirect control, such as where:
 - a person is deemed to control, within the meaning of paragraph (a) or (b), an entity where the aggregate of
 - i. any securities of the entity that are beneficially owned by that person, and
 - ii. any securities of the entity that are beneficially owned by any entity controlled by that person is such that, if that person and all of the entities referred to in paragraph (c)(ii) that beneficially own securities of the entity were one person, that person would control the entity.

"Ineligibility"

means not eligible for contract award.

"Suspension"

means a determination of temporary ineligibility by the Minister of PWGSC.

2. Statement

- a. Proponents must comply with the [Code of Conduct for Procurement](http://www.tpsgc-pwgsc.gc.ca/app-acq/cndt-cndct/contexte-context-eng.html) (<http://www.tpsgc-pwgsc.gc.ca/app-acq/cndt-cndct/contexte-context-eng.html>) and be eligible for the issuance of a standing offer or contract award under the [Ineligibility and Suspension Policy](http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-fra.html) (<http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-fra.html>). In addition, Proponents must respond to Request for Standing Offers (RFSO) in an honest, fair and comprehensive manner, and that accurately reflect their capacity to satisfy the requirements stipulated in the RFSO, Standing Offer (SO) and any resulting contracts, and submit proposals as well as enter into contracts only if they will fulfill all obligations of the Contract.
- b. By submitting an offer, Proponents confirm that they understand that being convicted of certain offences will render them ineligible to be issued a Standing Offer or to be awarded a contract. Canada will declare non-responsive any proposal in respect of which the information requested is incomplete or inaccurate, or in respect of which the information contained in the certifications is found by Canada to be untrue in any respect, at the time of issuance of the Standing Offer (SO). If it is determined by the Minister of PWGS, after issuance of the SO, that the Proponent made a false declaration, Canada will, following a notice period, have the right to set aside the SO and to terminate for default any resulting contracts.

3. List of Names

- a. Proponents who are incorporated, including those submitting proposals as a joint venture, must provide a complete list of names of all individuals who are currently directors of the Proponent. Proponents submitting proposals as sole proprietorship, as well as those submitting proposals as a joint venture, must provide the name of the owner(s). Proponents submitting proposals as societies, firms, or partnerships do not need to provide lists of names.
- b. If the required list of names has not been received by the time the evaluation of proposals is completed, Canada will inform the Proponent of a time frame within which to provide the information. Failure to provide the names within the time frame specified will render the proposal non-responsive. Providing the required names is a mandatory requirement for a Standing Offer to be issued.
- c. The Proponent must immediately inform Canada in writing of any changes affecting the list of names of directors during this procurement process.

4. Request for Additional Information

By submitting a proposal, the Proponent certifies that it is aware, and that its Affiliates are aware, that Canada may request additional information, certifications, validations from a third party qualified by the Minister of PWGS, and other evidentiary elements proving identity or eligibility to contract with Canada. Canada may also verify the information provided by the Proponent, including the information relating to convictions for certain offences and any conditional or absolute discharges specified in these Integrity Provisions.

5. Lobbying Act

By submitting a proposal, the Proponent certifies that neither it nor any of its Affiliates have directly or indirectly, paid or agreed to pay, and will not, directly or indirectly, pay a contingency fee to any individual for the solicitation, negotiation or obtaining of the Standing Offer and any resulting call-ups if the payment of the fee would require the individual to file a return under section 5 of the [Lobbying Act](http://laws-lois.justice.gc.ca/eng/acts/L-12.4/) (<http://laws-lois.justice.gc.ca/eng/acts/L-12.4/>).

6. Canadian Offences Resulting in Legal Incapacity

By submitting a proposal, the Proponent certifies that:

- a. it and the Affiliates of the Proponent have not been convicted of or pleaded guilty to an offence under any of the following provisions which would result in a legal incapacity under section 750(3) of the [Criminal Code](http://laws-lois.justice.gc.ca/eng/acts/C-46/) (<http://laws-lois.justice.gc.ca/eng/acts/C-46/>) and for which they have not been pardoned or received a record of discharge under the Canadian Pardons subsection:
 - i. paragraph 80(1)(d) (*False entry, certificate or return*), subsection 80(2) (*Fraud against Her Majesty*) or section 154.01 (*Fraud against Her Majesty*) of the [Financial Administration Act](http://laws-lois.justice.gc.ca/eng/acts/f-11/) (<http://laws-lois.justice.gc.ca/eng/acts/f-11/>), or
 - ii. section 121 (*Frauds on the government and Contractor subscribing to election fund*), section 124 (*Selling or Purchasing Office*), section 380 (*Fraud*) for fraud committed against Her Majesty or section 418 (*Selling defective stores to Her Majesty*) of the [Criminal Code](http://laws-lois.justice.gc.ca/eng/acts/C-46/), or
- b. the Proponent has not been convicted of or pleaded guilty to the offences described in paragraph (a) and certifies that it has not directed, influenced, authorized, assented to, acquiesced in or participated in the commission or omission of the acts or offences that would render that Affiliate ineligible to be issued a standing offer or to be awarded a contract as described in (a).

7. Canadian Offences

By submitting a proposal, the Proponent certifies that:

- a. the Proponent and the Affiliates of the Proponent have not, in the last three years, from the proposal submission date, been convicted of or pleaded guilty to an offence under any of the following provisions for which they would be ineligible to be issued a standing offer or to be awarded a contract under these Integrity Provisions and for which they have not been pardoned or received a record of discharge under the Canadian Pardons subsection:
 - i. section 119 (*Bribery of judicial officers, etc*), section 120 (*Bribery of officers*), section 346 (*Extortion*), sections 366 to 368 (*Forgery and other offences resembling forgery*), section 382 (*Fraudulent manipulation of stock exchange transactions*), section 382.1 (*Prohibited insider trading*), section 397 (*Falsification of books and documents*), section 422 (*Criminal breach of contract*), section 426 (*Secret commissions*), section 462.31 (*Laundering proceeds of crime*) or sections 467.11 to 467.13 (*Participation in activities of criminal organization*) of the [Criminal Code](http://laws-lois.justice.gc.ca/eng/acts/C-46/), or
 - ii. section 45 (*Conspiracies, agreements or arrangements between competitors*), section 46 (*Foreign directives*), section 47 (*Bid rigging*), section 49 (*Agreements or arrangements of federal financial institutions*), section 52 (*False or misleading representation*), section 53 (*Deceptive notice of winning a prize*) of the [Competition Act](http://laws-lois.justice.gc.ca/eng/acts/C-34/) (<http://laws-lois.justice.gc.ca/eng/acts/C-34/>), or
 - iii. section 239 (*False or deceptive statements*) of the [Income Tax Act](http://laws-lois.justice.gc.ca/eng/acts/I-3.3/index.html) (<http://laws-lois.justice.gc.ca/eng/acts/I-3.3/index.html>), or
 - iv. section 327 (*False or deceptive statements*) of the [Excise Tax Act](http://laws-lois.justice.gc.ca/eng/acts/E-15/) (<http://laws-lois.justice.gc.ca/eng/acts/E-15/>), or
 - v. section 3 (*Bribing a foreign public official*), section 4 (*Accounting*), or section 5 (*Offence committed outside Canada*) of the [Corruption of Foreign Public Officials Act](http://laws-lois.justice.gc.ca/eng/acts/C-45.2/) (<http://laws-lois.justice.gc.ca/eng/acts/C-45.2/>), or
 - vi. section 5 (*Trafficking in substance*), section 6 (*Importing and exporting*), or section 7 (*Production of substance*) of the [Controlled Drugs and Substance Act](http://laws-lois.justice.gc.ca/eng/acts/C-38.8/) (<http://laws-lois.justice.gc.ca/eng/acts/C-38.8/>); or
- b. the Proponent has not been convicted of or pleaded guilty to the offences described in paragraph (a) and it has not directed, influenced, authorized, assented to, acquiesced in or participated in the commission or omission of the acts or offences that would render that Affiliate ineligible to be issued a standing offer or to be awarded a contract as described in (a).

8. Foreign Offences

By submitting a proposal, the Proponent certifies that:

- a. the Proponent and its Affiliates have not, in the last three years, from the proposal submission date, been convicted of or pleaded guilty to an offence in a jurisdiction other than Canada that would, in Canada's opinion, be similar to an offence referenced in the Canadian Offences Resulting in Legal Incapacity and the Canadian Offences subsections, and for which it would be ineligible to be issued a standing offer or to be awarded a contract under these Integrity Provisions and for which they have not been pardoned under the Foreign Pardons subsection and:
 - i. the court, before which the Proponent or its Affiliate appeared, acted within the court's jurisdiction;
 - ii. the Proponent or its Affiliate appeared during the court's proceedings or submitted to the court's jurisdiction;
 - iii. the court's decision was not obtained by fraud, and
 - iv. the Proponent or its Affiliate was entitled to present to the court every defence that the Proponent or its Affiliate would have been entitled to present had the proceeding been tried in Canada; or
- b. it has not been convicted of or pleaded guilty to the offences described in paragraph (a) and certifies that it has not directed, influenced, authorized, assented to, acquiesced in or participated in the commission or omission of the acts or offences that would render that Affiliate ineligible to be issued a standing offer or to be awarded a contract as described in (a).

9. Ineligibility for the issuance of a Standing Offer

- a. The Proponent confirms that it understands that where it or any of its Affiliates have been convicted of certain offences or have been held responsible of certain acts, as described under the Canadian Offences Resulting in Legal Incapacity, the Canadian Offences, the Foreign Offences and the Lobbying Act subsections, the Proponent or its Affiliate is ineligible to be issued a standing offer, subject to a Public Interest Exception.
- b. The Proponent confirms that it understands that it is ineligible for the issuance of a standing offer where it has been so determined by the Minister of PWGS under the [Ineligibility and Suspension Policy](http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-fra.html) (<http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-fra.html>) and that the period of ineligibility or suspension has not expired.

10. Declaration of Convicted Offences

Where a Proponent or its Affiliate is unable to certify that it has not been convicted of any of the offences referenced under the Canadian Offences Resulting in Legal Incapacity, the Canadian Offences and the Foreign Offences subsections, the Proponent must provide with its proposal the completed [Declaration Form](http://www.tpsgc-pwgsc.gc.ca/ci-if/formulaire-form-eng.html) (<http://www.tpsgc-pwgsc.gc.ca/ci-if/formulaire-form-eng.html>), to be given further consideration in the procurement process.

11. Period of Ineligibility

The following rules determine the period for which a Proponent or its Affiliate that has been convicted of certain offences is, ineligible to be issued a standing offer or to be awarded a contract:

- a. for all offences referenced under the Canadian Offences Resulting in Legal Incapacity subsection for which a Proponent or an Affiliate of the Proponent has pleaded guilty to or has been convicted of, the period of ineligibility for the issuance of a standing offer or for contract award is indefinite, subject to the Canadian Pardons subsection.
- b. subject to an Administrative Agreement, for all offences referenced under the Canadian Offences and Foreign Offences subsections for which a Proponent or an Affiliate of the Proponent has pleaded guilty to or been convicted of, as the case may be, in the last three years, from the proposal submission date, the period of ineligibility for the issuance of a standing offer or for contract award is ten years from the date of determination by the Minister of PWGSC, subject to the Canadian Pardons and Foreign Pardons subsections.
- c. subject to an Administrative Agreement, for violations of matters referenced in the Lobbying Act subsection for which a Proponent or an Affiliate of the Proponent has been found

responsible, as the case may be, in the last three years, from the proposal submission date, the period of ineligibility for the issuance of a standing offer or for contract award is ten years from the date of determination by the Minister of PWGSC, subject to the Canadian Pardons and Foreign Pardons subsections.

12. Canadian Pardons

A determination of ineligibility for the issuance of a standing offer or for contract award will not be made or maintained by the Minister of PWGSC under these Integrity Provisions, in respect of an offence or act that gave rise or that could give rise to a determination of ineligibility, if the Proponent or its Affiliate has:

- a. been granted an absolute discharge in respect of the offence, or has been granted a conditional discharge in respect of the offence and those conditions have been satisfied;
- b. been granted a pardon under Her Majesty's royal prerogative of mercy;
- c. been granted a pardon under section 748 of the [Criminal Code](http://laws-lois.justice.gc.ca/eng/acts/C-46/) (<http://laws-lois.justice.gc.ca/eng/acts/C-46/>);
- d. received a record of suspension ordered under the [Criminal Records Act](http://laws-lois.justice.gc.ca/eng/acts/c-47/) (<http://laws-lois.justice.gc.ca/eng/acts/c-47/>); and
- e. been granted a pardon under the [Criminal Records Act](http://laws-lois.justice.gc.ca/eng/annualstatutes/2012_1/), as that Act read immediately before the day section 165 of the [Safe Streets and Communities Act](http://laws-lois.justice.gc.ca/eng/annualstatutes/2012_1/) (http://laws-lois.justice.gc.ca/eng/annualstatutes/2012_1/) comes into force.

13. Foreign Pardons

A determination of ineligibility for the issuance of a standing offer or for award of government contracts will not be made or maintained, as the case may be, by the Minister of PWGSC in respect of matters referenced in the Foreign Offences subsection and with respect to an offence or act that gave rise or will give rise to a determination of ineligibility, if the Proponent or its Affiliate, has at any time, benefited from foreign measures that are similar to Canadian pardons, conditional discharges, absolute discharges, record suspensions, or restoration of legal capacities by the Governor in Council.

14. Suspension of Period of Ineligibility

The Proponent confirms that it understands that a determination of ineligibility for the issuance of a standing offer or award of government contracts made under these Integrity Provisions may be suspended by the Minister of PWGSC through an Administrative Agreement, to the extent that it is permissible in law. The period of ineligibility applicable to that Proponent or its Affiliate and the right to participate in a given procurement process are guided by the terms and conditions of the Administrative Agreement. Subject to the Public Interest Exception, an Administrative Agreement may only suspend a period of ineligibility on solicitations issued after it has been concluded.

15. Period of Ineligibility for Providing False or Misleading Information

The Proponent confirms that it understands that where it has made a false declaration or provided false or misleading information under these Integrity Provisions, the Minister of PWGSC will declare a Proponent to be ineligible to be issued a standing offer or be awarded a contract for a period of ten years. The period of ineligibility is effective from the date of determination by the Minister of PWGSC.

16. Period of Ineligibility for Breaching Administrative Agreements

The Proponent confirms that it understands that where it has concluded an Administrative Agreement and that it has breached any of its terms and conditions, the Minister of PWGSC will lengthen the period of ineligibility for a period to be determined by the Minister of PWGSC.

17. Suspension of a Proponent

The Proponent confirms that it understands that the Minister of PWGSC may suspend a Proponent from being issued a standing offer or from being awarded a contract for a period of up to 18 months, subject to renewal, pending completion of the criminal proceeding, if the Proponent has been charged with any of the offences listed in the Canadian Offences Resulting in Legal

Incapacity, the Canadian Offences and the Foreign Offences subsections or if the Proponent has admitted to being guilty of any of these offences. The period of suspension is effective from the date of determination by the Minister of PWGSC. A period of suspension does not abridge or suspend all other periods of ineligibility that may be imposed on a Proponent by the Minister of PWGSC.

18. Third Party Validation

The Proponent confirms that it understands that where it or any of the Proponent's Affiliates has been subject to a period of ineligibility to be issued a standing offer or be awarded a contract, for which the Canadian Pardons and the Foreign Pardons subsections do not apply, the Proponent must provide by the Request for Standing Offers (RFSO) closing date, a confirmation from an independent third party, recognized in advance by the Minister of PWGSC, confirming that measures have been put in place in order to avoid the re-occurrence of such wrongdoings that led to the convictions. Failure to provide the said confirmation from an independent third party renders this proposal non-responsive.

19. Sub-consultants

The Proponent must ensure that subcontracts with first tier sub-consultants include Integrity Provisions similar to those imposed in the contract(s) resulting from the Standing Offer.

20. Public Interest Exception

The Proponent confirms that it understands:

- a. that, with the exception of a legal incapacity resulting from section 750(3) of the Criminal Code, Canada may issue a Standing Offer with a Proponent, or any of its Affiliates, which have been convicted of or have pleaded guilty to any of the offences referenced in the Canadian Offences and Foreign Offences subsections, where Canada considers it necessary to the public interest for reasons which include, but are not limited to:
 - i. the need is one of pressing emergency in which delay would be injurious to the public interest;
 - ii. the Proponent is the only person capable of performing the work;
 - iii. the standing offer is essential to maintain sufficient emergency stocks in order to safeguard against possible shortages; and;
 - iv. not issuing the Contract resulting from the Standing Offer would have a significant adverse impact on the health, national security, safety, security or economic or financial well-being of the people of Canada or the functioning of any portion of the federal public administration;
- b. Canada may only issue a standing offer with a Proponent under this subsection where the ineligible Proponent has concluded an Administrative Agreement with the Minister of PWGSC, on such terms and conditions that are necessary to safeguard the integrity of the procurement process and can apply to any procurement. The Administrative Agreement need not be concluded in advance of the solicitation.

GI 1 DEFINITION

In this Request for Standing Offers (RFSO), the following words or phrases have the corresponding meaning.

"Applicable Taxes":

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

"Consultant Team":

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

"Key Personnel":

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

"Price Rating":

A rating assigned to the price component of a proposal and subsequently used to establish a Price Score for inclusion as a percentage of the total score to be established following the evaluation and rating of technical proposals.

"Proponent":

"Proponent" means the person or entity (or, in the case of a joint venture, the persons or entities) submitting a proposal to provide services under a call-up resulting from a standing offer. It does not include the parent, subsidiaries or other affiliates of the Proponent, or its sub-consultants.

"PWGSC Evaluation Board":

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

"Technical Rating":

A rating assigned to the technical component of a proposal in the selection procedure and subsequently used to establish a Technical Score for inclusion as a percentage of the total score.

GI 2 INTRODUCTION

1. Public Works and Government Services Canada (PWGSC) is inviting experienced Architectural consulting firms with in-house resources and/or a team of sub-consultants which will include structural engineers, mechanical engineers, electrical engineers, IT/Telecommunications specialist, functional programmers, interior designers, specification writers, cost estimators, sustainable design specialists, heritage conservation specialist, and building envelope specialists to submit proposals for Standing Offers. The selected consultants shall provide a range of services as identified in the Required Services section of this document for projects in the Ontario Region.

The selected consultants shall provide a range of services including investigation and recommendations reports, functional programming, feasibility studies, and cost estimates. At times, the selected consultants may be required to provide full service for design, construction and supervision for small renovations, additions, and tenant fit-up work in Crown-owned buildings. At other times, a specific sub-consultant and/or specialist may be requested to provide a stand alone service such as functional programming, cost estimating or specification writing for a variety of projects. The services of other specific specialists, outside of the consultant team, may be required for some projects and will be identified at time of call-up. These range of services will generally cover, but will not be limited to the following types of projects:

- General purpose office space for defined user;
- Special purpose office space for high-security or high-technology users;
- Laboratory and other special purpose space for research and development activities;
- Museum and other cultural facilities;
- Warehouses, archives and storage structures;
- Detention facilities;
- Minimum, medium and maximum security correctional institutions;
- Evaluation of damaged structures;
- Building assessments reports;
- Roof investigation reports;
- Building envelope screening reports (heritage and non-heritage buildings);

-
- Space optimization analysis;
 - Feasibility studies;
 - Interior Fit-Ups; and
 - Compliance Review.
2. Proponents shall be licensed or eligible to be licensed to practice in the province of Ontario. Firms should be able to demonstrate successful delivery of these services for a broad variety of projects over the last seven (7) years. In general, the firm and its personnel will be evaluated on the basis of their demonstrated understanding of the scope of services, their approach and methodology to providing those services, the quality of their relevant experience in this area, as well as the cost of the provision of the services.
 3. For the purposes of this Request for Standing Offer (RFSO) the province of Ontario has been subdivided into four regions. It is PWGSC's intention to award up to four (4) Standing Offers for Central Ontario and South Western Ontario, up to three (3) for the Northern Ontario and up to five (5) Standing Offers for Eastern Ontario, each for a period of three (3) years from the date of issuance of the Standing Offers. The geographic boundaries for each of the identified regions is delineated in 'Appendix F - Ontario Region - Geographic Boundaries by County'. The total dollar value of all Standing Offers is estimated to be \$20,000,000.00 (HST Included). Individual call-ups will vary, up to a maximum of \$1,000,000.00 (HST included). Proponents should note that there is no guarantee that the full or any amount of the Standing Offers will be called-up; PWGSC will award call-ups only when the specific services to be provided under the Standing Offer are needed. Proponents should also note that Call-ups may vary from \$10,000.00 for smaller requirements up to the \$1,000,000.00 limitation under exceptional circumstances. Proponents may not refuse Call-ups based on dollar value. **If more than three (3) requests for services (Call-ups) are refused by the Consultant, Canada reserves the right to set-aside the Standing Offer.** Please refer to Section SP5, CALL-UP PROCEDURE.
 4. This procurement is subject to the provisions of the North American Free Trade Agreement (NAFTA), the World Trade Organization - Agreement on Government Procurement (WTO-AGP), the Canada-Colombia Free Trade Agreement (FTA) and the Canada-Peru FTA.

GI 3 PROCUREMENT BUSINESS NUMBER

Proponents are required to have a Procurement Business Number (PBN) before issuance of a standing offer. Proponents may register for a PBN on line at Supplier Registration Information (<https://srisupplier.contractsCanada.gc.ca/>). For non-Internet registration, proponents may contact the InfoLine at 1-800-811-1148 to obtain the telephone number of the nearest Supplier Registration Agent.

GI 4 CONTRACTING AUTHORITY AND DEPARTMENTAL REPRESENTATIVE

1. The Contracting Authority for this Request for Standing Offer is:

Dahlia Jackson
Public Works and Government Services Canada
Real Property Contracting
4900 Yonge Street, 12th Floor
Toronto, ON
M2N 6A6
Tel: (416) 512-5918
Fax: (416) 512-5652
E-mail address: dahlia.jackson@pwgsc-tpsgc.gc.ca

2. The Contracting Authority is responsible for the establishment of the Standing Offer, its administration, and any contractual issues relating to individual call-ups.

3. A Departmental Representative will be identified at time of each individual Call-Up.
4. The Departmental Representative will be responsible for all matters concerning the technical content of the work under the Call-Up.

GI 5 QUANTITY

The level of services and estimated expenditure specified in the Request for Standing Offer are only an approximation of requirements given in good faith. The making of a proposal by the Proponent shall not constitute an agreement by Canada. Canada may make one or several call-ups against a standing offer.

GI 6 PWGSC OBLIGATION

A Request for Standing Offer does not commit PWGSC to authorize the utilization of a standing offer or to pay any cost incurred in the submission of proposals, or cost incurred in making necessary studies for the preparation thereof, or to procure or contract for any services. PWGSC reserves the right to reject or authorize for utilization any proposal in whole or in part, with or without further discussion or negotiation. Canada reserves the right to cancel or amend the Request for Standing Offer at any time.

GI 7 RESPONSIVE PROPOSALS

To be considered responsive, a proposal must meet all of the mandatory requirements set out in the Request for Standing Offer. No further consideration in the selection procedure will be given to a Proponent submitting a non-responsive proposal. Proponents that submitted non-responsive proposals are notified accordingly.

GI 8 COMMUNICATIONS - SOLICITATION PERIOD

1. Questions or requests for clarification during the solicitation period must be submitted in writing to the Contracting Authority named on the Request for Standing Offer - 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 Standing Offer** Enquiries received after that time may not be answered.
2. To ensure the integrity of the competitive bid process, enquiries and other communications regarding the RFSO must be directed only to the Contracting Authority identified in the RFSO. Failure to comply with this requirement may result in the proposal being declared non-responsive.
3. To ensure consistency and quality of information provided to proponents, significant enquiries received and their replies will be posted on the Government Electronic Tendering Service (GETS).

GI 9 OVERVIEW OF SELECTION PROCESS

1. The Standing Offer selection process is as follows:
 - a) a Request for Standing Offer is obtained by proponents through the through the Government Electronic Tendering Service (GETS);
 - b) in response to the Request for Standing Offer, interested proponents shall submit their proposals using a "two-envelope" procedure, in which proponents submit the "technical" component of their proposal in one envelope and the proposed price of the services (price proposal) in a second envelope as further described in GI 10.3 below;
 - c) responsive proposals are reviewed, evaluated and rated by a PWGSC Evaluation Board in

- accordance with the criteria, components and weight factors set out in the Request for Standing Offer;
- d) PWGSC may issue a standing offer to the successful proponents;
 - e) Proponents are notified of the results within one week after PWGSC has entered into a standing offer arrangement with the successful proponents.

GI 10 SUBMISSION OF PROPOSAL

1. Canada requires that each proposal, at closing date and time or upon request from the Contracting Authority, be signed by the Proponent or by an authorized representative of the Proponent. If a proposal is submitted by a joint venture, it must be in accordance with section GI18.
2. It is the Proponent's responsibility to:
 - a) obtain clarification of the requirements contained in the Request for Standing Offer, if necessary, before submitting a proposal;
 - b) submit an original of the proposal plus the specified number of copies, duly completed, IN THE FORMAT REQUESTED, on or before the closing date and time set for receipt of proposals;
 - c) send its proposal only to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit specified on page 1 of the Request for Standing Offer or to the address specified in the Request for Standing Offer;
 - d) ensure that the Proponent's name, return address, the solicitation number and description, and solicitation closing date and time are clearly visible on the envelope or the parcel(s) containing the proposal; and
 - e) provide a comprehensive and sufficiently detailed proposal that will permit a complete evaluation in accordance with the criteria set out in the Request for Standing Offer.
3. The technical and price components of the proposal must be submitted in separate, easily identified envelopes in accordance with the instructions contained in the proposal document. Both envelopes shall be submitted as one package which shall clearly and conspicuously display and indicate on the outside of the package the information identified in paragraph 2. d) above.
4. Timely and correct delivery of proposals to the office designated for receipt of proposals is the sole responsibility of the Proponent. Public Works and Government Services Canada will not assume or have transferred to it those responsibilities. All risks and consequences of incorrect delivery of proposals are the responsibility of the Proponent.
5. The evaluation of proposals may result in authorization to utilize one or more Standing Offers in whole or in part, taking into consideration the evaluation criteria and selection method stated herein. The lowest or any proposal will not necessarily be authorized. In case of error in the calculation of prices, the unit prices will govern.
6. The proposal should completely and thoroughly address each element of the requirements as enumerated in the Request for Standing Offer. It is also essential that the elements contained in the proposal be stated in a clear and concise manner.
7. Proposal documents and supporting information may be submitted in either English or French.
8. Canada will make available Notices of Proposed Procurement (NPP), RFSOs and related documents for download through the Government Electronic Tendering Service (GETS). Canada is

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

GI 11 NON-ACCEPTANCE OF ELECTRONICALLY TRANSMITTED PROPOSALS

Due to the nature of this solicitation, a complete technical proposal, as well as a cost of services proposal (submitted under separate cover), with supporting information is required to allow a proper evaluation to be conducted. Electronic transmission of the proposal by such means as electronic mail or facsimile is not considered to be practical, and therefore, will not be accepted.

GI 12 EVALUATION OF PRICE

The price proposal must be submitted in Canadian dollars and will be evaluated excluding Applicable Taxes.

GI 13 LIMITATION OF SUBMISSIONS

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

GI 14 LICENSING REQUIREMENTS

1. Consultant team members and key personnel shall be, or be eligible to be licensed, certified or otherwise authorized to provide the necessary professional services to the full extent that may be required by provincial law in the province of the work.
2. By virtue of submission of a proposal, the Proponent certifies that the Proponent's consultant team and key personnel are in compliance with the requirements of paragraph 1 above. The Proponent acknowledges that PWGSC reserves the right to verify any information in this regard and that false or erroneous certification may result in the proposal being declared non-responsive.

GI 15 REJECTION OF PROPOSAL

1. Canada may reject a proposal where any of the following circumstances is present:
 - (a) the Proponent has been declared ineligible for selection, following unsatisfactory performance in a previous project as determined in accordance with the department's performance review procedures;
 - (b) an employee, sub-consultant or specialist consultant included as part of the proposal has been declared ineligible, for selection for work with the department in accordance with the performance review procedure referred to in paragraph 1.(a), which would render the employee, sub-consultant or specialist consultant ineligible to bid on the requirement, or the portion of the requirement the employee, sub-consultant or specialist consultant is to perform;
 - (c) the Proponent is bankrupt or where, for whatever reason, its activities are rendered inoperable for an extended period;
 - (d) evidence, satisfactory to Canada, of fraud, bribery, fraudulent misrepresentation or failure to comply with any law protecting individuals against any manner of discrimination, has been received with respect to the Proponent, any of its employees, any sub-consultant or any specialist consultant included as part of the proposal;
 - (e) evidence satisfactory to Canada that based on past conduct or behavior, the Proponent, a sub-consultant, a specialist consultant or a person who is to perform the Services is unsuitable or has conducted himself/herself improperly;
 - (f) with respect to current or prior transactions with the Government of Canada,
 - (i) Canada has exercised its contractual remedies of taking the services out of the consultant's hands, suspension or termination for default with respect to a contract with the Proponent, any of its employees, any sub-consultant or any specialist consultant included as part of the proposal;
 - (ii) Canada determines that the Proponent's performance on other contracts, including the quality of the services provided and the quality and timeliness of the delivery of the project, is sufficiently poor to jeopardize the successful completion of the requirement being bid on.
2. Where Canada intends to reject a proposal pursuant to subsection 1.(f), the Contracting Authority will so inform the Proponent and provide the Proponent ten (10) days within which to make representations, before making a final decision on the proposal rejection.

GI 16 NOT APPLICABLE

GI 17 INSURANCE REQUIREMENTS

1. The successful Proponent shall be required to obtain and maintain Professional Liability and Comprehensive General insurance coverage in accordance with the requirements set out elsewhere in the Request for Standing Offer documents.
2. No insurance requirement stipulated in the Request for Standing Offer documents should be construed as limiting any insurance required by federal, provincial or municipal law. Neither should it limit any coverage which the successful Proponent and other members of the consultant team may consider to be necessary for their own protection or to fulfill their obligations.
3. By virtue of submission of a proposal, the Proponent certifies that the Proponent and the other members of the consultant team as may be applicable are capable of obtaining, and will obtain and maintain liability insurance in accordance with the requirements set out in the proposal documents.

GI 18 JOINT VENTURE

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

GI 19 LATE SUBMISSIONS

Submissions delivered after the stipulated closing date and time will be returned unopened.

GI 20 LEGAL CAPACITY

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

GI 21 DEBRIEFING

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

GI 22 FINANCIAL CAPABILITY

1. Financial Capability Requirement: The Proponent must have the financial capability to fulfill this requirement. To determine the Proponent's financial capability, the Contracting Authority may, by written notice to the Proponent, require the submission of some or all of the financial information detailed below during the evaluation of proposals. The Proponent must provide the following information to the Contracting Authority within fifteen (15) working days of the request or as specified by the Contracting Authority in the notice:
 - (a) Audited financial statements, if available, or the unaudited financial statements (prepared by the Proponent's outside accounting firm, if available, or prepared in-house if no external statements

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- have been prepared) for the Proponent's last three fiscal years, or for the years that the Proponent has been in business if this is less than three years (including, as a minimum, the Balance Sheet, the Statement of Retained Earnings, the Income Statement and any notes to the statements).
- (b) If the date of the financial statements in (a) above is more than five months before the date of the request for information by the Contracting Authority, the Proponent must also provide, unless this is prohibited by legislation for public companies, the last quarterly financial statements (consisting of a Balance Sheet and a year-to-date Income Statement), as of two months before the date on which the Contracting Authority requests this information.
- (c) If the Proponent has not been in business for at least one full fiscal year, the following must be provided:
- (i) the opening Balance Sheet on commencement of business (in the case of a corporation, the date of incorporation); and
- (ii) the last quarterly financial statements (consisting of a Balance Sheet and a year-to-date Income Statement) as of two months before the date on which the Contracting Authority requests this information.
- (d) A certification from the Chief Financial Officer or an authorized signing officer of the Proponent that the financial information provided is complete and accurate.
- (e) A confirmation letter from all of the financial institution(s) that have provided short-term financing to the Proponent outlining the total of lines of credit granted to the Proponent and the amount of credit that remains available and not drawn upon as of one month prior to the date on which the Contracting Authority requests this information.
2. If the Proponent is a joint venture, the financial information required by the Contracting Authority must be provided by each member of the joint venture.
3. If the Proponent is a subsidiary of another company, then any financial information in 1. (a) to (e) above required by the Contracting Authority must be provided by the ultimate parent company. Provision of parent company financial information does not by itself satisfy the requirement for the provision of the financial information of the Proponent, and the financial capability of a parent cannot be substituted for the financial capability of the Proponent itself unless an agreement by the parent company to sign a Parental Guarantee, as drawn up by Public Works and Government Services Canada (PWGSC), is provided with the required information.
4. Financial Information Already Provided to PWGSC: The Proponent is not required to resubmit any financial information requested by the Contracting Authority that is already on file at PWGSC with the Contract Cost Analysis, Audit and Policy Directorate of the Policy, Risk, Integrity and Strategic Management Sector, provided that within the above-noted time frame:
- (a) the Proponent identifies to the Contracting Authority in writing the specific information that is on file and the requirement for which this information was provided; and
- (b) the Proponent authorizes the use of the information for this requirement.
- It is the Proponent's responsibility to confirm with the Contracting Authority that this information is still on file with PWGSC.
5. Other Information: Canada reserves the right to request from the Proponent any other information that Canada requires to conduct a complete financial capability assessment of the Proponent.
6. Confidentiality: If the Proponent provides the information required above to Canada in confidence

while indicating that the disclosed information is confidential, then Canada will treat the information in a confidential manner as permitted by the Access to Information Act, R.S., 1985, c. A-1, Section 20(1) (b) and (c).

7. Security: In determining the Proponent's financial capability to fulfill this requirement, Canada may consider any security the Proponent is capable of providing, at the Proponent's sole expense (for example, an irrevocable letter of credit from a registered financial institution drawn in favour of Canada, a performance guarantee from a third party or some other form of security, as determined by Canada).
8. In the event that a proposal is found to be non-compliant on the basis that the Proponent is considered NOT to be financially capable of performing the subject requirement, official notification shall be provided to the Proponent.

GI 23 REVISION OF PROPOSAL

A proposal submitted may be amended by letter or facsimile provided the revision is received at the office designated for the receipt of proposals, on or before the date and time set for the receipt of proposals. The revision must be on the Proponent's letterhead or bear a signature that identifies the Proponent, and must clearly identify the change(s) to be applied to the original proposal. The revision must also include the information identified in GI 10 2. d).

GI 24 PERFORMANCE EVALUATION

Proponents shall take note that the performance of the Consultant during and upon completion of the services shall be evaluated by Canada. The evaluation includes all or some of the following criteria: Design, Quality of Results, Management, Time and Cost. Should the Consultant's performance be considered unsatisfactory, the Consultant may be declared ineligible for future contracts. The form PWGSC-TPSGC 2913-1, SELECT - Consultant Performance Evaluation Report (<http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/documents/2913-1.pdf>), is used to record the performance.

GI 25 PROPOSAL COSTS

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

GI 26 CONFLICT OF INTEREST - UNFAIR ADVANTAGE

1. In order to protect the integrity of the procurement process, proponents are advised that Canada may reject a proposal in the following circumstances:
 - (a) if the Proponent, any of its sub-consultants, any of their respective employees or former employees was involved in any manner in the preparation of the bid solicitation or in any situation of conflict of interest or appearance of conflict of interest;
 - (b) if the Proponent, any of its sub-consultants, any of their respective employees or former employees had access to information related to the bid solicitation that was not available to other proponents and that would, in Canada's opinion, give or appear to give the Proponent an unfair advantage.
2. The experience acquired by a Proponent who is providing or has provided the goods and services described in the bid solicitation (or similar goods or services) will not, in itself, be considered by Canada as conferring an unfair advantage or creating a conflict of interest. This Proponent remains however subject to the criteria established above.

3. Where Canada intends to reject a proposal under this section, the Contracting Authority will inform the Proponent and provide the Proponent an opportunity to make representations before making a final decision. Proponents who are in doubt about a particular situation should contact the Contracting Authority before bid closing. By submitting a proposal, the Proponent represents that it does not consider itself to be in conflict of interest nor to have an unfair advantage. The Proponent acknowledges that it is within Canada's sole discretion to determine whether a conflict of interest, unfair advantage or an appearance of conflict of interest or unfair advantage exists.

GI 27 LIMITATION OF LIABILITY

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

GI 28 STATUS AND AVAILABILITY OF RESOURCES

The Proponent certifies that, should it be issued a standing offer as a result of the Request for Standing Offer, every individual proposed in its proposal will be available to perform the Services resulting from a call-up against the Standing Offer as required by Canada's representatives and at the time specified in a call-up or agreed to with Canada's representatives. If the Proponent is unable to provide the services of an individual named in its proposal, the Proponent may propose a substitute with at least equivalent qualifications, experience and expertise. The Proponent must advise the Contracting Authority of the reason for the substitution and provide the name, demonstrate equivalency of qualifications, experience and expertise of the proposed replacement for Canada's approval at its sole discretion.

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Solicitation No. - N° de l'invitation
EQ754-161519/A

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
PWL027

Client Ref. No. - N° de réf. du client
EQ754-161519

File No. - N° du dossier
PWL-5-38131

CCC No./N° CCC - FMS No./N° VME

STANDING OFFER PARTICULARS (SP)

- SP 1 General
- SP 2 Withdrawal/Revision
- SP 3 Period of the Standing Offer
- SP 4 Call-Up Limitation
- SP 5 Call-Up Procedure
- SP 6 Invoicing

STANDING OFFER PARTICULARS

SP 1 GENERAL

1. The Consultant acknowledges that a standing offer is not a contract and that the issuance of a Standing Offer and Call-up Authority does not oblige or commit Canada to procure or contract for any services listed in the Standing Offer.
2. The Consultant offers to provide and deliver to Canada the services described in the Standing Offer, in accordance with the pricing set out in the Standing Offer if, and when the Contracting Authority may request such services, in accordance with the conditions listed at subsection 3 below.
3. The Consultant understands and agrees that:
 - a) a call-up against the Standing Offer will form a contract only for those services which have been called-up, provided that such call-up is made in accordance with the provisions of the Standing Offer;
 - b) Canada's liability is limited to that which arises from call-ups against the Standing Offer made within the period specified in the Standing Offer;
 - c) Canada has the right to procure the services specified in the Standing Offer by means of any other contract, standing offer or contracting method;
 - d) the Standing Offer cannot be assigned or transferred in whole or in part;
 - e) the Standing Offer may be set aside by Canada at any time.
 - f) **if more than three (3) requests for services (Call-ups) are refused by the Consultant, Canada reserves the right to set-aside the Standing Offer.**

SP 2 WITHDRAWAL/REVISION

In the event that the Consultant wishes to withdraw the Standing Offer after authority to call-up against the Standing Offer has been given, the Consultant must provide no less than thirty (30) days' written notice to the Contracting Authority, unless specified otherwise in the Standing Offer. The thirty (30) days' period will start upon receipt of the notification by the Contracting Authority and the withdrawal will be effective at the expiry of that period. The Consultant must fulfill any and all call-ups which are made before the expiry of that period.

The period of the Standing Offer may only be extended, or its usage increased, by the Contracting Authority issuing a revision to the Standing Offer in writing.

SP 3 PERIOD OF THE STANDING OFFER

The period for placing call-ups against the Standing Offer shall be for three (3) years commencing from the start date identified on the Standing Offer.

SP 4 CALL-UP LIMITATION

Each call-up against the Standing Offer will have a maximum limitation of expenditure of \$1,000,000.00 (HST included). The call-up limitation includes fees and all related disbursements.

SP 5 CALL-UP PROCEDURE

1. Services will be called-up as follows:

- a) The Departmental Representative will establish the scope of services to be performed. For each individual Call-Up, consultants will be considered using a computerized distribution system. For Central Ontario and South Western Ontario, the system will contain for each consultant an ideal business distribution percentage which has been established as follows; 36% of the business for the top ranked consultant, 28% for the 2nd ranked consultant, 21% for the 3rd ranked consultant and 15% for the 4th. For Northern Ontario, the system will contain for each consultant an ideal business distribution percentage which has been established as follows; 43% of the business for the top ranked consultant, 32% for the 2nd ranked consultant and 25% for the 3rd ranked consultant. For Eastern Ontario, the system will contain for each consultant an ideal business distribution percentage which has been established as follows; 34% of the business for the top ranked consultant, 24% for the 2nd ranked consultant, 19% for the 3rd ranked consultant, 14% for the 4th ranked consultant, and 9% for the 5th. In the event fewer than four (4) consultants for the Central Ontario and South Western Ontario regions, fewer than three (3) consultants for the Northern Ontario region and fewer than five (5) for the Eastern Ontario region are successful, the undistributed % of business will be redistributed amongst the offerors being recommended using the following formula:

$$\text{Revised Distributions \%} = \frac{\text{pre-established \%}}{100 \text{ less the non distributed \%}} \times 100$$

The Consultant who is furthest under their respective ideal business distribution percentage in relation to the other consultants will be selected for the next call-up.

- b) Unless otherwise stated by the Departmental Representative, the Consultant is required to respond within five (5) working days in writing to the Departmental Representative to confirm acceptance or refusal of the Call-Up. Failure to respond within the five (5) working day deadline will constitute the Consultant's declination to the Call-up.

If accepted, the Consultant will be provided the scope of services and given a reasonable deadline for submission of a proposal. The proposal submission deadline will be established by the Departmental Representative and will be based on the size and complexity of project.

Should the Consultant fail to meet the response or proposal submission deadline, Canada reserves the right not to further consider the Consultant for the call-up, and select the next consultant who is furthest away from the ideal business distribution.

- c) The Consultant will be provided the scope of services and will submit a proposal to the Departmental Representative in accordance with the fixed hourly rates established under the Standing Offer. The Consultant's proposal shall include the category of personnel, name of personnel and the number of hours estimated/required to perform the services, as well as an estimate of proposed disbursements, if applicable. If the Consultant is unable to provide the services of an individual named in its proposal (submitted in response to the Request for Standing Offer), the Consultant may propose a substitute with at least the equivalent qualification, experience and expertise in the estimation of Canada. The Consultant must advise the Contracting Authority of the reason for the substitution and provide the name, qualifications and experience of the proposed replacement for Canada's approval in its sole discretion. If the Consultant is unable to provide a substitute with equivalent qualifications, experience and expertise, Canada may set aside the standing offer.
- d) For services from a Specialist Consultant that is not named or for which discipline is not identified in the Standing Offer, the Consultant's proposal shall include the category and name of personnel as well as their hourly rate(s) with the number of hours estimated/required by the Specialist Consultant to perform these services. A fixed fee or, where it is not possible

or appropriate to agree upon a fixed fee, a time based fee to an upset limit will be established.

- e) For the preparation of bilingual documents, the Consultant shall estimate the required number of hours and multiply by the hourly rates established in the Standing Offer. If the services of a translation firm are required to produce bilingual documents, these costs shall be treated as a disbursement.
 - f) A fixed fee or, where it is not possible or appropriate to agree upon a fixed fee, a time based fee to an upset limit will be established in accordance with the hourly rate(s) established in the Standing Offer.
 - g) Standing Offer holders not possessing the required security clearance at time of Call-up, will be bypassed and PWGSC will proceed to the next consultant who possesses the required security clearance and it is furthest away from the ideal business distribution.
2. The Consultant will be authorized in writing by the Contracting Authority to proceed with the services by issuance of a Call-up against the Standing Offer.
3. Any proposed changes to the scope of work are to be discussed with the Departmental Representative but any resulting changes can only be authorized by an amendment issued by the Contracting Authority.

SP 6 INVOICING

1. For prompt processing of invoices, include the following information on each invoice for payment:
- a) PWGSC project number;
 - b) Invoicing period with dates;
 - c) Work done to justify invoice (short narrative) for services provided
 - d) Summary of costs as follows:

Amount this invoice	(1)	Fees + Applicable Taxes = Total
Total previous invoices	(2)	Fees + Applicable Taxes = Total
Total invoiced to date	(1+2) =(3)	Fees + Applicable Taxes = Total
Agreed fees	(4)	Fees + Applicable Taxes = Total
Amount to complete	(4-3) =(5)	Fees + Applicable Taxes = Total
% Services completed this stage	(6)	
 - e) Authorized signatures of the Consultant and the date.
2. Include with each invoice for authorized disbursements, receipt of original invoices (or legible copies if originals cannot be supplied) for all items claimed.

Solicitation No. - N° de l'invitation
EQ754-161519/A

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
PWL027

Client Ref. No. - N° de réf. du client
EQ754-161519

File No. - N° du dossier
PWL-5-38131

CCC No./N° CCC - FMS No./N° VME

TERMS AND CONDITIONS

0220DA General Conditions (GC)
0000DA Supplementary Conditions (SC)
9998DA Terms of Payment (TP)
9999DA Consultant Services (CS)
2000DA Calculation of Fees (CF)

Solicitation No. - N° de l'invitation
EQ754-161519/A

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CCC No./N° CCC - FMS No./N° VME

0220DA GENERAL CONDITIONS

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- GC 2 Interpretations
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- GC 9 Taking the Services Out of the Consultant's Hands
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GC 1 Definitions

Administrative Agreement

is a negotiated agreement with the Minister of PWGS as provided for in the *Ineligibility and Suspension Policy* (<http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-fra.html>).

Affiliate

is a person, including, but not limited to, organizations, bodies corporate, societies, companies, firms, partnerships, associations of persons, parent companies or subsidiaries, whether partly or wholly-owned, as well as individuals, directors, officers and key employees if:

- i. one controls or has the power to control the other, or
- ii. a third party has the power to control both.

Applicable Taxes means the Goods and Services Tax (GST), the Harmonized Sales Tax (HST), and any provincial tax, by law, payable by *Canada* such as, the Quebec Sales Tax (QST) as of April 1, 2013;

Average Bank Rate means the simple arithmetic mean of the *Bank Rate* in effect at 4:00 p.m. Eastern Time each day during the calendar month which immediately precedes the calendar month in which payment is made;

Bank Rate means the rate of interest established from time to time by the Bank of Canada as the minimum rate at which it makes short term advances to members of the Canadian Payments Association;

Canada, Crown, Her Majesty or the Government means Her Majesty the Queen in right of Canada as represented by the Minister of Public Works and Government Services and any other person duly authorized to act on behalf of that minister or, if applicable, an appropriate minister to whom the Minister of Public Works and Government Services has delegated his or her powers, duties or functions and any other person duly authorized to act on behalf of that minister;

Construction Contract means a contract entered into between *Canada* and a *Contractor* for the construction of the Project;

Construction Contract Award Price means the price at which a *Construction Contract* is awarded to a *Contractor*;

Construction Cost Estimate means an anticipated amount for which a *Contractor* will execute the construction of the Project;

Construction Cost Limit means that portion of the total amount of Project funds which shall not be exceeded on construction of the Project;

Consultant means the party identified in the Standing Offer to perform the *Consultant Services* under the Standing Offer and any subsequent Call-up, and includes the officer or employee of the *Consultant* identified in writing by the *Consultant*;

Contracting Authority means the party identified on the front cover page, responsible for the establishment of the Standing Offer, its amendments, administration, and any contractual issues relating to individual call-ups;

Contractor means a person, firm or corporation with whom *Canada* enters, or intends to enter, into a *Construction Contract*;

Contract Price means the amount stated in the Call-Up to be payable to the *Consultant* for the *Services*, exclusive of *Applicable Taxes*;

Control means:

- a. direct control, such as where:
 - i. a person controls a body corporate if securities of the body corporate to which are attached more than 50 percent of the votes that may be cast to elect directors of the body corporate are beneficially owned by the person and the votes attached to those securities are sufficient, if exercised, to elect a majority of the directors of the body corporate;
 - ii. a person controls a corporation that is organized on a cooperative basis if the person and all of the entities controlled by the person have the right to exercise more than 50 percent of the votes that may be cast at an annual meeting or to elect the majority of the directors of the corporation;
 - iii. a person controls an unincorporated entity, other than a limited partnership, if more than 50 percent of the ownership interests, however designated, into which the entity is divided are beneficially owned by that person and the person is able to direct the business and affairs of the entity;
 - iv. the general partner of a limited partnership controls the limited partnership; and
 - v. a person controls an entity if the person has any direct or indirect influence that, if exercised, would result in control in fact of the entity.
- b. deemed control, such as where:
a person who controls an entity is deemed to control any entity that is controlled, or deemed to be controlled, by the entity
- c. indirect control, such as where:
a person is deemed to control, within the meaning of paragraph (a) or (b), an entity where the aggregate of:
 - i. any securities of the entity that are beneficially owned by that person, and
 - ii. any securities of the entity that are beneficially owned by any entity controlled by that person is such that, if that person and all of the entities referred to in paragraph (c)(ii) that beneficially own securities of the entity were one person, that person would control the entity.

Cost Plan means the allocation of proposed costs among the various elements of the Project, as described in the *Project Brief or Terms of Reference*;

Days means continuous calendar days, including weekends and statutory public holidays;

"Departmental Representative" means the officer or employee of Canada identified to the consultant in writing by a duly authorized departmental officer to perform the Departmental Representative's duties under the Agreement;

Experience means accumulated, over an extended period of time, involvement in a specific type of technical/managerial activity.

Expertise means the sum of knowledge, skills, know-how, proficiency and capability possessed by an expert in a particular technical/managerial field and/or speciality.

Ineligibility means a person not eligible to contract with Canada;

Mediation is a process of dispute resolution in which a neutral third party assists the parties involved in a dispute to negotiate their own settlement;

Project Brief or Terms of Reference means a document describing in sufficient detail the *Services* to be provided by the *Consultant* to permit the *Consultant* to proceed with the *Services* and may include general

project information, scope of the work, site and design data, and time plan, specifically related to the Project;

Project Schedule means a time plan, including the sequence of tasks, milestone dates and critical dates which must be met for the implementation of the planning, design and construction phases of the Project;

Services means the Services provided by the *Consultant* and the Services required for the project as set forth in the Standing Offer and subsequent Call-up documents;

Specialist Consultant means any Architect, Professional Engineer, or other specialist, other than the *Consultant*, engaged by *Canada* directly or, at the specific request of *Canada*, engaged by the *Consultant*;

Sub-Consultant means any Architect, Professional Engineer, or other specialist engaged by the *Consultant* for the *Services* included in the Standing Offer or any subsequent Call-up;

Suspension means a determination of temporary ineligibility by the Minister of PWGS;

Technical Documentation includes designs, reports, photographs, physical models, surveys, drawings, specifications, computer software developed for the purpose of the Project, computer printouts, design notes, calculations, CADD (Computer-aided Design and Drafting) files, and other data, information and material, prepared, computed, drawn, or produced and operating and maintenance manuals either prepared or collected for the Project.

Total Estimated Cost, Revised Estimated Cost, Increase (Decrease) on Page 1 of the Contract or Contract Amendment means an amount used for internal administrative purposes only that comprises the *Contract Price*, or the revised *Contract Price*, or the amount that would increase or decrease the *Contract Price* and the *Applicable Taxes* as evaluated by the *Contracting Authority*, and does not constitute tax advice on the part of *Canada*.

GC 2 Interpretations

1. Words importing the singular only also include the plural, and vice versa, where the context requires;
2. Headings or notes in the Standing Offer shall not be deemed to be part thereof, or be taken into consideration in its interpretation;
3. "Herein", "hereby", "hereof", "hereunder" and similar expressions refer to the Standing Offer as a whole and not to any particular subdivision or part thereof.

GC 3 Not Applicable

GC 4 Assignment

1. The Call-Up shall not be assigned, in whole or in part, by the *Consultant* without the prior consent of *Canada*.
2. An assignment of the Call-Up without such consent shall not relieve the *Consultant* or the assignee from any obligation under the Call-up, or impose any liability upon *Canada*.

GC 5 Indemnification

1. The *Consultant* shall indemnify and save harmless *Canada*, its employees and agents, from losses arising out of the errors, omissions or negligent acts of the *Consultant*, its employees and agents, in the performance of the *Services* under the Call-up that may result from the Standing Offer.
2. The *Consultant's* liability to indemnify or reimburse *Canada* under the Standing Offer shall not

affect or prejudice *Canada* from exercising any other rights under law.

GC 6 Notices

1. Any notice, request, direction, consent, decision, or other communication that is required to be given or made by either party pursuant to the Standing Offer, shall be in writing, and shall be deemed to have been effectively given when:
 - (a) served personally, on the day it is delivered;
 - (b) forwarded by registered mail, on the day the postal receipt is acknowledged by the other party; or
 - (c) forwarded by facsimile or other electronic means of transmission, one working day after it was transmitted.
2. The address of either party, or the person authorized to receive notices, may be changed by notice in the manner set out in this provision.

GC 7 Suspension

1. The *Departmental Representative* may require the *Consultant* to suspend the *Services* being provided, or any part thereof, for a specified or unspecified period.
2. If a period of suspension does not exceed sixty (60) *days* and when taken together with other periods of suspension does not exceed ninety (90) *days*, the *Consultant* will, upon the expiration of that period, resume the performance of the *Services* in accordance with the terms of the Standing Offer and the relevant Call-up, subject to any agreed adjustment of the time schedule as referred to in CS 3 of clause 9999DA, *Consultant Services*.
3. If a period of suspension exceeds sixty (60) *days* or when taken together with other periods of suspension, the total exceeds ninety (90) *days*, and:
 - (a) the *Departmental Representative* and the *Consultant* agree that the performance of the *Services* shall be continued, then the *Consultant* shall resume performance of the *Services*, subject to any terms and conditions agreed upon by the *Departmental Representative* and the *Consultant*, or
 - (b) the *Departmental Representative* and the *Consultant* do not agree that the performance of the *Services* shall be continued, then the Call-Up shall be terminated by notice given by *Canada* to the *Consultant*, in accordance with the terms of GC 8.
4. Suspension costs related to this clause are as outlined in TP 8 of clause 9998DA, *Terms of Payment*.

GC 8 Termination

Canada may terminate any Call-up at any time in its sole discretion, and the fees paid to the *Consultant* will be in accordance with the relevant provisions in TP 9 of clause 9998DA, *Terms of Payment*.

GC 9 Taking the *Services* Out of the *Consultant's* Hands

1. *Canada* may take all or any part of the *Services* out of the *Consultant's* hands and may employ reasonable means necessary to complete such *Services* in the event that:
 - (a) The *Consultant* has become insolvent or has committed an act of bankruptcy, and

has neither made a proposal to the *Consultant's* creditors nor filed a notice of intention to make such a proposal, pursuant to the *Bankruptcy and Insolvency Act*, or

(b) the *Consultant* fails to perform any of the *Consultant's* obligations under the Standing Offer or any of the Call-ups or, in Canada's opinion, so fails to make progress as to endanger performance of the Standing Offer or any of its call-ups, in accordance with its terms.

2. If the *Consultant* has become insolvent or has committed an act of bankruptcy, and has either made a proposal to the *Consultant's* creditors or filed a notice of intention to make such a proposal, pursuant to the *Bankruptcy and Insolvency Act*, the *Consultant* shall immediately forward a copy of the proposal or the notice of intention to the *Contracting Authority*.
3. Before the *Services* or any part thereof are taken out of the *Consultant's* hands under GC 9.1(b), the *Departmental Representative* will provide notice to the *Consultant*, and may require such failure of performance or progress to be corrected. If within fourteen (14) days after receipt of notice the default is not corrected or corrective action is not initiated to correct such fault, Canada may, by notice, without limiting any other right or remedy, take all or any part of the *Services* out of the *Consultant's* hands.
4. If the *Services* or any part thereof have been taken out of the *Consultant's* hands, the *Consultant* will be liable for, and upon demand pay to *Canada*, an amount equal to all loss and damage suffered by *Canada* by reason of the non-completion of the *Services* by the *Consultant*.
5. If the *Consultant* fails to pay on demand for the loss or damage as a result of GC 9.4, *Canada* will be entitled to deduct and withhold the same from any payments due and payable to the *Consultant*.
6. If the *Services* or any part thereof are taken out of the *Consultant's* hands as a result of GC 9.1(b) and GC 9.3, the amount referred to in GC 9.5 shall remain in the Consolidated Revenue Fund until an agreement is reached or a decision of a court or tribunal is rendered. At that time the amount, or any part of it, which may become payable to the *Consultant* shall be paid together with interest from the due date referred to in TP 2 of clause 9998DA, Terms of Payment, and in accordance with the terms of the Standing Offer.
7. The taking of the *Services*, or any part thereof, out of the *Consultant's* hands does not relieve or discharge the *Consultant* from any obligation under the Standing Offer, the Call-up, or imposed upon the *Consultant* by law, in respect to the *Services* or any part thereof that the *Consultant* has performed.

GC 10 Time and Cost Records to be Kept by the Consultant

1. Time charged and the accuracy of the *Consultant's* time recording system may be verified by the *Departmental Representative* before or after payment is made to the *Consultant* under the terms and conditions of the Call-up.
2. The *Consultant* shall keep accurate time and cost records and, if required for the purposes of the Standing Offer, shall make these documents available to the *Departmental Representative* who may make copies and take extracts therefrom.
3. The *Consultant* shall afford facilities for audit and inspection upon request and shall provide the *Departmental Representative* with such information as may be required from time to time with reference to the documents referred to in GC 10.2.
4. The *Consultant* shall, unless otherwise specified, keep the time sheets and cost records available for audit and inspection for a period of at least six (6) years following completion of the *Services*.

5. If the verification is done after payment by Canada, the *Consultant* agrees to repay any overpayment immediately upon demand.

GC 11 National or Departmental Security

1. If the *Departmental Representative* is of the opinion that the Project is of a class or kind that involves national or departmental security, the *Consultant* may be required:
- (a) to provide any information concerning persons employed for purposes of the Standing Offer unless prohibited by law;
 - (b) to remove any person from the Project and its site if that person cannot meet the prescribed security requirements; and
 - (c) to retain the Project *Technical Documentation* while in the *Consultant's* possession in a manner specified by the *Departmental Representative*.
2. Notwithstanding the provisions of GC 12, if the Project is of a class or kind that involves national or departmental security, the *Consultant* shall not issue, disclose, discard or use the Project *Technical Documentation* on another project without the written consent of the *Departmental Representative*.

GC 12 Rights to Intellectual Property

1. Definitions

"Background" means all Technical Output that is not Foreground and that is proprietary to or the confidential information of the *Consultant*, the *Consultant's Sub-Consultants*, or any other entity engaged by the *Consultant* in the performance of the *Services*;

"Foreground" means any Invention first conceived, developed or reduced to practice as part of the *Services* and all other Technical Output conceived, developed, produced or implemented as part of the *Services*;

"IP Rights" means any intellectual property rights recognized by law, including any intellectual property right protected through legislation (such as that governing copyright, patents, industrial design, or integrated circuit topography) or arising from protection of information as a trade secret or as confidential information;

"Invention" means any new and useful art, process, machine, manufacture or composition of matter, or any new and useful improvement in any art, process, machine, manufacture or composition of matter, whether or not patentable and without limiting the foregoing the term includes any unique design and construction system;

"Technical Output" means: (i) all information of a scientific, technical, or artistic nature relating to the *Services*, whether oral or recorded in any form or medium and whether or not subject to copyright, including but not limited to any Inventions, designs, methods, reports, photographs, physical models, surveys, drawings, specifications developed for the purpose of the Project; as well as (ii) computer printouts, design notes, calculations, CADD (Computer-aided Design and Drafting) files, and other data, information and material, prepared, computed, drawn, or produced for the purpose of the Project; and (iii) operating and maintenance manuals prepared or collected for the Project; and (iv) any buildings, built works, structures and facilities constructed as, or as part of, the Project. Technical Output does not include data concerned with the administration of the Standing Offer and/or Call-Up by Canada or the *Consultant*, such as internal financial or management information, unless it is a deliverable under the terms of the Standing Offer and/or Call-Up.

2. Identification and Disclosure of Foreground

The *Consultant* shall:

- (a) promptly report and fully disclose to Canada all Foreground that could be Inventions, and shall report and fully disclose to Canada all other Foreground not later than the time of completion of the *Services* or such earlier time as Canada or the Standing Offer and/or Call-Up may require, and
- (b) for each disclosure referred to in (a), indicate the names of all *Sub-Consultants* at any tier, if any, in which IP Rights to any Foreground have vested or will vest.

Before and after final payment to the *Consultant*, Canada shall have the right to examine all records and supporting data of the *Consultant* which Canada reasonably decides is pertinent to the identification of the Foreground.

3. IP Rights Vest with *Consultant*

Subject to articles GC 12.10 and GC 12.11 and the provisions of GC 11 National or Departmental Security, and without affecting any IP Rights or interests therein that have come into being prior to the Standing Offer and/or Call-Up or that relate to information or data supplied by *Canada* for the purposes of the Standing Offer and/or Call-Up, all IP Rights in the Foreground shall immediately, as soon as they come into existence, vest in and remain the property of the *Consultant*.

4. Ownership Rights in Deliverables

Notwithstanding the *Consultant's* ownership of the IP Rights in the Foreground that is a prototype, built work, building, structure, facility, model or custom or customized system or equipment together with associated manuals and other operating and maintenance documents and tools, *Canada* shall have unrestricted ownership rights in those deliverables, including the right to make them available for public use, whether for a fee or otherwise, and the right to sell them.

5. Licence to Foreground

Without limiting any implied licences that may otherwise vest in *Canada*, and in consideration of *Canada's* contribution to the cost of development of the Foreground, the *Consultant* hereby grants to *Canada* a non-exclusive, perpetual, irrevocable, worldwide, fully-paid and royalty-free licence to exercise all IP Rights in the Foreground that vest in the *Consultant* pursuant to article GC 12.3, for the purpose of:

- (a) the construction or implementation of any building, built works, structures and facilities, contemplated by the Project;
- (b) the further development or alteration or evolution of any part of the constructed or implemented Project, including procurement of materials and components for this purpose;
- (c) the further development, modification (including additions or deletions), completion, translation, or implementation of the Foreground and any addition to it as *Canada* may require for the purposes of the completion, utilization and subsequent evolution of the Project;
- (d) the use, occupancy, operation, exploitation, maintenance, repair or restoration of the constructed or implemented or subsequently modified Project, including the procurement of replacement materials and components required for any such purpose; and

- (e) the publishing and transmission of reproductions of the Project or any part thereof in the form of paintings, drawings, engravings, photographs or cinematographic works, to the public, in hard copy or by any electronic or other means, except for copies in the nature of architectural drawings or plans.

6. Licence to Foreground for Other Projects

The *Consultant* hereby grants to *Canada* a non-exclusive, perpetual, world-wide, irrevocable licence to exercise all IP Rights that vest in the *Consultant* pursuant to paragraph GC 12.3 for the purpose of planning, designing and constructing or otherwise implementing any project other than the Project, and for any purpose set out in paragraph GC 12.5 as it relates to such other project. In the event that *Canada* exercises such IP Rights in another project, and provided that *Canada* does not already have equivalent rights under a previous contract or otherwise, *Canada* agrees to pay to the *Consultant* reasonable compensation determined in accordance with current industry practice and having regard to *Canada's* contribution to the cost of development of the Foreground. The *Consultant* shall ensure that in any sale, assignment, transfer or licence of any of the IP Rights that vest in the *Consultant* under the Standing Offer and/or Call-Up, the purchaser, assignee, transferee or licensee agrees to be bound by the terms of this provision and to accept reasonable compensation as is contemplated herein. The *Consultant* shall also ensure that any such purchaser, assignee, transferee or licensee of the IP Rights is required to impose the same obligations on any subsequent purchaser, transferee, assignee or licensee.

7. Licence to Background

Without limiting any implied licences that may otherwise vest in *Canada*, the *Consultant* hereby grants to *Canada* a non-exclusive, perpetual, irrevocable, worldwide, fully-paid and royalty-free licence to exercise such of the IP Rights in any Background incorporated into the *Services* or necessary for the performance of the *Services* as may be required

- (a) for the purposes contemplated in article GC 12.5 and GC 12.6;
- (b) for disclosure to any contractor engaged by *Canada*, or bidder for such a contract, to be used solely for a purpose set out in article GC 12.5 and GC 12.6;

and the *Consultant* agrees to make any such Background available to *Canada* upon request.

8. *Canada's* Right to Disclose and Sub-license

The *Consultant* acknowledges that *Canada* may wish to award contracts, which may include a competitive process, for any of the purposes contemplated in article GC 12.5, GC 12.6 and GC 12.7. The *Consultant* agrees that *Canada's* licence in relation to the IP Rights in the Foreground and in the Background, includes the right to disclose that Foreground and Background to bidders for such contracts, and to sub-license or otherwise authorize the use of that Foreground and Background by any contractor or consultant engaged by *Canada* for the purpose of carrying out such a contract.

9. *Consultant's* Right to Grant Licence

- (a) The *Consultant* represents and warrants that the *Consultant* has, or the *Consultant* shall obtain without delay, the right to grant to *Canada* the licence to exercise the IP Rights in the Foreground and the Background as required by the Standing Offer and/or Call-Up.
- (b) Where the IP Rights in any Background or Foreground are or will be owned by a *Sub-Consultant*, the *Consultant* shall either obtain a licence from that *Sub-Consultant* that permits compliance with articles GC 12.5, GC 12.6 and GC 12.7 or shall arrange for the *Sub-Consultant* to convey directly to *Canada* the same rights by execution of the form

provided for that purpose by Canada no later than the time of disclosure to *Canada* of that Background and Foreground.

10. Trade Secrets and Confidential Information

The *Consultant* shall not use or incorporate any trade secrets or confidential information in any Foreground or Background used or created in performance of the Standing Offer and/or Call-Up.

11. *Canada* Supplied Information

- (a) Where performance of the *Services* involves the preparation of a compilation using information supplied by *Canada*, then the IP Rights that shall vest under paragraph GC 12.3 shall be restricted to the IP Rights in Foreground that are capable of being exploited without the use of the information supplied by *Canada*. All IP Rights in any compilation, the Foreground in which cannot be exploited without the use of such *Canada* supplied information shall vest in *Canada*. The *Consultant* agrees that the *Consultant* shall not use or disclose any *Canada* supplied information for any purpose other than completing the performance of the *Services*. The *Consultant* shall maintain the confidentiality of such information. Unless the Standing Offer and/or Call-Up otherwise expressly provides, the *Consultant* shall deliver to *Canada* all such information together with every copy, draft, working paper and note thereof that contains such information upon the completion or termination of the Standing Offer and/or Call-Up, or at such earlier time as *Canada* may require.
- (b) If the *Consultant* wishes to make use of any *Canada* supplied information that was supplied for purposes of the Standing Offer and/or Call-Up, for the commercial exploitation or further development of any of the Foreground, then the *Consultant* may make a written request for a licence to exercise the required IP Rights in that *Canada* supplied information, to *Canada*. The *Consultant* shall give *Canada* an explanation as to why such a licence is required. Should *Canada* agree to grant such a licence, it shall be on terms and conditions to be negotiated between the parties including payment of compensation to *Canada*.

12. Transfer of IP Rights

- (a) If *Canada* takes the *Services* out of the *Consultant's* hands in accordance with GC 9 of the General Conditions, in whole or in part, or if the *Consultant* fails to disclose any Foreground in accordance with article GC 12.2, *Canada* may upon reasonable notice, require the *Consultant* to convey to *Canada* all of the IP Rights in the Foreground or in the case of a failure to disclose, all the IP Rights in the Foreground not provided. The IP Rights to be conveyed shall include the IP Rights in any Foreground that have vested or are to vest in a *Sub-Consultant*. In the case of IP Rights in Foreground which have been sold or assigned to a party other than a *Sub-Consultant*, the *Consultant* shall not be obligated to convey those IP Rights to *Canada*, but shall pay to *Canada* on demand an amount equal to the consideration which the *Consultant* received from the sale or assignment of the IP Rights in that Foreground or, in the case of a sale or assignment was not at arms length, the fair market value of the IP Rights in that Foreground, in each case including the value of future royalties or licence fees.
- (b) In the event of the issuance by *Canada* of a notice referred to in (a), the *Consultant* shall, at the *Consultant's* own expense and without delay, execute such conveyances or other documents relating to title to the IP Rights as *Canada* may require, and the *Consultant* shall, at *Canada's* expense, afford *Canada* all reasonable assistance in the preparation of applications and in the prosecution of any applications for, or any registration of, any IP Right in any jurisdiction, including without limitation the assistance of the inventor in the case of Inventions.

- (c) Until the *Consultant* completes the performance of the *Services* and discloses all of the Foreground in accordance with article GC 12.2, and subject to the provisions of GC 11 National or Departmental Security, the *Consultant* shall not, without the prior written permission of Canada, sell, assign or otherwise transfer title to the IP Rights in any of the Foreground, or license or otherwise authorize the use of the IP Rights in any of the Foreground by any person.
- (d) In any sale, assignment, transfer or licence of IP Rights in Foreground by the *Consultant* except a sale or licence for end use of a product based on Foreground, the *Consultant* shall impose on the other party all of its obligations to *Canada* in relation to the IP Rights in the Foreground and any restrictions set out in the Standing Offer and/or Call-Up on the use or disposition of the IP Rights in the Foreground (and, if applicable, the Foreground itself), including the obligation to impose the same obligations and restrictions on any subsequent transferee, assignee or licensee. The *Consultant* shall promptly notify *Canada* of the name, address and other pertinent information in regard to any transferee, assignee or licensee.

GC 13 Conflict of Interest and Values and Ethics Codes for the Public Service

1. The *Consultant* declares that the *Consultant* has no pecuniary interest in the business of any third party that would cause, or seem to cause, a conflict of interest in carrying out the *Services*, and should such an interest be acquired during the life of the Standing Offer, the *Consultant* shall declare it immediately to the *Departmental Representative*.
2. The *Consultant* shall not have any tests or investigations carried out by any persons, firms, or corporations, that may have a direct or indirect financial interest in the results of those tests or investigations.
3. The *Consultant* shall not submit, either directly or indirectly, a bid for any Construction Contract related to the Project.
4. The *Consultant* acknowledges that no individuals who are subject to the provisions of the Conflict of Interest Act, 2006, c. 9, s.2, the Conflict of Interest Code for Members of the House of Commons, the Values and Ethics Code for the Public Services, or all other codes of values and ethics applicable within specific organizations cannot derive any direct benefit resulting from the Standing Offer or subsequent Call-ups.
5.
 - (a) The *Consultant* shall not be eligible to compete as a consultant or sub-consultant for a project which may result from the provision of the *Services* if the *Consultant* is involved in the development of a Project Brief or Terms of Reference, a Request for Proposal or similar documents for such project.
 - (b) The *Consultant* providing certain pre-design services (e.g. studies, analysis, schematic design) that do not involve the development of a Project Brief or Terms of Reference, a Request for Proposal or similar documents for such project may be eligible to compete as a consultant or sub-consultant for a project which may result from the provision of these services. The experience acquired by a *Consultant* who has only provided pre-design services, where the information / documentation resulting from these services is made available to other proponents, will not be considered by Canada as conferring an unfair advantage or creating a conflict of interest.

GC 14 Status of Consultant

The *Consultant* is an independent contractor engaged by Canada to perform the *Services*. Nothing in the Standing Offer through a Call-up is intended to create a partnership, a joint venture or an agency between Canada and the other party or parties. The *Consultant* must not represent itself as an agent or

representative of Canada to anyone. Neither the Consultant nor any of its personnel is engaged as an employee or agent of Canada. The Consultant is responsible for all deductions and remittances required by law in relation to its employees.

GC 15 Declaration by Consultant

The *Consultant* declares that:

- (a) based on the information provided pertaining to the *Services* required under the Standing Offer, the *Consultant* has been provided sufficient information by the *Departmental Representative* to enable the *Services* required under the Standing Offer to proceed and is competent to perform the *Services* and has the necessary licences and qualifications including the knowledge, skill and ability to perform the *Services*; and
- (b) the quality of *Services* to be provided by the *Consultant* shall be consistent with generally accepted professional standards and principles.

GC 16 Insurance Requirements

1. General

- a) The Consultant shall ensure that appropriate liability insurance coverage is in place to cover the consultant and the members of the consultant team and shall maintain all required insurance policies as specified herein.
- b) The Consultant shall, if requested by the Contracting Officer at any time, provide to the Contracting Officer an Insurer's Certificate of Insurance and/or the originals or certified true copies of all contracts of insurance maintained by the Consultant pursuant to the provisions contained herein.
- c) The payment of monies up to the deductible amount made in satisfaction of a claim shall be borne by the Consultant.
- d) Any insurance coverages additional to those required herein that the Consultant and the other members of the consultant team may deem necessary for their own protection or to fulfill their obligations shall be at their own discretion and expense.

2. Commercial General Liability

- a) The insurance coverage provided shall not be less than that provided by IBC Form 2100, as amended from time to time, and shall have: a limit of liability of not less than \$5,000,000.00 per occurrence; an aggregate limit of not less than \$5,000,000.00 within any policy year.
- b) The policy shall insure the Consultant and shall include Her Majesty the Queen in right of Canada, represented by the Minister of Public Works and Government Services as an Additional Insured, with respect to liability arising out of the performance of the *Services*.

3. Professional Liability

- a) The Professional Liability insurance coverage shall be in an amount usual for the nature and scope of the *Services* but, shall have a limit of liability of not less than \$1,000,000 per claim, and be continually maintained from the commencement of performance of the *Services* until five (5) years after their completion.
- b) The following provision must be incorporated into the conditions of the Consultant's

Professional Liability insurance coverage: "Notice of Cancellation of Insurance Coverage: The Insurer agrees to give the Contracting Authority at least thirty (30) days' prior written notice of any policy cancellation and before making any reduction in coverage."

GC 17 Resolution of Disagreements

1. In the event of a disagreement regarding any aspect of the *Services* or any instructions given under the Standing Offer and subsequent Call-ups:
 - (a) The *Consultant* may give a notice of disagreement to the *Departmental Representative*. Such notice shall be promptly given and contain the particulars of the disagreement, any changes in time or amounts claimed, and reference to the relevant clauses of the Standing Offer and Call-up;
 - (b) The *Consultant* shall continue to perform the *Services* in accordance with the instructions of the *Departmental Representative*; and
 - (c) The *Consultant* and the *Departmental Representative* shall attempt to resolve the disagreement by negotiations conducted in good faith. The negotiations shall be conducted, first, at the level of the *Consultant's* project representative and the *Departmental Representative* and, secondly and if necessary, at the level of a principal of the *Consultant* firm and a senior departmental manager.
2. The *Consultant's* continued performance of the *Services* in accordance with the instructions of the *Departmental Representative* shall not jeopardize the legal position of the *Consultant* in any disagreement.
3. If it was subsequently agreed or determined that the instructions given were in error or contrary to the Standing Offer or Call-up, *Canada* shall pay the *Consultant* those fees the *Consultant* shall have earned as a result of the change(s) in the *Services* provided, together with those reasonable disbursements arising from the change(s) and which have been authorized by the *Departmental Representative*.
4. The fees mentioned in GC 17.3 shall be calculated in accordance with the Terms of Payment set out in the Standing Offer and the relevant Call-up.
5. If the disagreement is not settled, the *Consultant* may make a request to the *Departmental Representative* for a written departmental decision and the *Departmental Representative* shall give notice of the departmental decision within fourteen (14) days of receiving the request, setting out the particulars of the response and any relevant clauses of the Standing Offer or Call-up.
6. Within fourteen (14) days of receipt of the written departmental decision, the *Consultant* shall notify the *Departmental Representative* if the *Consultant* accepts or rejects the decision.
7. If the *Consultant* rejects the departmental decision, the *Consultant*, by notice may refer the disagreement to *Mediation*.
8. If the disagreement is referred to *Mediation*, the *Mediation* shall be conducted with the assistance of a skilled and experienced mediator chosen by the *Consultant* from a list of mediators proposed by *Canada*, and departmental *Mediation* procedures shall be used unless the parties agree otherwise.
9. Negotiations conducted under the Standing Offer and any resulting Call-up, including those conducted during *Mediation*, shall be without prejudice.

GC 18 Amendments

The Standing Offer or any resulting Call-up may not be amended, or modified, nor shall any of its terms and conditions be waived, except by agreement in writing executed by the Consultant and the Contracting Authority.

GC 19 Entire Agreement

The Standing Offer and Call-up constitutes the entire and only agreement between the parties and supersedes all previous negotiations, communications and other agreements, whether written or oral, unless they are incorporated by reference in the Standing Offer and/or Call-up. There are no terms, covenants, representations, statements or conditions binding on the parties other than those contained in the Standing Offer and Call-up.

GC 20 Contingency Fees

The Consultant certifies that it has not, directly or indirectly, paid or agreed to pay and agrees that it will not, directly or indirectly, pay a contingency fee for the solicitation, negotiation or obtaining of the Standing Offer to any person, other than an employee of the Consultant acting in the normal course of the employee's duties. In this section, "contingency fee" means any payment or other compensation that depends or is calculated based on a degree of success in soliciting, negotiating or obtaining the Standing Offer and "person" includes any individual who is required to file a return with the registrar pursuant to section 5 of the Lobbying Act, 1985, c. 44 (4th Supplement).

GC 21 Harassment in the Workplace

1. The Consultant acknowledges the responsibility of Canada to ensure, for its employees, a healthy work environment, free of harassment. A copy of the Treasury Board policy, the Policy on the Prevention and Resolution of Harassment in the Workplace, which is also applicable to the Consultant, is available on the Treasury Board Web site.
2. The Consultant must not, either as an individual, or as a corporate or unincorporated entity, through its employees or subconsultants, harass, abuse, threaten, discriminate against or intimidate any employee, consultant or other individual employed by, or under contract with Canada. The Consultant will be advised in writing of any complaint and will have the right to respond in writing. Upon receipt of the Consultant's response, the Contracting Authority will, at its entire discretion, determine if the complaint is founded and decide on any action to be taken.

GC 22 Taxes

1. Federal government departments and agencies are required to pay *Applicable Taxes*.
2. *Applicable Taxes* will be paid by Canada as provided in the invoice submission. *Applicable Taxes* must be specified on all invoices as a separate item along with corresponding registration numbers from the tax authorities. All items that are zero-rated, exempt or to which these *Applicable Taxes* do not apply must be identified as such on all invoices. It is the sole responsibility of the Consultant to charge *Applicable Taxes* at the correct rate in accordance with applicable legislation. The Consultant agrees to remit to appropriate tax authorities any amounts of *Applicable Taxes* paid or due.
3. The Consultant is not entitled to use Canada's exemptions from any tax, such as provincial sales taxes, unless otherwise specified by law. The Consultant must pay applicable provincial sales tax, ancillary taxes, and any commodity tax, on taxable goods or services used or consumed in the performance of the contract (in accordance with applicable legislation), including for material incorporated into real property.
4. In those cases where *Applicable Taxes*, customs duties, and excise taxes are included in the

Contract Price, the *Contract Price* will be adjusted to reflect any increase, or decrease, of *Applicable Taxes*, customs duties, and excise taxes that will have occurred between bid submission and contract award. However, there will be no adjustment for any change to increase the *Contract Price* if public notice of the change was given before bid submission date in sufficient detail to have permitted the Consultant to calculate the effect of the change.

5. Tax Withholding of 15 Percent - Canada Revenue Agency

Pursuant to the Income Tax Act, 1985, c. 1 (5th Supp.) and the Income Tax Regulations, Canada must withhold 15 percent of the amount to be paid to the Consultant in respect of services provided in Canada if the Consultant is not a resident of Canada, unless the Consultant obtains a valid waiver from the Canada Revenue Agency. The amount withheld will be held on account for the Consultant in respect to any tax liability which may be owed to Canada.

GC 23 Changes in the *Consultant* team

1. Should an entity or person named in the Consultant's proposal as an entity or person who is to perform the *Services* or part of the *Services* be unable to perform or complete the *Services*, the *Consultant* shall obtain the concurrence of the *Departmental Representative* prior to performing or completing the *Services*, or entering into an agreement with another equally qualified entity or person to perform or complete the *Services*, such concurrence not to be unreasonably withheld.
2. In seeking to obtain the concurrence of the *Departmental Representative* referred to in paragraph 1, the *Consultant* shall provide notice in writing to the *Departmental Representative* containing:
 - (a) the reason for the inability of the entity or person to perform the *Services*;
 - (b) the name, demonstration of equivalent qualifications, experience and expertise of the proposed replacement entity or person, and
 - (c) if applicable, proof that the entity or person has the required security clearance granted by *Canada*.
3. The *Consultant* shall not, in any event, allow performance of any part of the *Services* by unauthorized replacement entities or persons, and acceptance of a replacement entity or person by the *Departmental Representative* shall not relieve the *Consultant* from responsibility to perform the *Services*.
4. The *Departmental Representative*, with the authority of *Canada*, may order the removal from the *Consultant* team of any unauthorized replacement entity or person and the *Consultant* shall immediately remove the entity or person from the performance of the *Services* and shall, in accordance with paragraphs 1. and 2., secure a further replacement.
5. The fact that the *Departmental Representative* does not order the removal of a replacement entity or person from the performance of the *Services* shall not relieve the *Consultant* from the Consultant's responsibility to meet all the Consultant's obligations in the performance of the *Services*.

GC 24 Joint and Several Liability

If at any time there is more than one legal entity constituting the *Consultant*, their covenants under the Standing Offer and/or Call-Up shall be considered to be joint and several and apply to each and every entity. If the *Consultant* is or becomes a partnership or joint venture, each legal entity who is a member or becomes a member of the partnership or joint venture or its successors is and continues to be jointly and severally liable for the performance of the work and all the covenants of the *Consultant* pursuant to the Standing Offer and/or Call-Up, whether or not that entity ceases to be a member of the partnership, joint

venture or its successor.

GC 25 Not Applicable

GC 26 International Sanctions

1. Persons in Canada, and Canadians outside of Canada, are bound by economic sanctions imposed by Canada. As a result, the Government of Canada cannot accept delivery of goods or services that originate, either directly or indirectly, from the countries or persons subject to [economic sanctions](http://www.international.gc.ca/sanctions/index.aspx?lang=eng) (<http://www.international.gc.ca/sanctions/index.aspx?lang=eng>).
2. The Consultant must not supply to the Government of Canada any goods or services which are subject to economic sanctions.
3. The Consultant must comply with changes to the regulations imposed during the period of the Call-Up. The Consultant must immediately advise Canada if it is unable to perform the Services as a result of the imposition of economic sanctions against a country or person or the addition of a good or service to the list of sanctioned goods or services. If the parties cannot agree on a work around plan, the Call-Up will be terminated for the convenience of Canada in accordance with terms and conditions of the Standing Offer and/or Call-Up.

GC 27 Integrity Provisions - Standing Offer and Contract

1. Statement
 - a. The Consultant must comply with the *Code of Conduct for Procurement* (<http://www.tpsgc-pwgsc.gc.ca/app-acq/cndt-cndct/contexte-context-eng.html>) and must comply with the terms set out in these Integrity Provisions.
 - b. The Consultant confirms that it understands that convictions of certain offences, a false declaration in its bid, a false declaration under the Contract or failing to maintain up-to-date information requested may lead to the setting aside of the Standing Offer and a termination for default of any resulting contracts. If the Consultant or any of its Affiliates fail to remain free and clear of any convictions and any conditional or absolute discharges specified in these Integrity Provisions during the period of the Standing Offer and the period of any resulting contracts, Canada may, following a notice period, set aside the Standing Offer and terminate for default any resulting contracts. The Consultant understands that a termination for default will not restrict Canada's right to exercise any other remedies that may be available against the Consultant and agrees to immediately return any advance payments.
2. List of Names
The Consultant must immediately inform Canada in writing of any changes affecting the list of names of directors and owners during the period of the Standing Offer and the period of any resulting contracts.
3. Information Verification
The Consultant certifies that it is aware, and its Affiliates are aware, that Canada may verify at any time during the period of the Standing and any resulting contracts, the information provided by the Consultant, including the information relating to the acts or convictions and any conditional or absolute discharges specified in these Integrity Provisions. Canada may request additional information, validations from a qualified third party, consent forms and other evidentiary elements proving identity and eligibility to contract with Canada.
4. Lobbying Act
The Consultant certifies that neither it nor its Affiliates have directly or indirectly, paid or agreed to pay, and will not, directly or indirectly, pay a contingency fee to any individual for the solicitation,

negotiation or obtaining of the Contract if the payment of the fee would require the individual to file a return under section 5 of the *Lobbying Act*. (<http://laws-lois.justice.gc.ca/eng/acts/L-12.4/>).

5. Canadian Offences Resulting in Legal Incapacity

- a. The Consultant has certified that neither it nor any of its Affiliates have been convicted of or have pleaded guilty to an offence under any of the following provisions, which result in legal incapacity under section 750(3) of the *Criminal Code*, and for which they have not been pardoned or received a record of discharge under the Canadian Pardons subsection:
 - i. paragraph 80(1)(d) (*False entry, certificate or return*), subsection 80(2) (*Fraud against Her Majesty*) or section 154.01 (*Fraud against Her Majesty*) of the *Financial Administration Act* (<http://laws-lois.justice.gc.ca/eng/acts/f-11/>), or
 - ii. section 121 (*Frauds on the government and Consultant subscribing to election fund*), section 124 (*Selling or Purchasing Office*), section 380 (*Fraud*) for fraud committed against Her Majesty or section 418 (*Selling defective stores to Her Majesty*) of the *Criminal Code* (<http://laws-lois.justice.gc.ca/eng/acts/C-46/>), or
- b. the Consultant has not been convicted of or pleaded guilty to the offences described in paragraph (a) and has certified that it has not directed, influenced, authorized, assented to, acquiesced in or participated in the commission or omission of the acts or offences that would render that Affiliate ineligible to be awarded a contract under (a).

6. Canadian Offences

The Consultant has certified that:

- a. it and its Affiliates have not, in the last three years, from the standing offer issuance date, been convicted of or pleaded guilty to an offence under any of the following provisions for which it would be ineligible for contract award under these Integrity Provisions and for which they have not been pardoned or received a record of discharge under the Canadian Pardons subsection:
 - i. section 119 (*Bribery of judicial officers, etc*), section 120 (*Bribery of officers*), section 346 (*Extortion*), sections 366 to 368 (*Forgery and other offences resembling forgery*), section 382 (*Fraudulent manipulation of stock exchange transactions*), section 382.1 (*Prohibited insider trading*), section 397 (*Falsification of books and documents*), section 422 (*Criminal breach of contract*), section 426 (*Secret commissions*), section 462.31 (*Laundering proceeds of crime*) or sections 467.11 to 467.13 (*Participation in activities of criminal organization*) of the *Criminal Code* (<http://laws-lois.justice.gc.ca/eng/acts/C-46/>), or
 - ii. section 45 (*Conspiracies, agreements or arrangements between competitors*), section 46 (*Foreign directives*), section 47 (*Bid rigging*), section 49 (*Agreements or arrangements of federal financial institutions*), section 52 (*False or misleading representation*), section 53 (*Deceptive notice of winning a prize*) of the *Competition Act* (<http://laws-lois.justice.gc.ca/eng/acts/C-34/>), or
 - iii. section 239 (*False or deceptive statements*) of the *Income Tax Act* (<http://laws-lois.justice.gc.ca/eng/acts/I-3.3/index.html>), or
 - iv. section 327 (*False or deceptive statements*) of the *Excise Tax Act* (, or
 - v. section 3 (*Bribing a foreign public official*), section 4 (*Accounting*), or section 5 (*Offence committed outside Canada*) of the *Corruption of Foreign Public Officials Act* (<http://laws-lois.justice.gc.ca/eng/acts/C-45.2/>), or
 - vi. section 5 (*Trafficking in substance*), section 6 (*Importing and exporting*), or section 7 (*Production of substance*) of the *Controlled Drugs and Substance Act* (<http://laws-lois.justice.gc.ca/eng/acts/C-38.8/>), or
- b. the Consultant has not been convicted of or pleaded guilty to the offences described in paragraph (a) and has certified that it has not directed, influenced, authorized, assented to, acquiesced in or participated in the commission or omission of the acts or offences that would make that Affiliate ineligible for to be issued a standing offer or to be awarded a contract.

7. Foreign Offences

The Consultant has certified that:

- a. it and its Affiliates have not, in the last three years, from the standing offer issuance date, been convicted of or pleaded guilty to an offence in a jurisdiction other than Canada of having committed an act or omission that would, in Canada's opinion, be similar to an offence referenced in the Canadian Offences Resulting in Legal Incapacity and the Canadian Offences subsections and for which it would be ineligible to be issued a standing offer or to be awarded a contract under these Integrity Provisions and for which they have not been pardoned or received a record of discharge under the Foreign Pardons subsection:
 - i. the court before which the Consultant or the Affiliate of the Consultant appeared acted within the court's jurisdiction;
 - ii. the Consultant or the Affiliate of the Consultant appeared during the court's proceedings or submitted to the court's jurisdiction;
 - iii. the court's decision was not obtained by fraud; and
 - iv. the Consultant or the Affiliate of the Consultant was entitled to present to the court every defence that the Consultant or the Affiliate of the Consultant would have been entitled to present had the proceeding been tried in Canada; or
- b. it has not been convicted of or pleaded guilty to the offences described in paragraph (a) and has certified that it has not directed, influenced, authorized, assented to, acquiesced in or participated in the commission or omission of the acts or offences that would render that Affiliate ineligible to be awarded a contract under (a).

8. Ineligibility to Contract with Canada

- a. The Consultant confirms that it understands that if after the issuance of a standing offer they have been convicted of certain offences, as described in the Canadian Offences Resulting in Legal Incapacity, the Canadian Offences and the Foreign Offences subsections, they will be ineligible to be issued a standing offer or to be awarded a contract with Canada. If, after issuance of the standing offer, a Consultant becomes ineligible to be issued a standing offer, Canada may, following a notice period, declare the Consultant to be ineligible and, to the extent that a standing offer has been issued:
 - i. Set-aside the Standing Offer; and
 - ii. Terminate any resulting contracts for default; or
 - iii. require the Consultant to enter into an Administrative Agreement with the Minister of PWGS on such terms and conditions as are necessary to safeguard the integrity of the procurement process.
- b. The Consultant confirms that it understands that where its Affiliate has been convicted of certain offences, as described in the Canadian Offences Resulting in Legal Incapacity, the Canadian Offences and the Foreign Offences subsections, the Affiliate is ineligible to be issued a standing offer or to be awarded a contract with Canada. If, after the issuance of a standing offer, an Affiliate of a Consultant becomes ineligible to be issued a standing offer or to be awarded a contract with Canada, Canada may, following a notice period, declare the Consultant to be ineligible and, to the extent that a standing offer has been issued:
 - i. Set-aside the Standing Offer; and
 - ii. terminate any resulting contracts for default if, in the opinion of Canada, there is evidence that the Consultant directed, influenced, authorized, assented to, acquiesced in or participated in the commission or omission of certain acts or offences that make that Affiliate ineligible; or
 - iii. require the Consultant to enter into an Administrative Agreement with the Minister of PWGS on such terms and conditions as are necessary to safeguard the integrity of the procurement process.
- c. The Consultant confirms that it understands that where it has been declared to be ineligible to be issued a standing offer or to be awarded a contract with Canada under the *Ineligibility and Suspension Policy* (<http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-fra.html>), it is also ineligible to be issued a standing offer or to be awarded a contract with Canada under these Integrity Provisions for the duration of the period that has been determined by the

Minister of PWGS. Where the Consultant has been declared to be ineligible under the *Ineligibility and Suspension Policy* after the issuance of the Standing Offer, Canada may, following a notice period:

- i. set-aside the Standing Offer; and
 - ii. terminate any resulting contracts for default; or
 - iii. require the Consultant to enter into an Administrative Agreement with the Minister of PWGS on such terms and conditions as are necessary to safeguard the integrity of the procurement process.
- d. The Consultant confirms that it understands that where it or its Affiliates have been held responsible for breaches under the Lobbying Act subsection, it is ineligible to be issued a standing offer or to be awarded a contract with Canada under these Integrity Provisions for the duration of the period that has been determined by the Minister of PWGS. Where the Consultant has been declared to be ineligible under the *Ineligibility and Suspension Policy* after issuance of the Standing Offer, Canada may, following a notice period:
- i. set-aside the Standing Offer; and
 - ii. terminate any resulting contracts for default; or
 - iii. require the Consultant to enter into an Administrative Agreement with the Minister of PWGS on such terms and conditions as are necessary to safeguard the integrity of the procurement process.

9. Declaration of Offences Committed

The Consultant understands that it has a continuing obligation to immediately declare all convictions to Canada under the Canadian Offences Resulting in Legal Incapacity, the Canadian Offences and the Foreign Offences subsections.

10. Period of Ineligibility

The following rules determine the period for which a Consultant or its Affiliate that has been convicted of certain offences is, ineligible to contract with Canada:

- a. for all offences referenced under the Canadian Offences Resulting in Legal Incapacity subsection for which a Consultant or its Affiliate has pleaded guilty to or has been convicted of, the period of ineligibility to be awarded a contract is indefinite, subject to the Canadian Pardons subsection;
- b. subject to an Administrative Agreement, for all offences referenced under the Canadian Offences and Foreign Offences subsections for which a Consultant or its Affiliate has pleaded guilty to or been convicted of, as the case may be, in the last three years, the period of ineligibility to contract with Canada is ten years from the date of determination by the Minister of PWGS, subject to the Canadian Pardons and Foreign Pardons subsections;
- c. subject to an Administrative Agreement, for all breaches under the Lobbying Act subsection for which a Consultant or its Affiliate has been found responsible, in the last three years, the period of ineligibility to contract with Canada is ten years from the date of determination by the Minister of PWGS.

11. Canadian Pardons

A determination of ineligibility to contract with Canada will not be made or maintained by the Minister of PWGS under these Integrity Provisions, in respect of an offence or act that gave rise or that could give rise to a determination of ineligibility, if the Consultant or its Affiliate has:

- a. been granted an absolute discharge in respect of the offence, or has been granted a conditional discharge in respect of the offence and those conditions have been satisfied;
- b. been granted a pardon under Her Majesty's royal prerogative of mercy;
- c. been granted a pardon under section 748 of the *Criminal Code* (<http://laws-lois.justice.gc.ca/eng/acts/C-46/>);
- d. received a record of suspension ordered under the *Criminal Records Act* (<http://laws-lois.justice.gc.ca/eng/acts/c-47/>); and
- e. been granted a pardon under the *Criminal Records Act*, as that Act read immediately before the day section 165 of the *Safe Streets and Communities Act* (http://laws-lois.justice.gc.ca/eng/annualstatutes/2012_1/) comes into force.

12. Foreign Pardons

A determination of ineligibility for the issuance of a standing offer or for award of government contracts will not be made or maintained, as the case may be, by the Minister of PWGS in respect of matters referenced in the Foreign Offences subsection and with respect to an offence or act that gave rise or will give rise to a determination of ineligibility, if the Consultant or its Affiliate, has at any time, benefited from foreign measures that are similar to Canadian pardons at the sole discretion of Canada, conditional discharges, absolute discharges, record of suspensions, or restoration of legal capacities by the Governor in Council.

13. Period of Ineligibility for Breaching Administrative Agreements

The Consultant confirms that it understands that where it has concluded an Administrative Agreement and that it has breached any of its terms and conditions, the Minister of PWGS will lengthen the period of ineligibility for a period to be determined by the Minister of PWGS.

14. Obligations on Sub-consultants

The Consultant confirms that it understands that to the extent that it relies on a sub-consultant(s) to perform the Contract, the Consultant will not enter into a subcontract with a company that has been convicted of or pleaded guilty or an Affiliate of the company has been convicted of or pleaded guilty, as the case may be, to any of the offences referenced in the Canadian Offences Resulting in Legal Incapacity, the Canadian Offences and the Foreign Offences subsections for which no pardon or equivalent has been received under the Canadian Pardons and Foreign Pardons subsections, without the prior written approval of the Minister of PWGS. Where the Consultant has entered into a contract with an ineligible sub-consultant and for which no prior written approval has been received by Canada, the Minister of PWGS will declare the Consultant to be ineligible to contract with Canada for a period of five years.

Solicitation No. - N° de l'invitation
EQ754-161519/A

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
PWL027

Client Ref. No. - N° de réf. du client
EQ754-161519

File No. - N° du dossier
PWL-5-38131

CCC No./N° CCC - FMS No./N° VME

0000DA

SUPPLEMENTARY CONDITIONS

SC 1 Federal Contractors Program for Employment Equity - Setting aside and Default by the Consultant

The Consultant understands and agrees that, when an Agreement to Implement Employment Equity (AIEE) exists between the Consultant and Employment and Social Development Canada (ESDC)-Labour, the AIEE must remain valid during the entire period of the Standing Offer and contract. If the AIEE becomes invalid, the name of the Consultant will be added to the "FCP Limited Eligibility to Bid" list. The imposition of such a sanction by ESDC may result in the setting aside of the Standing Offer and will constitute the Consultant in default as per the terms of the contract.

9998DA TERMS OF PAYMENT

TP 1 Fees

1. Subject to the terms and conditions of the Standing Offer, and in consideration for the performance of the *Services*, Canada shall pay to the *Consultant* a sum of money calculated in accordance with the fee arrangements identified herein and in 2000DA.
2. The *Consultant's* fees are only payable when the *Consultant* has performed the *Services* as determined by the *Departmental Representative*. Payment in respect of a *Service*, or part of a *Service*, is not to be deemed a waiver of *Canada's* rights of set-off at law or under this Standing Offer for costs or expenses arising from default or negligence of the *Consultant*.
3. The maximum amount payable under a Call-Up, including fees and disbursements, shall not be exceeded, without the prior written authorization of the Contracting Authority.

TP 2 Payments to the Consultant

1. The *Consultant* shall be entitled to receive progress payments at monthly or other agreed intervals, subject to the limitations of the Call-up, if applicable. Such payments shall be made not later than the due date. The due date shall be the 30th day following receipt of an acceptable invoice.
2. An acceptable invoice shall be an invoice delivered to the *Departmental Representative* in the agreed format with sufficient detail and information to permit verification. The invoice shall also identify, as separate items:
 - (a) the amount of the progress payment being claimed for *Services* satisfactorily performed,
 - (b) the amount for any tax calculated in accordance with the applicable federal legislation, and
 - (c) the total amount which shall be the sum of the amounts referred to in TP 2.2(a) and TP 2.2(b).
3. The amount of the tax shown on the invoice shall be paid by *Canada* to the *Consultant* in addition to the amount of the progress payment for *Services* satisfactorily performed.
4. The *Departmental Representative* shall notify the *Consultant* within fifteen (15) days after the receipt of an invoice of any error or missing information therein. Payment shall be made not later than thirty (30) days after acceptance of the corrected invoice or the required information.
5. Upon completion of each Call-up, the *Consultant* shall provide a Statutory Declaration evidencing that all the *Consultant's* financial obligations for *Services* rendered to the *Consultant* or on the *Consultant's* account, in connection with the Call-up, have been satisfied.
6. Upon written notice by a *Sub-Consultant*, with whom the *Consultant* has a direct contract, of an alleged non payment to the *Sub-Consultant*, the *Departmental Representative* may provide the *Sub-Consultant* with a copy of the latest approved progress payment made to the *Consultant* for the *Services*.
7. Upon the satisfactory completion of all *Services*, the amount due, less any payments already made, shall be paid to the *Consultant* not later than thirty (30) days after receipt of an acceptable invoice, together with the Statutory Declaration in accordance with TP 2.5.

TP 3 Delayed Payment

1. If *Canada* delays in making a payment that is due in accordance with TP 2, the *Consultant* will be entitled to receive interest on the amount that is overdue for the period of time as defined in TP 3.2 including the day previous to the date of payment. Such date of payment shall be deemed to be the date on the cheque given for payment of the overdue amount. An amount is overdue when it is unpaid on the first day following the due date described in TP 2.1.
2. Interest shall be paid automatically on all amounts that are not paid by the due date or fifteen (15) days after the *Consultant* has delivered a Statutory Declaration in accordance with TP 2.5 or TP 2.7, whichever is the later.
3. The rate of interest shall be the *Average Bank Rate* plus 3 percent per year on any amount which is overdue pursuant to TP 3.1.

TP 4 Claims Against, and Obligations of, the Consultant

1. *Canada* may, in order to discharge lawful obligations of and satisfy lawful claims against the *Consultant* by a *Sub-Consultant*, with whom the *Consultant* has a direct contract, for *Services* rendered to, or on behalf of, the *Consultant*, pay an amount from money that is due and payable to the *Consultant* directly to the claimant *Sub-Consultant*.
2. For the purposes of TP 4.1 a claim shall be considered lawful when it is so determined:
 - (a) by a court of legal jurisdiction, or
 - (b) by an arbitrator duly appointed to arbitrate the said claim, or
 - (c) by a written notice delivered to the *Departmental Representative* and signed by the *Consultant* authorizing payment of the said claim or claims.
3. A payment made pursuant to TP 4.1 is, to the extent of the payment, a discharge of *Canada's* liability to the *Consultant* under a specific Call-up and will be deducted from any amount payable to the *Consultant* under any active Call-up.
4. TP 4.1 shall only apply to claims and obligations
 - (a) The notification of which has set forth the amount claimed to be owing and a full description of the *Services* or a part of the *Services* for which the claimant has not been paid. The notification must be received by the *Departmental Representative* in writing before the final payment is made to the *Consultant* and within one hundred twenty (120) days of the date on which the claimant
 - (1) should have been paid in full under the claimant's agreement with the *Consultant* where the claim is for an amount that was lawfully required to be held back from the claimant; or
 - (2) performed the last of the *Services* pursuant to the claimant's agreement with the *Consultant* where the claim is not for an amount referred to in TP 4.4(a)(1), and
 - (b) the proceedings to determine the right to payment of which shall have commenced within one year from the date that the notification referred to in TP 4.4(a) was received by the *Departmental Representative*.
5. *Canada* may, upon receipt of a notification of claim referred to in TP 4.4(a), withhold from any amount that is due and payable to the *Consultant* pursuant to a Call-up the full amount of the claim or any portion thereof.
6. The *Departmental Representative* shall notify the *Consultant* in writing of receipt of any notification

of claim and of the intention of *Canada* to withhold funds pursuant to TP 4.5. The *Consultant* may, at any time thereafter and until payment is made to the claimant, post with *Canada*, security in a form acceptable to *Canada* in an amount equal to the value of the said claim. Upon receipt of such security *Canada* shall release to the *Consultant* any funds which would be otherwise payable to the *Consultant*, that were withheld pursuant to the provision of TP 4.5.

7. The *Consultant* shall discharge all lawful obligations and shall satisfy all lawful claims against the *Consultant* for *Services* rendered to, or on behalf of, the *Consultant* in respect of this Standing Offer at least as often as this Standing Offer requires *Canada* to discharge its obligations to the *Consultant*.

TP 5 No Payment for Errors and Omissions

The *Consultant* shall not be entitled to payment in respect of costs incurred by the *Consultant* in remedying errors and omissions in the *Services* that are attributable to the *Consultant*, the *Consultant's* employees, or persons for whom the *Consultant* had assumed responsibility in performing the *Services*.

TP 6 Payment for Changes and Revisions

1. Payment for any additional or reduced *Services* authorized by the Departmental Representative, prior to their performance, and for which a basis of payment has not been established at the time of execution of the Call-up, shall be in an amount or amounts to be determined by the Departmental Representative, acting reasonably, subject to these Terms of Payment.
2. Payment for additional *Services* not identified at the time of execution of the Call-up shall be made only to the extent that
 - (a) the additional *Services* are *Services* that are not included in stated *Services* in the Call-Up; and
 - (b) The additional *Services* are required for reasons beyond the control of the *Consultant*.

TP 7 Extension of Time

If, and to the extent that, the time for completion of the *Construction Contract* is exceeded or extended through no fault of the *Consultant* in the opinion of *Canada*, payment for the *Services* required for such extended period of the contract administration shall be subject to review and equitable adjustment by *Canada*.

TP 8 Suspension Costs

1. During a period of suspension of the *Services* pursuant to GC 7 of clause 0220DA, General Conditions, the *Consultant* shall minimize all costs and expenses relating to the *Services* that may occur during the suspension period.
2. Within fourteen (14) days of notice of such suspension, the *Consultant* shall submit to the *Departmental Representative* a schedule of costs and expenses, if any, that the *Consultant* expects to incur during the period of suspension, and for which the *Consultant* will request reimbursement.
3. Payment shall be made to the *Consultant* for those costs and expenses that, in the opinion of *Canada*, are substantiated as having been reasonably incurred during the suspension period.

TP 9 Termination Costs

1. In the event of termination of any Call-up pursuant to GC 8 of clause 0220DA, General Conditions, *Canada* shall pay, and the *Consultant* shall accept in full settlement, an amount based on these Terms of Payment, for *Services* satisfactorily performed and any reasonable costs and expenses

incurred to terminate the Call-Up.

2. Within fourteen (14) *days* of notice of such termination, the *Consultant* shall submit to the *Departmental Representative* a schedule of costs and expenses reasonably incurred. The Consultant must ensure that it has mitigated its costs to the best of its ability.
3. Payment shall be made to the *Consultant* for those costs and expenses that in the opinion of *Canada* are substantiated as having been reasonably incurred after the date of termination.
4. The Consultant has no claim for damages, compensation, loss of profit, loss of opportunity, allowance or otherwise by reason of, or directly or indirectly arising out of, any action taken or termination notice given by Canada under GC8 Termination.

TP 10 Disbursements

1. Subject to any provisions specifically to the contrary in the Supplementary Conditions, the following costs shall be included in the fees required to deliver the consultant services and shall not be reimbursed separately;
 - (a) reproduction and delivery costs of drawings, CADD files, specifications and other Technical Documentation specified in the Standing Offer Brief;
 - (b) standard office expenses such as any photocopying, computer costs, Internet, cellular phone costs, long distance telephone and fax costs, including that between the Consultant's main office and branch offices or between the Consultant's offices and other team members offices;
 - (c) transportation costs for material samples and models, and courier and delivery charges for deliverables specified in the Standing Offer Brief;
 - (d) plotting;
 - (e) presentation material;
 - (f) parking fees;
 - (g) taxi charges;
 - (h) travel time; and
 - (i) local project office.
2. Subject to any provisions specifically to the contrary in the Supplementary Conditions, the following disbursements reasonably incurred by the Consultant, that are related to the Services and approved by the Departmental Representative, shall be reimbursed to the Consultant at actual cost:
 - (a) reproduction and delivery costs of drawings, CADD files, specifications and other Technical Documentation additional to that specified in the Standing Offer Brief;
 - (b) transportation costs for material samples and models additional, courier and delivery charges, for deliverables additional to those specified in the Standing Offer Brief;
 - (c) Travel and Living Expenses: Firms are advised that any travel-related expenses associated with the delivery of services will be calculated from the applicable government

location (listed below) and/or from the Consultant's closest branch office to the project site, which ever is closer. Travel-related expenses will be paid (with prior approval of the Departmental Representative) in accordance with current National Joint Council (NJC) Travel Directive (<http://www.njc-cnm.gc.ca/directive/index.php?dlabel=travel-voyage&lang=eng&did=10&merge=2>); and

The government locations that will be used to calculate disbursements related to travel and living expenses for each region identified in the Standing Offer is listed below:

Central Ontario: 4900 Yonge Street, Toronto, Ontario

Eastern Ontario: 86 Clarence Street, Kingston, Ontario

South Western Ontario: 457 Richmond Street, London, Ontario

Northern Ontario: 19 Lisgar St., Sudbury for projects east of 86° longitude ie. Sault Ste Marie, Sudbury, North Bay, Timmins and Kirkland Lake; 130 South Syndicate Ave., Thunder Bay for projects west of 86° longitude ie. Thunder Bay, Kenora, Fort Frances, Red Lake

- (d) Additional services' disbursements as authorised by the Departmental Representative, including Sub-Consultants and Specialists, required in support of the requested services under a call-up and which cannot be covered under the fixed hourly rate established under the Standing Offer such as landscape architectural design, civil engineering, security specialist, food service, vertical transportation specialist, wayfinding/signage specialist, etc. The cost for these services shall be administered as follows;

i) Unless otherwise authorized by the Departmental Representative, the above mentioned disbursements shall be obtained through competitive bidding with a minimum of two (2) quotes. Copies of all quotes shall be submitted together with the Consultant proposal for the call-up; or

ii) The disbursements shall be evaluated such that, in the event that competitive quotes are not obtained, the Consultant shall submit copies of invoices from other projects to help demonstrate the quote to be a fair, reasonable and competitive price.

and

- (e) other disbursements made with the prior approval of the *Departmental Representative*.

3. Disbursements shall be Project related and shall not include expenses that are related to the normal operation of the Consultant's business. The amounts payable, shall not exceed the amount entered in the Call-up, without the prior authorization of the Departmental Representative.

9999DA CONSULTANT SERVICES

CS 1 Services

The *Consultant* shall perform the *Services* described herein and in any subsequent Call-up, in accordance with the terms and conditions of this Standing Offer.

CS 2 Standard of Care

In performing the services, the Consultant shall provide and exercise the standard of care, skill and diligence required by customarily accepted professional practices and procedures developed by professional bodies in the performance of the services at the time when and the location in which the *Services* are provided.

CS 3 Time Schedule

The *Consultant* shall:

- (a) submit in a timely manner to the *Departmental Representative*, for approval, a time schedule for the *Services* to be performed, in detail appropriate to the size and complexity of the Project, and in a format as requested by the *Departmental Representative*;
- (b) adhere to the approved time schedule and, if changes in the approved time schedule appear necessary, indicate the extent of, and the reasons and justifications for such changes, and obtain a written approval of the *Departmental Representative*. If deemed not sufficiently justified or unavoidable, the *Departmental Representative* may deny Consultant's request for schedule change(s);
- (c) ensure personnel availability at all times. Shortfall in availability of originally designated personnel or of additional personnel at the Consultant's branch office(s), and/or under-performance/delays caused by external sub-Consultants and/or Specialists may not constitute sufficient grounds for delivery schedule revision, as the Consultant's Standing Offer Manager (refer to AA 1.1.2.1) is to take all the necessary steps and efforts, including mobilisation of additional personnel and/or appropriate substitutions of employees and firms, to achieve the original, approved time schedule.

CS 4 Project Information, Decisions, Acceptances, Approvals

- 1. The *Departmental Representative* shall provide, in a timely manner, project information, written decisions and instructions, including acceptances and approvals relating to the *Services* provided by the *Consultant*.
- 2. No acceptance or approval by the *Departmental Representative*, whether expressed or implied, shall be deemed to relieve the *Consultant* of the professional or technical responsibility for the *Services* provided by the *Consultant*.

CS 5 Changes in Services

The *Consultant* shall:

- (a) make changes in the *Services* to be provided for the Project, including changes which may increase or decrease the original scope of *Services*, when requested in writing by the *Departmental Representative*; and
- (b) prior to commencing such changes, advise the *Departmental Representative* of any known and anticipated effects of the changes on the *Construction Cost Estimate*, *Consultant fees*,

Project Schedule, and other matters concerning the Project.

CS 6 Codes, By-Laws, Licences, Permits

The *Consultant* shall comply with all statutes, codes, regulations and by-laws applicable to the design and where necessary, shall review the design with those public authorities having jurisdiction in order that the consents, approvals, licences and permits required for the project may be applied for and obtained.

CS 7 Provision of Staff

The *Consultant* shall, on request, submit to the *Departmental Representative* for approval, the names, addresses, qualifications, experience and proposed roles of all persons, including principals, to be employed by the *Consultant* to provide the *Services* identified in the Call-up and, on request, submit any subsequent changes to the *Departmental Representative* for approval.

CS 8 Sub-Consultants

1. The *Consultant* shall:
 - (a) prior to any Call-up notify the *Departmental Representative* of any other sub-consultants with whom the *Consultant* intends to enter into agreements for part of the *Services* and, on request, provide details of the terms, and *Services* to be performed under the said agreements and the qualifications and names of the personnel of the *Sub-Consultants* proposed to be employed on any Call-up;
 - (b) include in any agreements entered into with sub-consultants such provisions of this Standing Offer as they apply to the *Sub-Consultants'* responsibilities; and
 - (c) upon written notice by a *Sub-Consultant*, with whom the *Consultant* has a direct contract, inform the *Sub-Consultant* of the *Consultant's* obligations to the *Sub-Consultant* under this Standing Offer.
2. The *Departmental Representative* may object to any *Sub-Consultant* within six (6) days of receipt of notification given in accordance with CS 8.1(a) and, on notification of such objection, the *Consultant* shall not enter into the intended agreement with the *Sub-Consultant*.
3. Neither an agreement with a *Sub-Consultant* nor the *Departmental Representative's* consent to such an agreement by the *Consultant* shall be construed as relieving the *Consultant* from any obligation under this Standing Offer or subsequent Call-ups, or as imposing any liability upon *Canada*.

CS 9 Cost Control

If the *services* required under a call-up are for a construction project, the following will apply:

1. Throughout Project development, the *Construction Cost Estimate* prepared by the *Consultant* shall not exceed the *Construction Cost Limit*.
2. In the event that the *Consultant* considers that the *Construction Cost Estimate* will exceed the *Construction Cost Limit*, the *Consultant* shall notify the *Departmental Representative* and
 - (a) if the excess is due to factors under the control of, or reasonably foreseeable by the *Consultant*, the *Consultant* shall, if requested by the *Departmental Representative*, and at no additional cost to *Canada*, make such changes or revisions to the design as may be necessary to bring the *Construction Cost Estimate* within the *Construction Cost Limit*; or

- (b) if the excess is due to factors that are not under the control of the *Consultant*, changes or revisions may be requested by the *Departmental Representative*. Such changes or revisions shall be undertaken by the *Consultant* at *Canada's* expense, and the cost involved shall become an amount to be mutually agreed, prior to performance of the said changes or revisions.
- 3. If the lowest price obtained by bid process or negotiation exceeds the *Construction Cost Limit*, and if the excess is due to reasons within the control of, or reasonably foreseeable by the *Consultant*, the *Consultant* shall, if requested by the *Departmental Representative*, and without additional charge, be fully responsible for revising the Project scope and quality as required to reduce the construction cost and shall modify the construction documents as necessary to comply with the *Construction Cost Limit*.

2000DA CALCULATION OF FEES

CF 1 Fee Arrangement(s) for Services

1. The fee to be paid to the *Consultant* for the *Services* pursuant to any Call-up, shall be determined by one or more of the following methods:
 - (a) **Fixed Fee:**
The fixed fee will be established by multiplying the applicable hourly rate(s) by the number of hours, negotiated and agreed to by the *Departmental Representative* and the *Consultant*.
 - (b) **Time Based Fee to an Upset Limit:**
An upset limit will be established by the *Departmental Representative*, and the *Consultant* will be paid for actual work performed using the applicable hourly rate(s) for such work.
2. **Maximum Amount(s) Payable**
The maximum amount(s) that applies (apply) to the *Services* to be carried out at the fixed hourly rates shall be as specified in the Call-up, which amount(s) shall not be exceeded without the prior authorization of the *Departmental Representative* with the approval of Canada.

CF 2 Payments for Services

1. Payments in respect of the fixed fee shall be made upon satisfactory performance of the *Services* but such payments shall not exceed the amount(s) as specified in the Call-up, for each *Service*.
2. Payments in respect of the time based fee arrangement shall be made upon satisfactory performance of the *Services* but such payments shall not exceed the amount(s) as specified in the Call-up, for each *Service*.
3. Progress payments, in respect of all fee arrangements, shall be made in accordance with TP 2 in clause 9998DA, Terms of Payment, of the Standing Offer, but such payments shall not exceed the value of the fee indicated for each *Service* under consideration.
4. If, for reasons attributable to the *Consultant*, a price cannot be obtained by a tender or negotiation within the *Construction Cost Limit*, or acceptable to the *Departmental Representative* for the award of the *Construction Contract*, the *Consultant* shall be entitled to receive payment for the tender call, bid evaluation and construction contract award *Services*, only when the requirements of CS 9.3, in clause 9999DA, Consultant Services and Departmental Responsibilities, have been met.

Solicitation No. - N° de l'invitation
EQ754-161519/A

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
PWL027

Client Ref. No. - N° de réf. du client
EQ754-161519

File No. - N° du dossier
PWL-5-38131

CCC No./N° CCC - FMS No./N° VME

STANDING OFFER BRIEF

Agreement Description (AD)
Agreement Administration (AA)
Required Services (RS)

AGREEMENT DESCRIPTION (AD)

AD 1 Introduction

AD 1.1 General Objectives

AD 1.2 Consultant Team

AD 1 INTRODUCTION

AD 1.1 GENERAL OBJECTIVES

The Consultant shall be the Prime Architectural Services Consultant who will render the services of this Standing Offer in conjunction with the support of the services of sub-consultants such as Functional Programmer, Interior Designer, engineering disciplines including Structural, Mechanical, Electrical, Information Technology (IT) and Telecommunications, and other specialized services consultants for Central, Eastern, Southwestern or Northern Ontario Regions.

Individual commissions will provide support to Government of Canada (GC) Departments and Agencies and may include one or more of the Scope of Services listed in RS 2 related to Architectural services. The Consultant and its sub-consultants will provide the Basic Services and Additional Services listed in RS 2. The Consultant will also demonstrate experience and good working relationships with other firms providing services in the Specialized Services listed in RS 2.

Please be advised that, in general, any Architectural services provided must be complete in that they identify all major issues that will have a significant impact on the project. This will promote a surprise-free environment which will enhance the success of project implementation. Also, please note that the Canadian Federal Government continues to ensure that sustainable development principles are built into the policy of the federal organizations. The previous Government of Canada Fit-Up Standards have been revised recently and are now referred to as the "Government of Canada Workplace 2.0 Fit-Up Standards". The Consultant will be expected to incorporate sustainable design principles and the revised Fit-Up Standards for office space in their project solutions.

AD 1.2 CONSULTANT TEAM

1. The Consultant Team for this Standing Offer must provide the following services related to Architectural Services:
 - (a) Architectural design - provide architectural design services to carry out investigations, feasibility studies, develop options, designs and contract documents for the design of new and/or existing buildings with the assistance of other disciplines and specialists.
 - (b) Structural Engineering - provide structural engineering services to carry out inspections, investigations, design and analysis of building structures. Develop drawings and specifications for the new and existing buildings to relevant codes and standards.
 - (c) Mechanical Engineering – provide mechanical engineering services to carry out inspection, investigation, design and analysis of mechanical systems of new and existing buildings. Development of drawings and specifications for the design of new or existing buildings to relevant codes and standards.
 - (d) Electrical Engineering - provide electrical engineering services to carry out inspection, investigation, design and analysis of electrical systems associated with new and existing buildings. Develop design and contract drawings and specifications for the

design/repair/rehabilitation of electrical systems in new or existing buildings to relevant codes and standards.

- (e) Information Technology / Telecommunications - provide IT and telecommunications services to carry out inspection, investigation, design of telecommunications systems in buildings for renovations and new construction.
 - (f) Sustainable Design Specialist - as a LEED Accredited Professional or equivalent provide advisory and integrated design services for both project integrated and standalone sustainable design advice.
 - (g) Functional Programming - provide both project integrated and standalone functional programming services for renovations and new construction.
 - (h) Interior Design - provide both project integrated and standalone interior design services renovations and new construction.
 - (i) Specification Writing - provide both project integrated and standalone specification writing services using the National Master Specification (NMS) system (refer to Doing Business with A&E Ontario Region Standing Offers document as attached to Appendix D). The specification writer should be fully versed with the NMS system format and the 50 Division format.
 - (j) Cost Estimating Specialist - provide both project integrated and stand alone cost estimating services. Cost estimating specialist should be a member of Canadian Institute of Quantity Surveyors.
 - (k) Heritage Conservation Specialist - provide both project integrated and standalone services in heritage conservation to provide heritage advice on projects in designated federal heritage buildings, prepare building envelope screening reports, recommend strategies to limit the visual and physical impact on the heritage values and character defining elements, and complete heritage recording as required.
 - (l) Building Envelope Specialist - provide both project integrated and standalone services in providing advice on proposed designs, assessing existing building envelope condition for repairs or replacement of building elements and preparing building screening reports.
2. The Consultant Team may be augmented/supported by other specialties or services as required by the work under the individual Call-Ups, and as agreed to by the Departmental Representative.

AGREEMENT ADMINISTRATION (AA)

AA 1 General Information

- AA 1.1 Roles and Responsibilities
- AA 1.2 Coordination with Departmental Representative
- AA 1.3 Health and Safety
- AA 1.4 Project Response Time Requirements
- AA 1.5 Official Languages

AA 2 Functional Requirements

- AA 2.1 Design Codes, Regulations and Reference Documents
- AA 2.2 Project Delivery Approach
- AA 2.3 Media
- AA 2.4 General Project Deliverable
- AA 2.5 Acceptance of Project Deliverables

AA 1 GENERAL INFORMATION

AA 1.1 ROLES AND RESPONSIBILITIES

AA 1.1.1 DEPARTMENTAL REPRESENTATIVE

1. The Project Manager assigned to the project is the Departmental Representative.
2. The Departmental Representative, as determined on a project by project basis, has overall responsibility for the progress of the project, including management, administration and coordination of the activities as set out in this document and in a Project Brief or Terms of Reference which have previously been reviewed and accepted.

AA 1.1.2 CONSULTANT

1. The Architectural Prime Consultant shall be responsible for the project delivery of the Consultant Team's services, including management, administration, coordination and reporting of the activities by the Consultant Team as set out in this document.
2. The Consultant shall be responsible for gathering and identifying the needs of the Client Department/agency and incorporating those needs into the required project deliverables once written acceptance is issued by the Departmental Representative.
3. The Consultant shall establish and maintain, throughout the duration of each project, a team capable of effectively delivering the services described in this document.
4. The Consultant shall deliver the project within the time frame and assigned budget in accordance with the approved plan agreed to by the Departmental Representative.
5. Upon execution of the Consultant Call-Up, the Consultant shall be responsible for producing all work described in the Call-up document, in a conscientious and professional manner.
6. The Consultant shall coordinate project requirements with any other adjacent and site work that may be underway.

AA 1.1.2.1 CONSULTANT STANDING OFFER MANAGER

The Consultant Standing Offer Manager, who is permanently based at the Consultant's location, and holds a Senior Executive position in the Consultant's organization, at minimum shall:

1. Be the primary contact and the recipient of individual Call-ups under the Standing Offer, and be the formal issuer of Consultant's proposal or refusal in regards to all Call-ups.
2. Ensure that each individual call-up is responded to with a binding "yes" or a "no" within five (5) working days of its issue to the Consultant. Ensure that call-up proposal is submitted by the Consultant by the deadline stipulated by the Departmental Representative, of the call-up issue.
3. Be the primary contact for the Departmental Representative regarding performance and/or quality issues arising during a call-up project execution by the Consultant Team. A maximum response/contact time of 72 hours is required at all times.
4. Disseminate performance and quality issues to pertinent parties within the Consultant Team and ensure that problems and difficulties are quickly and permanently resolved.
5. Ensure high quality of work delivered by the Consultant Team at all times, through on-going internal Quality Reviews. Ensure proper coordination of work and deliverables between all disciplines.
6. Ensure a comprehensive, in-depth approach to all matters pertaining to public safety and to the mandate of a Call-up.
7. Ensure timely commencement and deliveries of every portion of all projects, and timely overall project completion on each Call-up.
8. Ensure quick response time, prompt execution and on-schedule completion of all work by all members of the Consultant Team, including, if necessary, rapid replacement of notably under-performing personnel and/or sub-consultants.
9. Ensure on-going fiscal responsibility of all members of the Consultant Team.

The Contracting Authority and the Departmental Representative must be informed in writing by the Consultant of a departure of Consultant's Standing Offer Manager within five (5) working days of such departure.

AA 1.1.2.2 CONSULTANT'S CALL-UP TEAM LEADER

1. For each accepted call-up, a Call-up Team Leader is to be designated from among senior staff of the Consultant's firm unless otherwise specified by the Departmental Representative.
2. The designated Call-up Team Leader is to be in full control of Call-up project time assignments for each individual member of the Consultant's Team proposed for a specific call-up, irrespective of and overriding member's physical location, departmental designation and otherwise normal supervisor/manager assignment.

AA 1.1.3 GENERAL INSTRUCTIONS

For any of the Required Services listed in RS 2, the Consultant shall:

1. Attend/Chair regular project status meetings during the life of the project and prepare and distribute minutes in a timely fashion.
2. Submit weekly project progress reports to the Departmental Representative.
3. **When the client requests a change that may alter the scope of work or add to the cost of the project, and/or the cost of services, request approval of the Departmental Representative prior to incorporation in the design.**
4. All design work prepared by the Consultant and his sub-consultants and specialists shall be signed, sealed and dated by a Professional licensed in the province of Ontario for each of their respective disciplines: Licensed Architect in Ontario (OAA member), Professional Engineer (P.Eng) for engineering discipline, Licensed Interior Designer (ARIDO member).

AA 1.2 COORDINATION WITH DEPARTMENTAL REPRESENTATIVE

The Consultant shall:

1. Carry out services in accordance with approved documents and directions given by the Departmental Representative.
2. Correspond only with the Departmental Representative at the times and in the manner dictated by the Departmental Representative.
3. Ensure all communications carry the appropriate Project Title, Project Number and File Number depending on the project particulars.
4. Advise the Departmental Representative of any changes, that may affect schedule or budget or are inconsistent with instructions or written approvals previously given. The Consultant shall detail the extent and reasons for the changes and obtain written approval before proceeding.

AA 1.3 HEALTH AND SAFETY

1. PWGSC recognizes its obligation to protect health and ensure safety of all persons working on projects for which it manages consultant and construction contracts. It also recognizes that federal occupational health and safety legislation places certain specific responsibilities upon PWGSC as the employer and on Other Government Departments as owners of the work place.
2. In order to meet those responsibilities, PWGSC insists that their consultants implement due diligence to help ensure that roles and responsibilities assigned under Part II of the Canada Labour Code and the Canada Occupations Health and Safety Regulations are implemented and observed when involving consultant staff to undertake works on federal sites and work places.

AA 1.4 PROJECT RESPONSE TIME REQUIREMENTS

1. Unless otherwise stated by the Departmental Representative, the Consultant is required to respond within five (5) working days in writing to the Departmental Representative to confirm acceptance or

refusal of the Call-Up. Failure to respond within the five (5) working day deadline will constitute the Consultant's refusal to accept the Call-up.

If accepted, the Consultant will be provided the scope of services and given a reasonable deadline for submission of a proposal. The proposal submission deadline will be established by the Departmental Representative and will be based on the size and complexity of project.

Canada reserves the right to contract separately with other firms/consultants should the Consultant fail to meet either the response deadline or the submission deadline in a timely manner.

2. The Consultant must be able to demonstrate the availability of adequate resources within their proposed team(s) to deliver the scope of services outlined in this Standing Offer in a timely fashion.
3. It is a requirement of all projects covered under this Standing Offer that the prime Consultant and their proposed sub-consultants be personally available to attend meetings and respond to inquiries within 72 hours of being given notice by the Departmental Representative.

AA 1.5 OFFICIAL LANGUAGES

This Standing Offer requires services in the English language.

AA 2 FUNCTIONAL REQUIREMENTS

AA 2.1 DESIGN CODES, REGULATIONS AND REFERENCE DOCUMENTS

1. The Consultant shall comply with all statutes, codes, regulations, standards, guidelines and by-laws applicable to the design and where necessary, shall review the design with those public authorities having jurisdiction in order that the consents, approvals, licenses and permits required for the project may be applied for and obtained.
2. The Consultant shall utilize the latest editions of the applicable codes, standards, guidelines, regulations and by-laws. Public authorities having jurisdiction shall review the design in order to obtain and apply approvals and permits required for the project. In cases of overlap, the most stringent will apply. Refer to PWGSC document "Doing Business with A&E Ontario Region - Standing Offers" attached in Appendix D for a minimal list of applicable codes, regulations, standards and guidelines.
3. The Consultant shall identify other jurisdictions appropriate to the project.

AA 2.2 PROJECT DELIVERY APPROACH

1. Unless otherwise specified in the Call-Up, the traditional design-tender-build approach will be used. The Consultant may be required to prepare the tender package and ensure full coordination.
2. PWGSC will tender contracts through several contracting authorities.

AA 2.3 MEDIA

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

AA 2.4 GENERAL PROJECT DELIVERABLE

1. Where deliverables and submissions are required under the Call-Ups, they shall be submitted in accordance with the Standing Offer. Additional details and/or requirements

may be specified in the Call-Up.

2. All specifications and drawings will be generated and distributed in the format using layering and file protocols as prescribed in the "Doing Business with A&E Ontario Region Standing Offers", Appendix D to the Standing Offer.
3. Unless otherwise indicated in the Call-Up or in the Standing Offer, provide four (4) copies of all deliverables plus one electronic version in a format using PWGSC operational platforms such as: Microsoft (Word and Excel), MS Project, AutoCADD latest version and NMS latest version. In addition provide PDF electronic copy of all final reports and contract documents. All submissions and electronic documents shall be signed, sealed and dated by a Professional licensed in the province of Ontario for each of their respective disciplines: Licensed Architect in Ontario (OAA member), Professional Engineer (P.Eng) for engineering discipline, Licensed Interior Designer (ARIDO member).

For design, documentation and submission standards relating to the services provisions herein refer to PWGSC document "Doing Business with A&E Ontario Region - Standing Offers" attached as Appendix D to this document. The standards in the PWGSC document "Doing Business with A&E Ontario Region - Standing Offers" and requirements at each project delivery stage as described in each individual Call-up must be adhered to in conjunction with this scope of services.

All documents are to be produced in the amounts and types shown below and at the project delivery stage described in each individual Call-up.

	hard copies Hard copies	CADD files PDF files	PDF File	
Reports (i.e. Feasibility Studies, Building Assessments, Functional Programs)	.....4.....	.....1.....		
Design Concept Documents No. of copies	Hard copies.....4.....	CADD files.....1.....	PDF File.....1.....	
Design Development Documents No. of copies:	Hard copies.....4.....	CADD files.....1.....	PDF File.....1.....	
Construction Documents No. of copies:	Hard copies	CADD files	PDF File	NMS spp file
33% to 66% complete	.....4.....	.....1.....	.....1.....	
99% complete	.....4.....	.....1.....	.....1.....	.....1.....
100% complete	.....4.....	.....1.....	.....1.....	.....1.....
Tender Documents No. of copies:	Hard copies	CADD files	PDF File	NMS spp file
Drawings	.....1.....	.....1.....	.....1.....	
Specifications	...1 bound...	.....1.....	.....1.....	.....1.....
Specifications	...1 unbound..			
Record Documents No. of copies	Hard copies.....1.....	CADD files.....1.....	PDF File.....1.....	NMS spp file.....1.....

The schedule for the delivery of services will be determined at the time of each individual Call-up.

AA 2.5 ACCEPTANCE OF PROJECT DELIVERABLES

1. While PWGSC acknowledges the Consultant's obligations to meet project requirements, the project delivery process entitles PWGSC to review work. PWGSC reserves the right to reject undesirable or unsatisfactory work. The Consultant must obtain Departmental Representative acceptances during each of the project stages.
2. Acceptances indicate that based on a general review of material for specific issues, the material is considered to comply with governmental and departmental objectives and practices, and that overall project objectives are being satisfied.
3. The acceptance does not relieve the Consultant of professional responsibility for the work and compliance with the contract.
4. PWGSC acceptances do not prohibit rejection of work, which is determined to be unsatisfactory at later stages of review. If progressive design development or time / cost / risk updates or technical investigation reveals that earlier acceptances must be withdrawn (as a result of undiscovered Consultant mistake, error or disregard of requirements/requests), the Consultant is responsible for redesigning work and resubmitting for acceptance at the Consultant's cost
5. Acceptances by the Client / Users and other agencies and levels of government must be obtained to supplement PWGSC acceptances. The Consultant shall assist the Departmental Representative in securing all such acceptances and adjust all documentation as required by such authorities when securing acceptance.

REQUIRED SERVICES (RS)

RS 1 INTRODUCTION

Consultant shall provide all the required services listed in this Standing Offer either as part of their in-house expertise and/or a combination of in-house resources and sub-consultants/specialists. Specific services will be identified in each Call-Up.

RS 2 SCOPE OF SERVICES:

1. Call-ups may include any or all of the following Basic, Additional or Specialized Services. Specific services will be identified and customized to suit particular requirements in each Call-up:

RS 2.1 Basic Services

- RS 2.1.1 Analysis of Project Scope of Work
- RS 2.1.2 Design Concept (Schematic Design)
- RS 2.1.3 Design Development
- RS 2.1.4 Construction Documents, Pre-Tender Construction Cost Estimate and Project Schedule
- RS 2.1.5 Tender Call, Bid Evaluation and Construction Contract Award
- RS 2.1.6 Construction and Contract Administration
- RS 2.1.7 Commissioning
- RS 2.1.8 Post-Construction Warranty Review

RS 2.2 Additional Services

- RS 2.2.1 Investigations and Reports
- RS 2.2.2 Functional Programming
- RS 2.2.3 Feasibility Studies
- RS 2.2.4 Interior Design
- RS 2.2.5 Accessibility audits
- RS 2.2.6 Sustainability Strategies and Reports
- RS 2.2.7 Resident Services During Construction
- RS 2.2.8 Estimating and Cost Planning
- RS 2.2.9 Risk Management
- RS 2.2.10 Closure Report
- RS 2.2.11 As built documentation and measured drawings
- RS 2.2.12 Materials and Systems Testing
- RS 2.2.13 Coordination of other sub-consultants and specialists
- RS 2.2.14 Administration of multiple contracts
- RS 2.2.15 Compliance / Technical / Peer Reviews
- RS 2.2.16 Other Additional Services

RS 2.3 Specialized Services

- RS 2.3.1 Heritage Conservation Specialist
- RS 2.3.2 Landscape Architectural Design
- RS 2.3.3 Geotechnical Engineering
- RS 2.3.4 Civil Engineering
- RS 2.3.5 Building Envelope Specialist
- RS 2.3.6 Sustainable Design Specialist
- RS 2.3.7 IT / Telecommunications Specialist
- RS 2.3.8 Building Code Specialist
- RS 2.3.9 Audio-visual Specialist
- RS 2.3.10 Acoustic Specialist
- RS 2.3.11 Security Specialist
- RS 2.3.12 Scheduling Specialist
- RS 2.3.13 Food Service / Kitchen Consultant

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RS 2.3.14	Vertical Transportation Specialist
RS 2.3.15	Wayfinding and signage specialist
RS 2.3.16	Roofing Specialist
RS 2.3.17	Other Specialized Services

REQUIRED SERVICES (RS)

RS 2.1 BASIC SERVICES

Basic services described below are considered to be the traditional architectural design services (full/integrated design service) provided by the prime Consultant and the services provided by the basic engineering disciplines: structural, mechanical and electrical, with the specification writer and cost estimator as sub-consultants and/or in-house resources.

The Consultant shall:

1. Manage and coordinate the design and administration of the project and also ensure that all members of the Consultant Team are properly informed of, and fulfill, their responsibilities for the basic services.
2. Throughout all stages of the project, coordinate and assume responsibility for the work of any sub-consultants and specialists retained by the Consultant.
3. Ensure clear, accurate and ongoing communication of concept, design intent, budget, and scheduling issues (including changes) as they relate to the responsibilities of all sub-consultants and specialists from initial base building reviews to post construction reports.
4. Ensure Sub-Consultants provide site inspection services to meet municipal and building code obligations, prepare field review reports and issue correspondence in a timely fashion, respond to the requirements of the authorities having jurisdiction, submit a copy of all correspondence with authorities having jurisdiction to the Departmental Representative, and attend all required meetings.
5. Prepare a documentation and reporting structure for the coordination of consultants in other disciplines to include minutes, change orders, site instructions, shop drawing log and other items of the design process to facilitate project completion, commissioning and close-out.

The following basic services are considered part of the full/integrated design service of a project and Call-ups may include any or all of these services:

RS 2.1.1 ANALYSIS OF PROJECT SCOPE OF WORK

2.1.1.1 INTENT

The purpose of this stage is to ensure the Consultant has reviewed and integrated all the project requirements, identified and evaluated conflicts or problems, provided alternative strategies, presented and received approval on a Project scope, delivery process, schedule and cost estimate required to deliver a cohesive quality project. This approved deliverable will become the Project Scope of Services and will be utilized throughout the project to guide the delivery.

2.1.1.2 SCOPE AND ACTIVITIES:

The Consultant shall:

1. Analyze the Project Brief or the Terms of Reference and advise the Departmental Representative of any noted problems or the need for more information, clarification or direction.
2. Visit the site and/or buildings and verify the availability and capacity of services needed for the project.
3. Perform measurements, surveys and obtain local information applicable to the design, during the site visit. This includes verifying or preparing as built records as necessary.
4. Attend project start up meeting.
5. Analyze the project requirements including but not limited to the space analysis requirements and functional program (when available).
6. Review all available existing material related to the project. **(Please note: Subject to applicable security requirements, the Consultant will be given access to existing plans, survey notes, design notes, specifications or reports that will aid in the work. All such documents must be returned to the Departmental Representative on termination of the contract.)**
7. Review the proposed project schedule for verification that all milestone dates are achievable.
8. Review the cost plan/budget for verification that the costs are realistic and achievable.
9. Identify and verify all authorities having jurisdiction over the project.
10. Identify the codes, regulations and standards that apply.
11. Establish a policy for project to minimize environmental impacts consistent with the project objectives and economic constraints.
12. Review potential for environmental impacts and application of the Canadian Environmental Assessment (CEA) Act.
13. Identify additional and/or specialized services that may be required to proceed with the project but are not included in the required services of the specific call-up. Advise and recommend to the Departmental Representative the list of proposed services such as soil testing, equipment testing, material testing, geotechnical analysis or any other services that may impact the design, quality, budget or schedule of the project.

2.1.1.3 DELIVERABLES:

The Consultant shall:

1. Provide a comprehensive summary of the project requirements/program demonstrating understanding of the scope of work including:
 - a. report on existing base building system elements including their condition, deficiencies and life expectancy.
 - b. confirmed or adjusted project cost and time plans.
 - c. written identification of the problems, conflicts or other perceived information/clarifying assumptions for the acknowledgment of the Departmental Representative.

RS 2.1.2 DESIGN CONCEPT (SCHEMATIC DESIGN)

2.1.2.1 INTENT

The purpose of this stage is to translate the project requirements into space parameters, by exploring design options and analyzing them against priorities and program objectives previously identified. Out of this process, one option will be recommended to proceed to Design Development.

2.1.2.2 SCOPE AND ACTIVITIES:

The Consultant shall:

1. Present alternative design options which are viable and have potential for development.
2. Analyze each solution with regard to the project goals including cost and schedule.
3. Recommend one option for further development with all supporting background and technical justifications.
4. Submit to the Departmental Representative, design concept documents in sufficient detail to illustrate the design concept and to demonstrate compliance with the Project requirements.
5. Submit a preliminary Class C Construction Cost Estimate, Cost Plan and Project Schedule to confirm the feasibility of the Project.
6. Provide copies of all design concept documents in the type and number specified in AA 2.4.
7. Provide drawings that include analytical diagrams, schematic bubble diagrams, plans, elevations, and sections, room names and sizes. Perspective sketches may be requested;
8. Provide option analysis, complete with life cycle cost analysis.
9. Meet and correspond with authorities having jurisdiction and obtain written approvals when required.
10. Recommend a single preferred Conceptual Option for Design Development consideration.

2.1.2.3 DELIVERABLES

The Consultant shall provide the following:

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

2.1.2.4 DELIVERABLES - DETAILS

The Consultant shall provide the following:

2.1.2.4.1 Architectural:

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

2.1.2.4.2 **Structural:**

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

2.1.2.4.3 **Mechanical:**

1. The concept submission shall include a description of specific mechanical requirements and function for each area (room) in the building. Incorporate in the submission a schedule of requirements listing all rooms and identify the mechanical building services to be provided.
2. Explain in the concept submission the manner in which the proposed mechanical systems correlate with user requirements.
3. Identify the volume of outdoor air to be supplied per person.
4. Identify the delivery rate of supply air to occupied spaces.
5. Identify whether full time operating staff will be needed for operating any of the mechanical equipment. Differentiate between staff that is needed by code requirements versus that staff which is needed because of the nature and size of the facility.
6. Identify location of entry point into the building of all mechanical services into the building.
7. Identify in square metres the area to be provided for mechanical rooms, and then identify what percentage of total building area this represents. Identify location of mechanical spaces in the building.
8. Analysis of alternative mechanical schemes at the conceptual design stage shall reveal energy consumption of building systems, operating and maintenance costs on a month by month basis for a time span of one year. Accordingly the estimated energy, operating and maintenance costs shall be used in life cycle cost analyses in order to determine the most beneficial mechanical systems alternative. Life cycle cost analyses shall be based on a projected building life of 25 years.
9. Carry out energy analysis on system alternatives.
10. Establish an energy budget for the building and compare it to energy consumption of other similar buildings. Total energy consumed in the building shall be expressed in kWh/sq m.
11. Submit a complete energy analysis as described in this section in the paragraphs under the heading Building Loads and Energy Analysis.
12. Identify the type of boilers to be used (i.e. cast iron sectional, fire tube, etc.) and provide an economic and technical explanation of the reason for the type of boiler to be used.
13. List of non-Canadian products and materials proposed for the project with written justification.

2.1.2.4.4 **Electrical:**

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

2.1.2.4.5 **Commissioning:**

1. Define Commissioning Requirements.

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

2.1.2.4.6 Sustainable Development:

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

RS 2.1.3 DESIGN DEVELOPMENT

2.1.3.1 INTENT

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

2.1.3.2 SCOPE AND ACTIVITIES:

The Consultant shall:

1. Obtain written approval from the Departmental Representative for development of one of the proposed Design Concept options.
2. If any alterations are demanded, document all required changes, analyze the impact on all project components, and resubmit for approval if required.
3. Expand and clarify the Concept Design intent for each design discipline.
4. Continue to review all applicable statutes, regulations, standards, guidelines, codes and by-laws in relation to the design of the project.
5. Present the design to the authorities having jurisdiction where required.
6. Refine the approved preferred Conceptual Design Option to a level of detail which will facilitate Class B cost estimates, design, Code non-conformances review and discussions with the Client Department.
7. Submit to the Departmental Representative, design development documents in sufficient detail to define the size, intent and character of the entire Project.
8. Analyze the constructability of the project and advise on the construction process and duration.
9. Present the design materials to the client, design review or other committees as indicated by the Departmental Representative.
10. Based on all material available at the time, prepare a milestone schedule for the consideration with special attention to the impact on tenants.
11. Provide a list and draft specification sections of all NMS sections to be used. Submit outline specifications for all systems and principle components and equipment. Provide in the outline specifications manufacturers literature about principal equipment and system components proposed for use in this project.
12. Submit an updated Construction Cost Estimate based on the design development documents, and an updated Cost Plan and Project Schedule.
13. Provide copies of all design development documents in the type and number specified in AA 2.4.

2.1.3.3 DELIVERABLES:

The Consultant shall provide the following:

1. Floor plans including all disciplines showing all floor elements and services to detail necessary to make all design decisions and to substantially estimate the cost of the project
2. Two (2) or three (3) building sections
3. Demolition Plans
4. Architectural, structural, engineering, millwork and finishing details to determine choice of materials and finishes
5. Reflected ceiling plans
6. Elevations
7. Site and building models as required
8. Finished and colour schemes

9. Outline specifications for all systems and principle components or equipment
10. Class 'B' cost estimate
11. Preliminary construction schedule including long term delivery items
12. Fire Protection Engineers Report including requirements, strategies or interventions for protection of the building and its occupants
13. Project dossier detailing the basic assumptions of the project and the justifications for all major decisions
14. Commissioning Plan

2.1.3.4 DELIVERABLES - DETAILS

The deliverables shall include the following:

2.1.3.4.1 Architectural Drawings:

1. Site Plan showing the building(s) and existing or proposed environmental items including traffic pattern, parking, grading, and landscaping.
2. Cross sections through the site to show the relationship of buildings to proposed ground elevations and planting.
3. Floor Plans of each floor showing all accommodation required, including all necessary circulation areas, stairs, elevators, and ancillary spaces anticipated for service use. Indicate building grids, modules, and key dimensions.
4. Furniture and Equipment plans.
5. 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.
6. Cross Sections through the building(s) to show floor levels, room heights, inner corridor or court elevations, etc.
7. Detail Sections of walls or special design features requiring illustration and explanation of this stage, including fireproofing methods.

2.1.3.4.2 Structural Drawings:

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

2.1.3.4.3 Mechanical Drawings:

1. Site Plan showing service entrances for water supply, sanitary and storm drains and connections to public utility services, including all key invert elevations.
2. Drawings showing preliminary sizing of ventilation, cooling and heating systems showing locations, and all major equipment layouts in mechanical rooms.
3. Drawings of plumbing system, showing routing and sizing of major lines and location of pumping and other equipment where required.
4. Drawings of the fire protection systems showing major components.
5. Produce preliminary designs based on the approved concept. Update the energy analysis and energy budget established at the concept design stage.
6. Update the schedule of requirements.
7. Provide information of all internal and external energy loads in sufficient detail to determine the compatibility of the proposal with existing services, approved concept and energy budget.
8. Analysis of selected equipment and plant with schematics and calculations sufficient to justify the economy of the selected systems.

9. Describe the mechanical systems to be provided and the components of each system. Describe the perceived operation of the mechanical systems.
10. Explain what operating staff will be needed to operate the building systems and the expected functions of the operation staff.
11. Describe the building systems control architecture. Provide preliminary Energy Monitoring and Control System (EMCS) network architecture, mechanical control schematics, and sequence of operation.
12. Explain what acoustical and sound control measures are to be included in the design.

2.1.3.4.4 Electrical drawings:

Provide drawings showing advanced development of the following:

1. Single line diagram of the power circuits with their metering and protection, including:
 - a. Complete rating of equipment.
 - b. Ratios and connections of CT's and PT's.
 - c. Description of relays when used.
 - d. Maximum short circuit levels on which design is based.
 - e. Identification and size of services.
 - f. Connected load and estimated maximum demand on each load centre.
2. Electrical plans with:
 - a. Floor elevations and room identification.
 - b. Legend of all symbols used.
 - c. Circuit numbers at outlets and control switching identified.
 - d. All conduit and wire sizes except for minimum sizes which should be given in the specification.
 - e. A panel schedule with loadings for each panel.
 - f. Telephone conduits system layout for ceiling/floor distribution.
3. Riser diagrams for lighting, power, telephone and telecommunication cable systems, fire alarm and other systems.
4. Elementary control diagrams for each system.
5. Schedule for motor and controls.
6. Complete lighting layout and fixture schedule clearly indicating methods of circuiting, switching and fixture mounting.
7. Electric heating layout and schedule.
8. Provide the following data:
 - a. Total connected load.
 - b. Maximum demand and diversity factors.
 - c. Sizing of standby load.
 - d. Short-circuit requirements and calculations showing the ratings of equipment used.

2.1.3.4.5 Commissioning

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

RS 2.1.4 CONSTRUCTION DOCUMENTS, PRE-TENDER CONSTRUCTION COST ESTIMATE AND PROJECT SCHEDULE

2.1.4.1 INTENT

The purpose of this stage is to prepare drawings and specifications setting forth in detail the requirements for the construction and final cost estimate of the project.

1. 33% indicates technical 33% completeness of all working documents
2. 50% indicates substantial technical development of the project – advanced architectural and engineering plans, details, schedules and specifications
2. 66% indicates substantial technical development of the project - well advanced architectural and engineering plans, details, schedules and specifications
3. 99% is the submission of complete Construction Documents ready for tender call and submission to local authorities for pre-permit purposes
4. Develop project specific Systems Operations Manual (SOM)
5. Final Submission incorporates all revisions required in the 99% version and is intended to provide PWGSC with complete construction documents for tender call.

2.1.4.2 SCOPE AND ACTIVITIES:

1. The Consultant shall, after acceptance of the Design Development documents by the Departmental Representative and after receiving a written directive to proceed, prepare and:

- a. submit for review to the Departmental Representative construction documents detailing the requirements for the construction of the Project at each stage of completion as specified in the project Terms of Reference;
- b. submit an updated Cost Plan including a Construction Cost Estimate and Project Schedule at each specified stage of completion; and
- c. provide copies of all construction documents submitted, in the type and number specified in AA 2.4.

2. The Consultant shall prepare for tender call purposes and submit to the Departmental Representative for acceptance a final Class A Construction Cost Estimate based on the approved construction documents, together with a breakdown thereof, and an updated Project Schedule.

3. Activities are similar at all stages specified in the project Terms of Reference (33%, 50%, 66%, 99%, final) and the completeness of the documentation should reflect the stage of each submission.

- a. Obtain Departmental Representative's approval for at each submission
- b. Confirm format of drawings and specifications
- c. Clarify special procedures (i.e. phased construction)
- d. Submit drawings and specifications at the required stages
- e. Provide written response to all review comments and incorporate them into the Construction Documents where required.
- f. Advise as to the progress of cost estimates and submit updated cost estimates as the project develops
- g. Update the project schedule
- h. Prepare a final Class 'A' estimate. Review and approve materials and construction processes specifications to meet sustainable development objectives.
- i. Provide copies of all construction and pre-bid/pre-tender documents in the type and number specified in AA 2.4.

2.1.4.3 SCOPE AND ACTIVITIES - DETAILS

2.1.4.3.1 Technical and Production Meetings

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

2.1.4.3.2 Progress Review

1. As work progresses on construction drawings, submit drawings, schedules, details, pertinent design data and updated Cost Plan and Project Schedule as required.
 1. Mechanical:
 - a. Flow diagrams, system layouts, equipment selections and sizes, floor plan layouts showing major equipment.
 - b. All major ductwork sized and shown on drawings including layout of all major mechanical and transformer rooms.
 - c. EMCS network architecture, mechanical control schematics, sequence of operation for each mechanical system, electrical control schematics, DDC input/output point schedules.
 - d. Commissioning Plan in accordance with PWGSC Commissioning Guidelines: CP.3 - Guide to the development of the Commissioning Plan, latest edition.
 - e. Update the building load calculation, energy analysis and energy budget.
 - f. Submit at the stipulated progress submission all calculations for mechanical design and equipment selection. These calculations shall be bound (3-ring binder) and indexed.
 2. Calculations submitted shall not necessarily be reviewed. They are required for record purposes and in certain instances to assist in the understanding and interpretation of designs. Calculations shall be submitted in a format that is legible, neat and easily understandable.
 3. Specifications and an index of specifications. The specifications shall consist of typed and edited PWGSC amended NMS sections, PWGSC in-house master specs sections and NMS sections.

2.1.4.4 DELIVERABLES:

Deliverables are similar at all stages and the completeness of the project development should reflect the stage of a submission. For example:

.1 99% Submission:

- a. Complete specification and working drawings.
- b. Room Finish Schedules, Door and Frame Schedules, Door Hardware Schedule
- c. Commissioning Plan and Systems Operations Manual
- d. One copy of the complete colour schedules, including textures, sheens, super-graphics, colour chips and material samples.
- e. One copy of site information, soil investigating report, borehole logs, etc.
- f. One copy of support data, studies, calculations, etc., required by PWGSC for final checking and record.
- g. One copy of updated Cost Plan and Project Schedule

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.2 Final Submission:

1. This submission incorporates all revisions required by the review of the 99% submission.
Provide the following:
 - a. Complete set of originals of the working drawings.
 - b. Complete sets of original specifications.
 - c. Room Finish Schedules, Door and Frame Schedules, Door Hardware Schedule
 - d. Class 'A' cost estimate
 - e. Complete Commissioning Plan
 - f. Complete Systems Operations Manual
 - g. Complete set of original Colour Schedule and 2 copies of colour board samples.
 - h. One set of soil investigating report with amendments if any.
 - i. One set of designated substance survey report.
2. As a safeguard against loss or damage to the originals, retain a complete set of drawings in reproducible form and one copy of the specifications.
3. Inspection Authorities Submission
 - a. Submit and obtain approval on plans and specifications required by Inspection Authorities before tender call.

RS 2.1.5 TENDER CALL, BID EVALUATION AND CONSTRUCTION CONTRACT AWARD

2.1.5.1 INTENT:

The purpose of this stage is to obtain and evaluate bids from qualified contractors to construct the project as per the Tender Documents. To award the construction contract according to government regulations, including Federal Rules for Bid Depositories.

2.1.5.2 SCOPE AND ACTIVITIES:

1. General:

The Consultant shall:

1. Attend tenderers briefing meeting(s)
2. Prepare addenda based on questions arising in such meetings for issue by the Departmental Representative
3. Provide the Departmental Representative with all information required by tenderers to fully interpret the Construction Documents. The Departmental Representative will issue the addenda to all participants.
4. Keep full notes of all inquiries during the bidding period and submit same to Departmental Representative at the end, for PWGSC records.
5. Assist in tender evaluation by providing advice on the following:
 - a. The completeness of tender documents in all respects.
 - b. The technical aspects of the tenders.
 - c. The effect of alternatives and qualifications which may have been included in the tender.
 - d. The tenderers capability to undertake the full scope of work.
 - e. The availability of adequate equipment to carry out the work.
6. If PWGSC decides to re-tender the project, provide advice and assistance to the Departmental Representative.
7. Revise and amend, at your cost, the construction documents to bring the cost of the work within the limits stipulated.
8. Examine and report on any cost and schedule impact created by the issue of tender / contract addenda.
9. Provide copies of all documents in the type and number specified in AA 2.4.

2. Tender Call:

1. The Consultant shall, after acceptance of the final submission of the construction documents by the Departmental Representative, provide one (1) complete set of the approved working drawings signed, sealed and dated by a Professional, licensed in the Province of Ontario, for each of their respective disciplines: Licensed Architect in Ontario (OAA member), Professional Engineer (P. Eng) for engineering discipline, Licensed Interior Designer (ARIDO member), digitally, suitable for reproduction, and two (2) sets of the approved specifications, one set to be suitable for reproduction and the other set to be properly bound and covered.

2. The Consultant shall, on request:

- a. provide the Departmental Representative with information required for interpretation and clarification of the construction documents;
- b. assist in the evaluation and approval of equivalent alternative materials, methods and systems;
- c. assist with the preparation of addenda;
- d. attend job or site showings as required.

3. Bid Evaluation and Construction Contract Award:

1. The Departmental Representative shall be responsible for assembling and issuing tender documents and arranging for the receipt of tenders and awarding of the Construction Contract.
2. The Consultant shall, on request:
 - a. review and evaluate the bids received for the construction of the Project, and advise on their relative merits and/or shortcomings.
 - b. provide information to support price negotiations.

2.1.5.3 DELIVERABLES:

The Consultant shall provide the following:

1. Originals of drawings and specifications
2. Electronic copies of drawings and specifications.
3. Addenda as required
4. Changes to the documents, if re-tendering is necessary
5. Updated cost estimate and/or schedule
6. Issued for construction documents (drawings and specifications), if applicable

RS 2.1.6 CONSTRUCTION AND CONTRACT ADMINISTRATION

2.1.6.1 INTENT:

The purpose of this stage is to implement the project in compliance with the Contract Documents and to direct and monitor all necessary or requested changes to the scope of work during construction.

2.1.6.2 SCOPE AND ACTIVITIES:

The Consultant shall:

1. During the implementation of the project, act on PWGSC's behalf to the extent provided in this document;
2. Carry out the review of the work at intervals appropriate to determine if the work is in conformity with the Contract Documents and the municipality and building code requirements; the number of site visits to be determined at call-up;
3. Keep PWGSC informed of the progress and quality of the work and report any defects or deficiencies in the work observed during the course of the site review; take digital photographs of work in progress and of any defects; submit regular field review reports;
4. Ensure compliance with Commissioning Plan, update plan as necessary;
5. Determine the amounts owing to the Contractor based on the progress of the work and certify payments to the Contractor;
6. Act as interpreter of the requirements of the Contract Documents;
7. Provide cost advice during construction;
8. Advise the Departmental Representative of all potential changes to scope for the duration of the implementation;
9. Review the Contractor's submittals;
10. Prepare and justify change orders for issue by the Departmental Representative;
11. Indicate any changes or material/equipment substitutions on Record Documents;
12. During the twelve (12) month warranty period investigate all defects and alleged defects and issue the instructions to the Contractor;
13. Prepare and post Systems Operating Instructions;
14. Finalize Systems Operations Manual;
15. Conduct a final warranty review.

2.1.6.3 SCOPE AND ACTIVITIES - DETAILS

The Consultant shall:

2.1.6.3.1 Construction Meetings

1. Immediately after contract award, arrange a briefing meeting with the Contractor and the Departmental Representative. Prepare minutes of the meeting and distribute copies to all participants and to other persons agreed upon with the Departmental Representative.
2. Call site meetings as frequently as required, commencing with the construction briefing meeting. The meetings should include the job superintendent, Inspector of Construction main sub-subcontractors, affected sub-consultants and Government Services representatives as necessary. Prepare minutes of the meeting and distribute copies to all participants. The Departmental Representative may invite Client Departments to attend any of these meetings.
3. Advise the Departmental Representative of the dates and times of the proposed meetings;
4. Attend all such meetings; and
5. Maintain a record of the proceedings of such meetings and provide the Departmental Representative with a copy thereof within a maximum of five (5) working days of the meeting.

2.1.6.3.2 **Project and Construction Schedule**

1. As soon as practical after the award of the Construction Contract, request from the Contractor a detailed construction schedule, and, after review for conformity with the Project Schedule and implementation of necessary adjustments, forward two (2) annotated, signed "Reviewed and Accepted" and dated copies of the Consultant-accepted construction schedule to the Departmental Representative;
2. Obtain Construction Schedule with detailed commissioning component shown separately, as soon as possible after contract award and ensure proper distribution.
3. Monitor the approved construction schedule, take necessary steps to ensure that the schedule is maintained and submit a detailed report to the Department concerning any delays.
4. Report to the Departmental Representative the progress of the construction.
5. Notify the Departmental Representative of any known and anticipated delays which may affect the completion date of the Project, and keep accurate records of the causes and duration of delays. Make every effort to assist the Contractor to avoid delays.

2.1.6.3.3 **Time Extensions**

1. Not approve any requests for time extensions. The Departmental Representative shall evaluate all requests from the Contractor for time extensions, and shall issue directions to the Contractor and the Consultant. Only the Department may approve any request for Time Extensions. Approval will be issued in writing by the Departmental Representative.

2.1.6.3.4 **Cost Breakdown**

1. Obtain from the Contractor detailed cost breakdown on standard PWGSC form and submit to the Departmental Representative with the first Progress Claim.

2.1.6.3.5 **Changes to List of Sub-Contractors**

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

2.1.6.3.6 **Labour Requirements**

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

2.1.6.3.7 **Bylaw Compliance**

1. Ensure that construction complies with applicable bylaws and regulations.
2. Matters pertaining to the Department of Labour shall be referred to the Departmental Representative.

2.1.6.3.8 **Construction Safety**

1. All construction projects that are occupied by federal employees during construction are subject to the Canada Occupational Safety and Health Act and Regulations as administered by Health and Welfare Canada.
2. In addition to the above, the Contractor must comply with the provincial and municipal safety laws and regulations, and with any instructions issued by the officers of these authorities having jurisdiction relating to construction safety.
3. Ensure the Contractor is mandated to provide all required coordination, isolation, protection and

reinstatement of the fire protection and suppression systems throughout construction. Notify the Property Manager each time the fire protection and suppression systems are bypassed and advise of estimated reinstatement time. Ensure the Contractor is mandate to provide Watchman Service.

2.1.6.3.9 **Site Visits**

1. Provide non-resident construction review services to meet municipal and building code obligations and ensure compliance with contract documents.
2. Provide services of qualified personnel who are fully knowledgeable with technical and administrative requirements of project.
3. Establish a written understanding with contractors as to what stages or aspect of the work are to be inspected prior to being covered up.
4. Assess quality of work and identify in writing to the Contractor and to the Department all defects and deficiencies observed at time of such inspections.
5. Inspect materials and prefabricated assemblies and components at their source or assembly plant, as necessary for the progress of the project.
6. Any directions, clarifications or deficiency list shall be issued in writing to PWGSC.
7. Record and report to the Departmental Representative on the progress, non-conformities and deficiencies observed during each site visit, and provide the Contractor with written progress reports and lists of deficiencies observed; take digital photographs of the progress of the work and work to be rectified; include photographs into the reports; and recommend the action to be taken.
8. Assist PWGSC in ensuring prompt implementation by the Contractor of all remedial actions which have been accepted by the Departmental Representative in writing, and issue a written confirmation of their completion to the Departmental Representative and to the Contractor.

2.1.6.3.10 **Clarifications and Interpretation:**

1. Provide clarification and interpretation of the construction documents or site conditions, in written or graphic form, as required in order that project not be delayed, to the Contractor with a copy to the Departmental Representative, for the proper execution and progress of the construction as and when necessary.

2.1.6.3.11 **Progress Reports**

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

2.1.6.3.12 **Work Measurement**

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

2.1.6.3.13 **Detail Drawings**

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

2.1.6.3.14 **Shop Drawings**

1. 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's departmental review.
2. Specify in the construction documents the shop drawings that are to be submitted by the Contractor;
3. Review and take other appropriate action with reasonable promptness upon such 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.
4. Review in a timely manner the shop drawings provided by the Contractor to determine

conformity with the general design concept and intent of the construction documents and indicate to the Contractor such conformance with the general concept or lack thereof; and provide the Departmental Representative with one (1) signed "Reviewed and Accepted" and dated copy when such conformity is confirmed.

5. Verify that shop drawings include the project number and are recorded in sequence.
6. Shop drawings shall be stamped: "Checked and Certified Correct for Construction" by the Contractor and stamped: "reviewed with comments", "reviewed" or "rejected" by the Consultant before return to the Contractor.
7. Expedite the processing of Shop Drawings within the five (5) working days or the number of days agreed by the Departmental Representative.
8. On completion of project forward three copies of reviewed shop drawings to the Department. Ensure that shop drawings include the project number and are recorded in sequence.

2.1.6.3.15 Inspection and Testing

1. Recommend the need for, and review, test reports of materials or construction.
2. Specify in the construction documents product and performance testing to be undertaken by the Contractor.
3. Recommend quality assurance testing to be undertaken during construction, evaluate the results and advise the Departmental Representative accordingly.
4. Request the Contractor to take remedial action when observed material or construction fails to comply with the requirements of the Construction Contract, and advise the Departmental Representative accordingly.
5. Prior to tender, provide Department with recommended list of tests to be undertaken, including on site and factory testing.
6. Ensure all testing is detailed within commissioning plan.
7. When contract is awarded, assist Departmental Representative in briefing testing firm on required services, distribution of reports, communication lines, etc.
8. Review all test reports and take necessary action with Contractor when work fails to comply with contract.
9. Immediately notify Departmental Representative when tests fail to meet project requirements and when corrective work will affect schedule.
10. Assist Departmental Representative in evaluating testing firm's invoices for services performed.
11. Ensure that all specified testing, commissioning and other quality assurance specifications and recommendations are adequately implemented throughout the construction process.

2.1.6.3.16 Training

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

2.1.6.3.17 Changes to Construction Contract

1. The Consultant does not have authority to change the work or the price of the Contract.
2. Submit all requests and recommendations for changes to the Construction Contract and their implications to the Departmental Representative for approval
3. Changes which affect cost or design concept must be approved by the Department.
4. Upon Departmental approval obtain quotations from the Contractor in detail for contemplated changes, review the prices for acceptability and fairness, assess the effect on construction progress and completion date, and submit promptly recommendations to the Departmental Representative.
5. The Departmental Representative will issue Consultant-prepared Change Orders to the Contractor, with copy to Consultant. The Departmental Representative shall issue Change Orders for all approved changes.
6. All changes, including those not affecting the cost of the project, will be covered by Change Orders.
7. The practice of "trade offs" is not allowed.

2.1.6.3.18 Contractor's Progress Claims

1. Request from the Contractor a cost breakdown of the Construction Contract Award Price in detail appropriate to the size and complexity of the Project, or as may otherwise be specified in the Construction Contract, and submit the cost breakdown to the Departmental Representative prior to the Contractor's first progress claim.
2. Review the progress claim (request for progress claim), for work and materials as per the requirements of the Construction Documents, submitted each month by the Contractor.
3. Examine progress claims in a timely manner and, if acceptable, certify the progress claims for work completed and materials delivered pursuant to the Construction Contract, and submit them to the Departmental Representative for approval and processing.
4. If the construction is based on unit prices, measure and record the quantities of labour, materials and equipment involved for the purpose of certifying progress claims.
5. Verify at each progress payment that Contractor has accurately recorded information on the site as-built set of Contract Documents.
6. The claims are made by completing the following forms where applicable:
 - a. Request for Progress Payment
 - b. Cost Breakdown for Unit and/or combined Price Contract
 - c. Cost Breakdown for Fixed Price Contract
 - d. Statutory Declaration Progress Claim
7. Review and sign designated forms and promptly forward claims to the Departmental Representative for processing.
8. Submit with each progress claim:
 - a. Updated schedule of the progress of the work.
 - b. Detailed photographs of the progress of the work.

2.1.6.3.19 Materials On Site

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

2.1.6.3.20 Acceptance Board

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

2.1.6.3.21 Substantial Performance (Interim) Inspection

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

2.1.6.3.22 Certificate of Substantial Performance (Interim)

1. Review the construction with the Departmental Representative and the Contractor, and record all unacceptable and incomplete work detected.
2. Request from the Contractor, review for completeness and adequacy and provide the Departmental Representative with, all operation and maintenance manuals and any other documents or items to be provided by the Contractor, in accordance with the Construction Contract.
3. Prepare and submit to the Departmental Representative for approval and processing, and as a basis for payment to the Contractor, a Certificate of Substantial Performance (Interim) as required by the Construction Contract, together with supporting documents properly signed and certified.
4. Payment requires completion and signing, by the parties concerned, of the following documents:
 - a. Certificate of Substantial Performance

- b. Cost Breakdown for Fixed Price Contract
 - c. Cost Breakdown for Unit or Combined Price Contract
 - d. Inspection and Acceptance
 - e. Statutory Declaration Certificate of Substantial Performance
 - f. Workmen's Compensation Board Certificate.
5. Verify that all items are correctly stated and ensure that completed documents and any supporting documents are furnished to the Department for processing.

2.1.6.3.23 Building Occupation

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

2.1.6.3.24 Operation and Maintenance Data Manual

1. Operation and Maintenance Data Manual: four (4) sets of each volume produced by Contractor in accordance with Sections 01 11 01, 01 77 00, 01 78 00 of project specification and verified for completeness, relevance and format by the Architectural, Mechanical and Electrical Consultants and submitted to the Departmental Representative prior to interim acceptance or actual start of operation and instruction period, whichever occurs sooner. The Contractor shall retain one copy of each volume for his record and use during the instruction period.

2.1.6.3.25 Instruction of Operating Personnel

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

2.1.6.3.26 Keys

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

2.1.6.3.27 Final Inspection

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

2.1.6.3.28 **Certificate of Completion (Final)**

1. Advise the Departmental Representative when the construction has been completed in general conformity with the Construction Contract.
2. Make a final review of the construction with the Departmental Representative and the Contractor and, if satisfactory, prepare and submit to the Departmental Representative for approval and final payment to the Contractor, a Certificate of Completion (Final) as required by the Construction Contract, together with supporting documents properly signed and certified, including manufacturers' and suppliers' warranties.
3. The final payment requires completion and signing, by the parties concerned, of the following documents:
 - a. Certificate of Completion
 - b. Cost Breakdown for Fixed Price Contract
 - c. Inspection and Acceptance
 - d. Statutory Declaration Certificate of Completion
 - e. Cost Breakdown for Unit and/or Combined Price Contract
 - f. Workmen's Compensation Clearance Certificate
 - g. Certificate of Acceptance from Electrical Inspection Department
4. Verify that all items are correctly stated and ensure that completed documents and any supporting documents are furnished to the Department for processing.

2.1.6.3.29 **Take-over**

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

2.1.6.3.30 **As-Built and Record Drawings and Specifications**

1. Following the take-over and before issuance of the Certificate of Completion (Final), obtain as-built marked-up hard copy from the Contractor:
 - a. Show significant deviations in construction from the original Contract drawings, including changes shown on Post-Contract Drawings, changes resulting from Change Orders and/or from On Site Instructions.
 - b. Check and verify all as-built information provided by Contractor for completeness and accuracy and submit to PWGSC.
2. Produce Record Drawings by incorporating changes shown on Post-Contract Drawings, changes resulting from Change Orders and/or from On Site Instructions and As-Built information, into project drawings and specifications.
3. Verify that record drawings are suitable for digital printing or scanning, incorporating all recorded changes to the original working drawings based on as-built prints, drawings and other information provided by the Contractor, together with Change Orders and On Site Instructions.
4. Verify that record drawings are labeled "Record", dated and signed by the Consultant, and provide also a marked-up copy of the specifications recording changes related thereto.
5. Submit a complete set of Record Drawings and Specifications in number and format required by the Consultant Agreement within 8 weeks of final acceptance.
6. Provide a complete set of final shop drawings.

2.1.6.4 **DELIVERABLES:**

The Consultant shall provide the following:

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1. Written reports from site visits including persons involved
2. Written reports on the progress of the work and the cost of the project at the end of each month
3. Additional detail drawings when required to clarify, interpret or supplement the Construction Documents
4. Post -Contract drawings
5. Interim or Final certificates
6. Debrief of Commissioning Activities
7. As built drawings (hard copy provided by Contractor)
8. Record drawings and specifications
9. Progress photographs during construction and final photographs (digital format)
10. Warranty deficiency list
11. Report on Final Warranty Review

RS 2.1.7 COMMISSIONING

2.1.7.1 INTENT:

The Consultant shall provide commissioning services to verify that the Department's functional requirements are correctly interpreted during the design stage and contract documents, and that the building systems operate consistently at the peak efficiencies, under all normal load conditions, and within the specified energy budget.

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

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

The purpose of this stage is:

1. To define the operational and performance requirements of the Owner and User.
2. To ensure that responsibility for meeting these requirements and demonstrating compliance is defined in the design and contract documents.
3. To ensure that appropriate start-up and checkout procedures are employed for components, subsystems, including meaningful documentation for and certification of Quality Control reports and techniques under the normal **or enhanced** basic services and contractual procedures.
4. To ensure that the final product meets the specified requirements and the criteria set out in the project Terms of Reference.
5. To document the operations, maintenance and management requirements, and transferring the completed works to qualified facility operators.
6. To minimize the life-cycle operating and maintenance costs.
7. To verify that the Department's functional requirements are correctly interpreted during the design stage, and that the building systems operate consistently at peak efficiencies, under all normal load conditions **of the design intent**, and within the specified energy budget.

2.1.7.2 SCOPE AND ACTIVITIES:

The Consultant shall provide the services that include but not be limited to the following activities:

1. Provide complete documentation on the operations and maintenance requirements;
2. Prepare Systems Operations Manual (SOM). Contents of SOM and Contractor's Operation and Maintenance (O&M) manual shall be in accordance with PWGSC Project Commissioning Manual latest edition;
3. Carry out various checks and tests to determine if the new facilities function in accordance with the contract documents;
4. Attend the commissioning testing to ensure that proper protocols are being maintained.
5. Identify Contractor and Sub-contractor commissioning, performance verification (PV) and testing responsibilities;
6. Plan the PV activities, develop the installation checklists and PV report forms, and prepare a detailed verification schedule. PV tests will be performed by the Contractor and witnessed by the Consultant. Maintain detailed development reports and review with the Contractor for special systems such as Energy Monitoring and Control System (EMCS).
7. PV inspection forms will be completed for all components, subsystems, systems, and integrated systems, and a final performance verification report will be submitted to the Commissioning Manager.
8. Ensure that the documentation and testing reports from the Commissioning Manager are

-
- submitted to the Departmental Representative in a proper, timely and organized fashion.
9. Prepare a training plan for the O&M staff to be trained on the operations of the new facilities. The training plan will recognize both short-term and long term requirements and shall employ both hard copy and visual techniques.

2.1.7.3 SCOPE AND ACTIVITIES - DETAILS:

1. The project will be accepted and the Certificate of Substantial Completion will be issued only after the Contractor meets the requirements of the contract and:
 - a. Successful completion of integrated systems tests, life safety support systems tests and after meeting all requirements of the authority having jurisdiction.
 - b. All test certificates, commissioning reports and commissioning documentation have been approved by the Departmental Representative.
2. During the Construction Phase, the Consultant shall:
 - a. Monitor and report on contract commissioning activities.
 - b. Review and certify verification sheets as they are completed by the Contractor.
 - c. Review commissioning schedule.
 - d. Witness all component, system and integrated systems tests.
 - e. Review and comment on commissioning test results.
 - f. Provide advice and recommendations for fine tuning.
 - g. Finalize the Design Intent Report and Client / Users O&M Manual to reflect as-commissioned operation and maintenance of each system.

2.1.7.4 DELIVERABLES:

The Consultant shall provide the following:

1. Commissioning Plan,
2. Commissioning Specifications in Div 01,
3. CV Sheets to be executed by the Contractor,
4. Performance Verification Testing (PVT) Sheets to be executed by the Contractor,
5. Reviewed and Accepted Commissioning (Evaluation) Report.

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RS 2.1.8 POST-CONSTRUCTION WARRANTY REVIEW

The Consultant shall:

1. Review if requested, during the Contractor's warranty period, any defects reported by the Departmental Representative.
2. 30 days prior to the expiry of any warranty period, visit the site, and record any defects observed or reported at the end of any warranty period, carry out a final review of the Project and report to the Departmental Representative the status of defects.
3. If the Departmental Representative accepts the rectification of the defects, a notice of "Final Warranty Inspection" shall be issued to the Contractor.

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RS 2.2 ADDITIONAL SERVICES

The Consultant shall coordinate and manage the additional services, listed below, provided by in-house resources, Sub-Consultants and /or Specialists* and required to complete project requirements in support of the requested services under a Call-Up.

*Sub-Consultants and/or Specialists refers to Consultants outside of those included in the Consultant's Team Identification, attached at Appendix C, and as identified under TP 10.2. (d) Disbursements.

The Consultant Team may be requested to provide one or more of the following services, either independently or as part of the project for the specific project Call-up:

RS 2.2.1 INVESTIGATIONS AND REPORTS

2.2.1.1 INTENT:

The Consultant may be requested to investigate a site condition or building condition to determine the life expectancy of the building system or component, the cause of the problem such as water leakage, structural deficiency, malfunction of mechanical and/or electrical systems; analyze the situation; record the conditions; and provide a recommendation for the repairs or improvement of the situation, or generate strategic options for future investment considerations to the property or building.

2.2.2.2 SCOPE AND ACTIVITIES:

1. The Consultant shall perform on site investigations and provide reports as required by the Department and shall include but not be limited to the following:

- a. Research and review original construction documents and any historical documents describing modifications to the site or building.
- b. Review site and/or building conditions and compare conditions to existing documents.
- c. Pursue more detailed investigation of site and/or building conditions including; deconstruction of components, with permission from the Departmental Representative, to determine a more comprehensive understanding of the existing conditions such as the composition of the built elements or the cause of the problem.
- d. Record findings of the investigation by recording in detail, including drawings and photographs, the location of the problem or situation, providing a description of the condition, the design capacity of the building system.
- e. Identify all deficiencies, potentials and constraints with the existing systems.
- f. Recommend alternative remedial measures for deficiencies and/or options for improvements.
- g. Prepare the report which includes the results of site investigations, review of the project scope of work and recommendations of alternative remedial measures for deficiencies and/or options for improvements and the associated cost and schedule implications of each option.

2.2.2.3 DELIVERABLES:

1. The Consultant shall, based on the specific requirements of the Call-up, provide the following:

- a. Building Condition Report (BCR)
- b. Investment Analysis Report IAR)
- c. Building Assessment report
- d. Roof Investigation/Assessment report as required

RS 2.2.2 FUNCTIONAL PROGRAMMING

2.2.2.1 INTENT:

The purpose of a Functional Program is to ensure the Consultant has gathered sufficient information to analyse the Client Department's functional and operational requirements, developed an understanding of the requirements for the building's infrastructure and applied the Government of Canada Workplace 2.0 Fit-up Standards. At the time of call-up, the Departmental Representative will identify the specific services required from Functional Programming Services and the extent of the information required to be included into the Functional Program Document.

2.2.2.2 SCOPE AND ACTIVITIES:

The Consultant shall:

1. Interview the users and stakeholders to determine the Client Department functional and operational requirements for staffing, support areas, an understanding of the requirements for expansion or downsizing of the operation, special purpose areas, spatial relationships and adjacencies, and the impact of these requirements on the base building's infrastructure.
2. Attend meetings, communicate with and coordinate the other consultants and specialists.
3. Develop the format for the Functional Program Document and draft 'Table of Contents'. Submission must also include as a minimum the formatting for spreadsheets, room data sheets, cost estimates, and reports. Submit for review. Revise as required. Resubmit for final approval.
4. Prepare, coordinate and assemble the following sections of the Functional Program Document, as required by the specific Call-up:
 - a. Administrative Space Recommendations Report
 - b. Support Space Recommendations Report
 - c. Special Purpose Space Recommendations Report
 - d. Highly Specialized Special Purpose Spaces Report
 - e. Functional Space Equation (Space Analysis Requirement)
 - f. Gap Analysis
 - g. Proximity Recommendations Report
 - h. Security Recommendations Report
 - i. Communications/Data Recommendations Report
 - j. Audio-Visual Recommendations Report
 - k. Furniture and Workstations Recommendation Report
 - l. Existing Building Finishes Report, if applicable
 - m. Room Data Sheets
 - n. Horizontal Zoning Plans
 - o. Vertical Stacking Diagrams
 - p. Zoning (Bubble) Diagram
5. Consolidate the sections of the Functional Program Document

2.2.2.3 DELIVERABLES - DETAILS:

The Consultant shall, based on the specific requirements of the call-up, provide the following:

1. ADMINISTRATIVE SPACE RECOMMENDATIONS REPORT

1. Gather and document the Client Department's administrative space requirements in a written and

graphic format including but not limited to all workstation type and finishes.

2. Analyse information gathered and make recommendations in accordance with the Government of Canada Workplace 2.0 Fit-up Standards and provide the following:
 - a. Identification of opportunities for space consolidation;
 - b. A document indicating the effects of each of the proposed planning alternatives, based on the Client Department mission statement, functional requirements, space allocation, and project budget. Provide written justification and rational for each of the planning alternatives.
3. Submit for review. Revise as required. Resubmit for final approval.

2. SUPPORT SPACE RECOMMENDATIONS REPORT

1. Gather and document the Client Department's support space requirements in a written and graphic format including but not limited to all work station type and finishes, i.e. systems furniture, free-standing, soft seating, case goods etc., electrical, telephone and data requirements.
2. Analyse information gathered and make recommendations for support space in accordance with the Government of Canada Workplace 2.0 Fit-Up Standards and provide the following:
 - a. Identification of opportunities for space consolidation.
 - b. A document indicating the effects of each of the proposed planning alternatives, based on the Client Department mission statement, functional requirements, space allocation, and project budget. Provide written justification and rational for each of the planning alternatives.
 - c. Requirements for off-site support spaces, if applicable, must also be included and clearly noted as such.
3. Submit for review. Revise as required. Resubmit for final approval.

3. SPECIAL PURPOSE SPACE RECOMMENDATIONS REPORT

1. Gather and document the Client Department's special purpose space requirements in a written and graphic format including but not limited to all work station type and finishes, i.e. systems furniture, free-standing, soft seating, case goods etc., electrical, mechanical, telephone and data requirements.
2. Analyse information gathered and make recommendations based on the Government of Canada Workplace 2.0 Fit-Up Standards and the Client Department's functional requirements and proposed planning alternatives, for layouts for each of the special purpose spaces, including but not limited to furniture type, layout, and mechanical and electrical requirements;
3. A comparative (i.e. quantitative and qualitative) analysis between existing special purpose space and each of the proposed special purpose space planning alternatives in sufficient detail to facilitate selection by the Client Department;
 - a. Identify options for space optimization, and use of multipurpose spaces, etc.;
 - b. Identify requirements for off-site special purpose spaces, if applicable, must also be included and clearly noted as such.
 - c. Prepare a workflow diagram.
 - d. Ensure funding mechanism for any special purpose space has been identified. As required, provide justification regarding technical requirements and estimated fees related to the fit-up of special purpose spaces.
 - e. Seek approval of the special purpose space from the appropriate Client Department representative through the Departmental Representative.
4. A document indicating the effects of each of the proposed special purpose space planning alternatives, based on the Client Department mission statement, functional requirements, space allocation, and project budget. Provide written justification and rational for each of the planning alternatives.
5. Submit for review. Revise as required. Resubmit for final approval.

4. HIGHLY SPECIALIZED SPECIAL PURPOSE SPACES'

1. Provide the identified services described in the Required Services (RS) section of this document as they pertain to the fit-up of special purpose spaces that far exceed a standard fit-up in terms of the complexity of the technical and/or functional requirements involved.
2. Submit for review. Revise as required. Resubmit for final approval.

5. FUNCTIONAL SPACE EQUATION (SPACE ANALYSIS REQUIREMENT)

1. Prepare a detailed functional space equation in a spreadsheet format. The functional space equation must identify space requirements (in m²) by group along with summary of the total space required for all groups for the following current and future requirements:
 - a. Approved staff listings including as a minimum all full time and part time employees, students. List by person, group, section, division etc.;
 - b. Open workstations;
 - c. Enclosed workstations;
 - d. Support space;
 - e. Collaborative Space;
 - f. Special purpose space;
 - g. Circulation factor;
 - h. Building loss factor;
 - i. Total population;
 - j. Total space required;
 - k. Summary by group and Department; and,
 - l. Non-complaint versus complaint spaces.
2. Identification of requirements for off-site special purpose spaces, if applicable, must also be included and clearly noted as such.
3. Submit for review. Revise as required. Resubmit for final approval.

6. GAP ANALYSIS

1. Prepare a gap analysis in graphic format using the Government of Canada Workplace 2.0 Fit-Up Standards, and the Space Allocation Limits of the Framework for Office Accommodation and Accommodation Services. Gap analysis must identify open and closed office, support space, special purpose space and items, which exceed the standards.
2. Calculations for Space Allocation Limits will be provided at the time of Call-Up.
4. Consultant to document all non-compliant items complete with justifications (provided by Client Department).
3. Identify, highlight and clarify all additional costs, which are outside the Government of Canada Workplace 2.0 Fit-Up Standards. Outline in the gap analysis, who is responsible for the additional costs.
5. Submit for review. Revise as required. Resubmit for final approval.

7. PROXIMITY RECOMMENDATIONS REPORT

1. Document the Client Department's current and future proximity requirements for staff (by person-to-person, group-to-group, section-to-section etc.), support spaces and special purpose spaces. Examine the effect these may have on other functional requirements and proposed planning alternatives and make recommendations.
2. Prepare work flow diagrams for support and/or special purpose spaces.
3. Prepare proximity diagram that documents Client Department's functional requirements in a graphic format. Prioritize level of importance for each proximity requirement identified.
4. Submit for review. Revise as required. Resubmit for final approval.

8. SECURITY RECOMMENDATIONS REPORT

1. Prepare a report to document the Client Department's current and future security requirements

and the effect these may have on other functional requirements and proposed planning alternatives.

2. Coordinate with the Client Department's security representative and Threat Risk Assessment.
3. Recommend any necessary modifications to the base building. Assess the impact of these modifications on overall space, time and budget.
4. Make specific and detailed recommendations based on additional client requirements, i.e. TRA or operational needs approved by Departmental Security Officer (DSO). Prepare a detailed list justifying the recommendations.
5. Coordinate work performed by Mechanical and Electrical sub-consultants and incorporate into Security Recommendations Report.
6. Submit for review. Revise as required. Resubmit for final approval.

9. COMMUNICATIONS/DATA RECOMMENDATIONS REPORT

1. Prepare a report to document the Client Department's current and future communications/data requirements and the effect these may have on other functional requirements and proposed planning alternatives. Report to be in accordance with the Government of Canada Workplace 2.0 Fit-Up Standards.
2. Prepare recommendations and all necessary modifications to the base building. Assess the impact of those modifications on overall space, time and budget.
3. Coordinate work performed by Mechanical and Electrical sub-consultants and incorporate into the Communications/Data Recommendations Report.
4. Submit for review. Revise as required. Resubmit for final approval.

10. AUDIO-VISUAL RECOMMENDATIONS REPORT

1. Gather and document the Client Department's audio-visual requirements in a written and graphic format including existing and new equipment, whiteboards, projector screens and other components requirements including the power, data and audio-visual cabling to support the operation of the equipment.
2. Analyse information gathered and make recommendations for the compatibility of the equipment, if used within the same room and/or a mixture of existing and new equipment, and any additional requirements to accommodate the audio-visual equipment in the meeting rooms, training rooms or special purpose rooms requirements in accordance with the Government of Canada Workplace 2.0 Fit-Up Standards.
3. Provide recommended layouts for locating the audio-visual equipment within the specific rooms.
4. Prepare a class 'C' cost estimate for the procurement of new equipment and the installation of the equipment for Client Department's budget purpose of procuring their audio-visual equipment contract.
5. Submit for review. Revise as required. Resubmit for final approval.

11. FURNITURE AND WORKSTATIONS RECOMMENDATIONS REPORT

1. Gather and document the Client Department's furniture and workstations requirements in a written and graphic format including all workstation type and finishes, i.e. systems furniture, free-standing, soft seating, case goods etc., electrical, telephone and data requirements.
2. Analyse information gathered and make recommendations for the development of workstations standards in accordance with the Government of Canada Workplace 2.0 Fit-Up Standards and provide the following:
 - a. Recommendations based on the Client Department functional requirements and proposed planning alternatives, for layouts for each category of furniture and workstations required (including as a minimum furniture type, layout, panel screen height(s) and widths and power requirements);
 - b. A comparative (i.e. quantitative and qualitative) analysis between existing furniture and workstations and each of the proposed planning alternatives in sufficient detail to

facilitate selection by the Client Department;

- c. A document indicating the effects of each of the proposed planning alternatives, based on the Client Department mission statement, functional requirements, space allocation, and project budget. Provide written justification and rationale for each of the planning alternatives.
 - d. A maximum of three (3) layouts for each category of workstation required;
3. Submit for review. Revise as required. Resubmit for final approval.

12. EXISTING BUILDING FINISHES REPORT

1. In cases where the Functional Program is being undertaken with the intent to re-use the existing space(s), prepare a detailed list of finishes both in report and drawing formats, including drawings, list of components, description of item, building finish and colour, and an assessment of the finishes that are in a satisfactory condition and could be reused. Prepare a list of items including but not necessarily limited to:
 - a. Ceilings;
 - b. Lighting fixtures (accent and base building);
 - c. Carpets;
 - d. Hardware (doors, door hardware, glazing, and;
 - e. Fixtures (water fountains, built-in furniture, etc.).
2. Submit for review. Revise as required. Resubmit for final approval

13. ROOM DATA SHEETS

1. Compile all the data per room function (number of occupants; area in m²; critical dimensions; functional and operational requirements; essential proximity; unique characteristics or features of space; architectural requirements: wall type, STC rating, fire resistance rating, wall finishes, floor and ceiling finishes, doors/door frames and interior glazing, millwork, specialties (i.e. tackboards, whiteboards, tack strips, chair rail, corner guards); structural requirements; mechanical requirements: HVAC, plumbing; electrical requirements: power and lighting; Telecommunications requirements: voice, data and equipment; furniture and equipment requirements; security requirements: door hardware, duress alarm, security system such as motion detector, door contact, card access, camera; audio-visual requirements: equipment, black out blinds, projector screen, remote control, lighting control; signage requirements; other special requirements) for each typical and special purpose room and prepare room data sheet as per the approved room data sheet format.
2. Submit for review. Revise as required. Resubmit for final approval.

14. HORIZONTAL ZONING PLANS

1. Prepare horizontal zoning plans (i.e. block plans) per floor based on the Client Department's approved functional program, and vertical stacking. Number of plans, to be identified, at time of Call-up.
2. Include identification of all areas and location of all main circulation aisles, designation (in m²) and position level for workstations/work settings, and designation (in m²) for support spaces and special purpose spaces. Units, divisions etc. must also be identified. Consultant to also provide a count of number of users per group and per floor.
3. Submit for review. Revise as required. Resubmit for final approval.

15. VERTICAL STACKING DIAGRAMS

1. Prepare vertical stacking plans for each building based on the Client Department's approved functional program, proximity requirements, and space equation.
2. Number of diagrams, to be identified, at time of Call-up.
3. Submit for review. Revise as required. Resubmit for final approval.

16. ZONING (BUBBLE) DIAGRAM

1. Prepare zoning (bubble) diagrams based on the Client Department's functional program, space allocation and horizontal zoning plans, for all spaces forming part of the project.
2. Number of diagrams to be identified at time of Call-up
3. Zoning (bubble) diagrams are to include as a minimum the following:
 - a. Identification and location of hard walls/partitions;
 - b. Identification of primary and secondary circulation aisles;
 - c. Identification of functional areas (group and position titles/position levels or names) and area designation (in m²) for workstations (by group/position names); and
 - d. Identification and area designation (in m²) for support spaces and special purpose spaces.
4. Submit for review. Revise as required. Resubmit for final approval.

17. CONSOLIDATION OF FUNCTIONAL PROGRAM DOCUMENT

1. Consolidate the functional requirements information, including sub-consultant and specialist work into the Functional Program Document as per the approved format.
2. When conflicting requirements or recommendations occur, provide an integrated recommendation together with adequate justification.
3. Prior to final submission of the final functional program document, it is the Consultant's responsibility to ensure that all requirements, which are NOT part of Government of Canada Workplace 2.0 Fit-Up Standards, have been clearly identified.
4. Submit for review. Revise as required. Resubmit for final approval.

RS 2.2.3 FEASIBILITY STUDIES

2.2.3.1 INTENT:

The Consultant shall prepare feasibility studies for building requirements, site plan and space planning designs for both new, and proposed additions. Cost studies, graphic representations, etc. are to accompany the text document to further clarify or explain the rationale for decisions.

The Consultant shall attend client and stakeholder meetings to gather and present information. The Consultant shall also record and distribute minutes at a frequency to be determined in conjunction with the Departmental Representative.

2.2.3.2 SCOPE AND ACTIVITIES:

The Consultant shall provide:

1. a written verification of project requirements that includes objectives, parameters, timelines and budget, with reference to roles and responsibilities, lines of communications, and submission requirements for approvals, presentations, reviews.
2. a project schedule with periodic updating as determined with the Departmental Representative;
3. assistance in preparing a risk management report for the Departmental Representative.
4. implementation strategies that document task/activities, milestones, process for information gathering, project goals and deliverables.
5. an existing building condition report where there is an intention to renovate.
6. a Security Recommendations Report of the Client Department's current and future security requirements and the effect they may have on the feasibility studies.
7. a Communication/Data Recommendations Report of the Client Department's current and future requirements and the effect they may have on the feasibility studies.
8. verification of on-site conditions through the preparation and updating of master drawings to scale and in an approved AutoCAD format.
9. building capability recommendations report to address current and future interior and exterior conditions, systems, access, conveying systems, washrooms, and other items that are likely to affect the Client Department's requirements.
10. preliminary sustainability recommendations report which may include information related to reuse, recycling, waste diversion, energy and water efficiency in facilities and use of durable materials.
11. Furniture and Workstation Recommendation Report that addresses all current and future workstation types, electrical, voice and data, and the implications of panel design, space allocation on the Client Department fit-up standard as indicated in a maximum of three (3) layouts for each category of workstation.
12. Support and Special Purpose Space Recommendations Report including opportunities for space consolidation, with the intent of conforming to the Client Department Fit-up Space requirements.
13. Functional Space Equation that addresses the space requirements in square meters (sm) along with the summary of the total space required for all groups for current and future requirements for open and enclosed workstations, support space, circulation and the other applicable areas, including off-site special purpose spaces.
14. gap analysis to indicate fit-up standard non-compliance.
15. vertical and/or horizontal stacking diagrams based on Client Departments approved functional program, proximity requirements and space equation.
16. horizontal zoning plans per floor that is based on Client Department's approved functional program.
17. Cost estimates (Elemental Cost Analysis) in a format acceptable to the Departmental Representative.
18. mechanical and electrical engineering design concept and solutions to be based on Client Departments project requirements (number of options to be determined at time of Call-up);

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PWL027

Client Ref. No. - N° de réf. du client
EQ754-161519

File No. - N° du dossier
PWL-5-38131

CCC No./N° CCC - FMS No./N° VME

19. Feasibility Study Document that consolidates all the requirements of the complete exercise with allowance for resubmission for final approval after predetermined reviews by the Departmental Representative.

RS 2.2.4 INTERIOR DESIGN

2.2.4.1 INTENT:

The Consultant shall prepare concept designs for space planning and furniture layout leading to contract documents that are compliant with the latest version of building codes and fire code. Colour boards and material selection that addresses sustainable initiatives, corporate imagery, and fit up standards are to be included in the scope of work. For standards relating to the required services described in this Standing Offer, refer to the "Government of Canada Workplace 2.0 Fit-Up Standards" and the standards set out therein shall be adhered to. It is critical that all requirements that exceed or DO NOT form part of the "Government of Canada Workplace 2.0 Fit-Up Standards" be clearly identified and highlighted. Document and assist in identifying all requirements that exceed or are NOT part of the standards. All non-compliant components must respect the Fit-up Standards Approval and Governance process. Estimates and specifications including phasing strategy for swing space are to be addressed and represented in graphic fashion, with presentations made to the client group and Departmental Representative. Designated substance reports are to be reviewed for impact on finishes removal. Recycling initiatives for furniture and screens, as well as coordination with mechanical, electrical and telecommunications items for relocation are to be included in the overall submission package.

2.2.4.2 SCOPE AND ACTIVITIES:

The Consultant shall:

1. attend all meetings and presentations required for the project. Additional Consultant Team members' shall be required to attend project team meetings to address their particular areas of expertise during the different delivery stages for each call-up. The number and frequency of project team meetings will be determined at time of Call-Up.
2. ensure all sub-consultants attend as required throughout the various phases of the project.
3. record the issues, decisions and action items (with responsibility) at each meeting and prepare and distribute meeting minutes within 72 hours of the meeting. Meeting minutes must clearly identify the status of the project. Presentation minutes must clearly identify any issues raised during the presentation that impacts cost, risk and schedule for the project.
4. make presentations as identified under the RS sections to support the review and approval process;
5. prepare and distribute status reports to the Departmental Representative on a monthly basis. Status reports must clearly identify any issues raised during the project the impacts on cost, risk and schedule for the project.
6. coordinate the scope of work and design with other disciplines.
7. review and coordinate the work of other contracts, if applicable such as furniture, audio-visual, security systems and IT/telecommunications, and inform the Departmental Representative if the work of other contracts will impact the design layouts and other discipline work before proceeding with the implementation of the changes.

2.2.4.3 DELIVERABLES - DETAILS

The purpose of this section is to describe interior design services that may be identified and requested by the Departmental Representative at the time of call-up.

1. MASTER DRAWINGS

1. Verify on-site conditions by preparing or updating master drawings to scale and in an approved AutoCAD format as per 'Doing Business with A&E Ontario Region - Standing Offers' attached at Appendix D and the PWGSC National CADD Standard including but not limited to,

existing architectural/interior design, mechanical, electrical, structural, and communication/data elements on underside of suspended ceilings are correctly indicated.

Submit for review. Revise as required. Resubmit for final approval.

2.

2. BUILDING CAPABILITY RECOMMENDATIONS REPORT

1. The intent of the Building Capability Report is to investigate, assess and analyse how well the building(s) meets Client Department requirements, and make recommendations to suit the Client Department's requirements. This report must not be confused with a Building Condition Report (BCR) which identifies the capital improvement requirements necessary to maintain an asset at a specified level, throughout and at the end of a set planning horizon.

The Consultant must assess the capability of the existing building infrastructure and systems including as a minimum architectural, interior design, mechanical, electrical, structural, conveying system, communication/data, and security, to determine how effectively the building(s) meets Client Department requirements.

- o Prepare the Building Capability Report in reference to the Client Department's functional requirements. The report must include but will not necessarily be limited to:
 - a. Results of site investigations and comprehensive review of the project requirements;
 - b. Location and capability of existing infrastructure and building systems including architectural/interior design, mechanical, electrical, structural, conveying system, communications/data and security systems;
 - c. Deferred maintenance; curable/incurable equipment obsolescence; design problems and deficiencies that are likely to affect the Client Department requirements;
 - d. Identification of all deficiencies, potentials and constraints with the existing building systems to support the Client Department's functional requirements and proposed planning alternatives;
 - e. Areas of concern including an assessment of their impact on space, time and budget; f. Preliminary recommendations and alternative remedial measures for areas of concern;
 - g. Preliminary assessment of the buildings conformance with the PWGSC Sustainable Development Strategy; and
 - h. In buildings or floor spaces where existing construction and or fit up exist and are to be reused , assess building conformance with the Government of Canada Workplace 2.0 Fit-Up Standards.
4. Coordinate work performed by Mechanical and Electrical engineering sub-consultants and incorporate into the Building Capability Recommendations Report. Mechanical and electrical engineering services must be complete in that they identify all issues that will have a significant impact on the project.
5. Submit for review. Revise as required. Resubmit for final approval.

3. SUSTAINABILITY RECOMMENDATIONS REPORT

1. Sustainability Recommendations Report will include but will not necessarily be limited to the following:
 - a. Identification of construction, renovation and demolition waste materials diversion target (minimum is 75% or more);
 - b. Recommendations for sustainable sound construction materials (renewable, recycled content, durable materials);
 - c. Energy and water efficiency in facilities (including heating, ventilation, lighting, low water consumption appliances, etc.); and
 - d. Complete sustainability checklist using either Green Globe Fit up or LEED Commercial Interiors tool. The checklist must include the projected Sustainability Goal intended to be achieved and the rationale for including and excluding specific elements on the checklist.

2. Coordinate work performed by Mechanical and Electrical engineering sub-consultants and incorporate into preliminary report.
3. Submit for review. Revise as required. Resubmit for approval.

4. SCHEMATIC PLANS

1. At the time of Call-up and based on Government of Canada Workplace 2.0 Fit-Up Standards, prepare a maximum of two (2) schematic plans of one floor (or portion, depending on the size of the floor plate).
2. The schematic plans must reflect the approved Client Department's overall functional requirements but not necessarily any particular group, division etc.
3. The schematic plans must contain sufficient detail (including furniture, workstations etc.) to graphically illustrate the Government of Canada Workplace 2.0 Fit-Up Standards, and the functional program requirements established in RS 2.2.2 Functional Programming.
4. The following must be included:
 - a. Identification of all partition including door swings;
 - b. All circulation paths;
 - c. Proposed workstation layouts for both enclosed offices and open areas;
 - d. Support space for both enclosed areas and open areas;
 - e. Special purpose spaces as required to illustrate the overall design strategy; and
 - f. Identification of all areas including name, room numbers and size.
5. Provide a written justification and summary for each option including as a minimum: number of workstations and enclosed offices according to size and level, total number of end users, types and number of support spaces, types of special purpose spaces, percentage of circulation, percentage of building loss factor and percentage of open offices versus closed offices.
6. The schematic plans must reflect the space allocation, approved functional program and project budget (refer to fit-up costs (m²/\$) outlined in the Government of Canada Workplace 2.0 Fit-Up Standards.
7. The plans must be consistent with the building's configuration and systems including as a minimum: mechanical, electrical, structural, communications/data, security.
8. Submit schematic plans for review. Revise as required. Resubmit for final approval pending review and approval by authorities having jurisdiction.

5. MECHANICAL AND ELECTRICAL ENGINEERING DESIGN CONCEPT

1. Prepare mechanical and electrical engineering design concept documents in sufficient detail to illustrate the mechanical and electrical engineering design concept and to demonstrate compliance with the project requirements. Develop design concept solutions that accommodate the Client Department's requirements; respond to the existing building, its surrounding context and the project budget. Provide option analysis complete with life cycle cost analysis.
2. Number of options to be identified at time of Call-up.
3. Design Concept and alternative solutions must adhere to the Government of Canada Workplace 2.0 Fit-Up Standards.
4. Prepare mechanical and electrical engineering drawings to include analytical diagrams, schematic bubble diagrams, plans, elevations and sections. Perspective sketches may be requested.
5. Submit for review. Revise as required. Resubmit for final approval.

6. REVIEW AND APPROVAL BY AUTHORITIES HAVING JURISDICTION

1. Submit client approved schematic plans to the authorities having jurisdiction.
2. Submit client approved schematic plans to Federal Heritage Building Review Office (FHBRO) as required by the project.
3. Revise plans as required and provide written response to comments received from authorities having jurisdiction.

-
4. Coordinate review and approval process by Authorities having Jurisdiction with Mechanical and Electrical engineering sub-consultants and ensure written responses to comments are provided.
 5. Submit for review. Revise as required. Resubmit for final approval.
7. FEASIBILITY STUDY
1. Prepare a report that examines the viability and practicality of a project, where feasibility study services or deliverables are required above and beyond those described in RS 2.2.3 Feasibility Study.
 2. Make detailed and specific recommendations. Provide analysis and justification as required.
 3. Submit for review. Revise as required. Resubmit for approval.
8. VERIFICATION OF FUNCTIONAL PROGRAM
1. Review, update and/or complete Functional Program Document prepared by others. Refer to RS 2.2.2 Functional Programming and coordinate with Departmental Representative to determine list of services and deliverables required for Functional Program Document.
 2. Ensure content of Functional Program Document prepared by others includes required deliverables described in RS 2.2.2 of this Standing Offer and that the deliverables are complete and still current, i.e. up-to-date and approved by the Departmental Representative.
 3. Update the functional program deliverables as required.
 4. Submit for review. Revise as required. Resubmit for final approval.
9. VERIFICATION OF SCHEMATIC PLANS
1. Review, update and/or complete the Schematic Design deliverables prepared by others. Refer to RS 2.1.2 Design Concept (Schematic Design) of Basic Services for list of services and deliverables.
 2. Ensure Schematic plans prepared by others includes the deliverables described in RS 2.1.2 Design Concept (Schematic Design) of Basic Services, and that the deliverables are still current, i.e. up-to-date and are approved by the Client Department.
 3. Provide a detailed list of all requirements that exceed the Government of Canada Workplace 2.0 Fit-Up Standards. Assist PWGSC in the reconciliation and approval process for any and all non-compliant components.
 4. Update the schematic plans as required.
 5. Submit for review. Revise as required. Resubmit for final approval.
10. TEST PLANS
1. Develop test plans of one (1) floor plate (or portion, depending on the size of the floor plate) in sufficient detail to test the viability of the workstations/work settings layouts and support space options being considered. Include special purpose space options as required.
 2. Number of plans to be identified at time of Call-up.
 3. Test plans must reflect Client's Department overall functional requirements but not necessarily any particular group, division etc.
 4. Test plans must include circulation paths, building loss factor.
 5. Submit for review. Revise as required. Resubmit for final approval.

11. INVENTORY AND ASSESSMENT OF EXISTING FURNITURE AND EQUIPMENT

1. Prepare a detailed furniture and equipment inventory report including drawings of existing furniture and equipment layouts and a chart indicating counts, sizes of furniture and equipment, list of furniture components and equipment, a description of existing finishes and colours, photographs of each typical furniture component and equipment, and an assessment of the condition of existing furniture for the following areas:
 - a. Workstations/work settings;
 - b. Enclosed offices;
 - c. Support space; and,
 - d. Special purpose space.
2. Furniture and equipment layouts described above must include identification of existing location, and user's name or workstation number, if applicable.
3. All information gathered under items 1 and 2 above must be assembled into a report format.
4. Submit for review. Revise as required. Resubmit for final approval.

12. FREE-STANDING FURNITURE

1. Provide generic requirements for new free-standing furniture required for the project. Including but not limited to the following:
 - a. Identification of furniture by type (i.e. single pedestal desk credenzas, files, chairs, etc.);
 - b. Dimensions;
 - c. Total number of units;
 - d. Typical layouts if applicable;
 - e. Technical requirements if applicable;
 - f. Finishes; and
 - g. Associated unit price ranges and budget information.
2. Submit for review. Revise as required. Resubmit for final approval.

13. SYSTEMS FURNITURE

1. Provide generic requirements for new systems furniture to be procured through Standing Offer or other government internal procurement methods including as a minimum the following:
 - a. Identification of furniture type (e.g. desking or panel hung systems etc.);
 - b. Description of components (e.g. overhead bins, file pedestal etc.);
 - c. Dimensions;
 - d. Typical layouts;
 - e. Total number of each layout type and/or total component count;
 - f. Technical requirements (e.g. panel height(s), mobility, height adjustability, electrical requirements etc.);
 - g. Finishes; and
 - h. Associated unit price ranges and budget information.
2. Submit for review. Revise as required. Resubmit for final approval.

14. REFURBISHMENT OF EXISTING FURNITURE

1. Provide a detailed inventory of existing furniture to be refurbished through the Standing Offer process including as a minimum the following:
 - a. Identification of furniture by manufacturer and type (e.g. work surfaces, desks, chairs, file cabinets etc.);

- b. Total number of units;
 - c. Existing/new finishes; existing/new location; and
 - d. Associated budget information.
2. Submit for review. Revise as required. Resubmit for final approval

15. COLOUR BOARDS

1. Develop colour schemes boards that clearly demonstrates the intended use of materials including as a minimum architectural finishes, interior design finishes, paint colours, and finishes for furniture and furnishings.
2. In a written format, identify the colour, pattern, texture, name, manufacturer and reference number for each finish and colour identified.
3. Submit colour schemes and material samples for review. Revise as required. Resubmit for final approval.

16. PRESENTATION BOARDS

1. Prepare the approved schematic plans, vertical stacking diagrams, horizontal zoning plans, and/or final furniture plans for presentation purposes.
2. The presentation technique selected by the Consultant must clearly communicate both the functional and aesthetic aspects of the proposed fit-up developed for the Client Department. All presentation boards must be completed at an appropriate scale, mounted on boards, and colour rendered. Elevation and perspective views, as required, must include human figures for scale.
3. Present the material to the Departmental Representative (if applicable) and the Client Department.
4. Submit comments from presentation(s), if any, in the form of meeting minutes.
5. Revise the presentation material as required. Resubmit for final approval.

17. PRESENTATION TO UPPER MANAGEMENT

1. Assist the Departmental Representative or appropriate representative from the Client Department in preparing a presentation to upper management of the Client Department, to achieve an executive level understanding of the project, to present progress status reports, obtain feedback, and/or seek approval.
2. Attend the presentation and provide all required assistance.
3. Submit the findings from the presentation in the form of meeting minutes. Revise as required. Resubmit.

18. EMPLOYEE INFORMATION SESSION

1. Assist the Departmental Representative or appropriate representative from the Client Department in the preparation of an information session for employees of the Client Department to explain the following:
 - a. Goals and objectives of the project;
 - b. Employee involvement;
 - c. Communication strategy for disseminating project information; and/or
 - d. Project schedule.
2. Attend the presentation and provide all required assistance.
3. Submit findings from the employee information session in the form of meeting minutes. Revise as required. Resubmit.

19. FOCUS GROUP SESSIONS

1. Prepare, coordinate and conduct focus group sessions with participants chosen by the Client Department, to assist in the information gathering process, and/or to assess the viability of proposed planning alternatives. Participants may include representatives from property management, human resources, labour relations, information technology, corporate communications, security and representatives from various divisions (i.e. directorates, branches, sectors, units etc.).
2. Submit findings from the focus group sessions in the form of meeting minutes. Revise as required. Resubmit.

20. RELATED PUBLIC SPACES

1. Provide Functional Program services described in the Required Services (RS) section of this document that are applicable to upgrading the base building outside the office space described in the Call-Up. These related public spaces might include, as a minimum, lobbies, washrooms, and/or elevator cabs. This does not include areas within the office fit-up space where higher interaction with the general public might occur (i.e. reception area, service counter).
2. Confirm project budget related to the fit-up of related public spaces and provide justification regarding functional and technical requirements along with Class 'D' estimates.
3. Submit for review. Revise as required. Resubmit for final approval.

21. DETAILED COMMUNICATION STRATEGY

1. Prepare a detailed communications strategy in relation to the functional program. Report to include as a minimum:
 - a. Written and verbal communication strategy within project team
 - b. Written and verbal communication strategy outside the project team; and
 - c. Other communication strategies, as required.
2. Submit for review. Revise as required. Resubmit for final approval.

22. TRANSFER OF INFORMATION

1. The Consultant is required to present a formalized presentation/summary of their required services and deliverables in order to provide a historical context and a complete overview of the project parameters to the project team.
2. The Consultant must provide the following deliverables, which will include as a minimum:
 - a. Proposed agenda for formal approval by the Departmental Representative;
 - b. A written narrative/overview to identify and describe all significant factors which have influenced the decision-making process during the project; and a briefing on the last document submission;
 - c. After completion of the presentation, the written narrative/overview must be submitted to the following:
 - i) one (1) hard copy to the Departmental Representative;
 - ii) one (1) hard copy to the Client Department; and
 - iii) one (1) hard copy and one (1) electronic non-PDF copy to the Architecture and Engineering Resources (where applicable).

23. CLASS 'D' COST ESTIMATE

1. Prepare a Class 'D' cost estimate (Elemental Cost Analysis). Estimate must be summarized in an agreed and consistent elemental format, by discussion with the Departmental Representative.

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2. Cost estimate is to include as a minimum architectural, interior design, mechanical and electrical. Class 'D' estimate is to isolate and show separately the cost of base building costs, fit-up costs and Client Department costs (refer to the funding accountabilities identified in the Government of Canada Workplace 2.0 Fit-Up Standards).
3. Submit for review. Revise as required. Resubmit for final approval.

24. COORDINATION OF OTHER CONTRACTS BY OTHERS

1. The Consultant is to review and coordinate with the sub-consultants and specialists the scope of work of other contracts (scope of work procured by PWGSC or another Department for security systems, audio-visual equipment, telecommunication cabling, system furniture, high density mobile storage, etc.) with the scope of work within the project of the specific call-up.
2. The Consultant shall inform the Departmental Representative of any discrepancies or conflicts that would impact the project and recommend options to the Departmental Representative how to resolve the conflicts.

RS 2.2.5 ACCESSIBILITY AUDITS

2.2.5.1 INTENT:

The Consultant shall conduct an accessibility audit of both exterior and interior spaces using the audit templates provided by the Departmental Representative to indicate basic or enhanced accessibility requirements, associated costs, and corrective action. Photographs and diagrams are to be included to identify scope areas.

2.2.5.2 SCOPE AND ACTIVITIES:

The Consultant shall:

1. attend all meetings and presentations required for the project. Additional Consultant team members' shall be required to attend project team meetings to address their particular areas of expertise during the different delivery stages for each call-up. The number and frequency of project team meetings will be determined at the time of Call-Up;
2. ensure all sub-consultants attend as required throughout the various phases of the project;
3. record the issues, decisions and action items (with responsibility) at each meeting and prepare and distribute meeting minutes within 72 hours. Meeting minutes must clearly identify the status of the project.

2.2.5.3 DELIVERABLES:

The Consultant shall provide the following:

1. Written reports including the audit templates, photographs of existing conditions, drawings and recommendations for rectification.

RS 2.2.6 SUSTAINABILITY STRATEGIES AND REPORTS

2.2.6.1 INTENT:

The Consultant, as strategic advisor for the project, is to research and investigate a wide range of sustainability strategies for the specific project with the objective to achieve the assessment tool targets that conform to PWGSC's diverse green building commitments as described in the Federal Sustainable Development Strategy (FSDS) including; but, not limited to:

1. Recycling and reuse of materials, systems, equipment;
2. Procurement of "green" materials;
3. Energy reduction and management;
4. Water management
5. Waste reduction and management;
6. Life-cycle costing, cost benefit analysis;
7. Integrated Design process.

2.2.6.2 SCOPE AND ACTIVITIES:

The Consultant shall:

1. Research and investigate sustainable development strategies in the context of the project and make recommendations.
2. Prepare a detailed inventory of existing non-contaminated materials, systems, equipment identified for reuse or recycling. Include target markets for recycled material and make recommendations. Verify with Client Department. Revise as required. Obtain approval.
3. Investigate and identify potential "green" building materials and products for the project including sourcing (i.e. In order to meet government objectives, sole source may be necessary). Verify with Client Department. Revise as required. Obtain approval.
4. Investigate and analyze potential to exceeding the Model National Energy Code by 30% to 50%. Make recommendations for an Energy Reduction and Management plan.
5. Investigate and analyze potential to increasing energy efficiency, and strategies to decrease water run-offs.
6. Develop a non-hazardous and hazardous waste reduction and management plan. Make recommendations, verify with Client Department. Revise as required. Obtain approval.
7. Based on the recommendations included in 1 to 4, perform a cost / benefit and life-cycle costing analysis for the Sustainability Strategy for the project.

2.2.6.3 SCOPE AND ACTIVITIES - DETAILS:

1. At the Analysis Stage:

The Consultant shall prepare a sustainability development strategies and report that includes the following aspects as a minimum:

1. Review potential for environmental impacts and application of the Canadian Environmental Assessment Act (CEAA).
2. Review and confirm the proposed assessment of Sustainable Development Design standards to be applied to the project, such as to achieve LEED certification.
3. Establish a policy for the project to minimize environmental impacts consistent with the project objectives and economic constraints.
4. Identify sustainable design opportunities, strategies, targets, preliminary budgets (i.e. energy, water, waste, etc.).

2. At the Design Concept Stage:

The Consultant shall provide a Sustainable Design Strategy that includes the following as a minimum:

1. Provide sustainable design opportunities, strategies, preliminary budgets (i.e. energy, water, waste, etc.). Demonstrate life cycle costing for a sustainable design allowance to demonstrate that investment in sustainable technologies and processes return a value to PWGSC.
2. Identify which LEED water efficiency credits, energy credits, material credits, indoor environmental quality credits will be pursued. For those credits identified, provide a short description on how they will be achieved.

3. At the **Design Development Stage**:

The Consultant shall provide, as a minimum:

Updated sustainable design opportunities, strategies, updated budgets (i.e. Energy, water, waste, sustainable procurement strategies, etc.).

1. Updated energy analysis and energy budget established for all disciplines at the Design concept stage.
2. 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.
3. LEED target (as per the Federal Sustainable Development Strategy (FSDS) at <http://www.ec.gc.ca/dd-sd/default.asp?lang=En&n=CD30F295-1>) for the determined system scorecard indicating which credits the design does or will meet.

2.2.6.4 DELIVERABLES:

The Consultant shall:

1. Submit the Sustainability Strategy for review, in a report.
2. Revise as required.
3. Resubmit for final approval.

RS 2.2.7 RESIDENT SERVICES DURING CONSTRUCTION:

2.2.7.1 INTENT

The purpose of the Resident Site services is to ensure the presence of the Consultant's full-time representative on site to inspect, to co-ordinate, and to monitor all aspects of the work during the construction of the facility, as well as to liaise with the Contractor, with Public Works And Government Services Canada, and with other stakeholder as appropriate to the work.

More than one person may be required to suit the hours of construction, the skills required depending on the nature of the work being executed, and on the advancement phase of construction work on site.

The Consultant Resident Site Representative is responsible for providing continuous (including overtime when construction operations perform multiple shifts per day) site review for all aspects of the project, maintaining daily records of all construction work placed. He is to ensure constant communication amongst the Departmental Representative, Consultant Team, Contractor, and the Provincial Department of Labour.

The Consultant Resident Site Representative shall:

1. be directly responsible to the Consultant and to all members of the Consultant's team of specialist sub-consultant disciplines.
2. liaise with the Departmental Representative, the Contractor, and with other project team members and stakeholders.
3. become thoroughly familiar with the Contract documents, the National Building code and all Fire Commissioner of Canada Standards for Construction operations. The Consultant Resident Site Representative shall also be aware of all Federal, Provincial and Municipal standards for the health and safety of construction workers.
4. become thoroughly familiar with the requirements of the Consultant Project Brief and project responsibilities of others which relate to his services.

2.2.7.2 SCOPE, ACTIVITIES AND DELIVERABLES:

1. General:

The Consultant Resident Site Representative(s) shall:

1. Provide full time resident inspection, clarification, co-ordination and monitoring during the construction work and be responsible to the Consultant. In addition, the Departmental Representative may delegate additional responsibilities subject to the Consultant's agreement.
2. Maintain daily records of all construction work placed and ensure constant communication amongst the Departmental Representative, Consultant Team, , and the Contractor.
3. Co-ordinate and direct an assistant as approved by PWGSC.
4. In case of emergencies, the Consultant Resident Site representative is empowered to stop the work, or give orders to protect the safety of the workers or Crown property.

2. Inspection and Reporting

The Consultant Resident Site Representative shall inspect all phases of the work in progress, for the purpose of bringing to the attention of the Contractor, after checking with the Consultant, and Departmental Representative any discrepancies between the work, the contract documents and accepted construction procedures. He shall keep a daily log of such inspections and shall issue a weekly written report to the Consultant, both for distribution, in the form directed. The Resident Site Representative shall make any other reports or surveys as may be requested by the Departmental Representative through the Consultant.

3. Interpretation of the Contract Documents

Interpretation of the contract documents shall be the responsibility of the Consultant. The Consultant may, however, delegate specific duties while maintaining responsibility.

It shall be the duty of the Resident Site Representative to assist the Consultant and to further inform the Consultant of any anticipated problems which may delay the progress of the work. The method for relaying such information shall be determined by the Consultant.

4. Changes in the Work

The Resident Site representative 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 Departmental Representative.

The Consultant may call upon the Resident Site Representative to assist in the evaluation of changes in the work, where a knowledge of job conditions is required.

5. Communication & Liaison

The Resident Site Representative shall:

1. convey the Consultant's instructions regarding the required standards of workmanship to the Contractor(s).
2. Verify that the work on site is in accordance with the Construction Documents, confer and obtain guidance on these findings with the Consultant. The matter is then to be brought to the attention of the Contractor's Superintendent. Although informal discussions with Sub-trade Superintendents are usually permissible, (but only with the agreement of the Contractor), the Resident Site Representative should not deal directly with foreman or tradesmen, or interfere with the progress of the work.
3. Communicate formally with the Contractor in writing, and immediately the Departmental Representative and the Consultant.
4. 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.)
5. Accompany PWGSC representatives on inspections and report as required on the Consultant responses to the project requirements, comments or instructions of the PWGSC's forces. Note that the Resident Site Representative should encourage such requirements, comments or instructions to be provided to him in writing.
6. Consider and evaluate any suggestions or modifications to the documents advanced by the Contractor and immediately report these to the Consultant with comments.
7. Ensure that PWGSC 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.

The Resident Site Representative will investigate, schedule and approve in writing, all temporary or permanent connections into any of the buildings' systems prior to the work being done. He shall provide advanced forecasts and advise the PWGSC Property Manager of any interruption of normal building services with a minimum 24 hours notice prior to the work being undertaken, where this work cannot be done during the silent hours.

6. Daily Log

The Resident Site Representative shall:

1. Keep a daily log recording:

- a. weather conditions, particularly unusual weather relative to construction activities in progress;
- b. Workforce on site: construction firms on site, work being done by each firm, number of workers per firm, equipment on site (used and unused);
- c. Any instructions given to the Contractor;
- d. major material and equipment deliveries and removals;
- e. daily activities and major work done;
- f. start, stop or completion of activities; quantities of each type of work done and in progress, shutdowns (time start and end/firms/workers affected);
- g. presence of inspection and testing firms, tests taken, results, etc;
- h. Explicit confirmation of expected site conditions encountered, or a full description of unusual site conditions experienced;
- i. significant developments, remarks, etc;
- j. special visitors or events on site;
- k. authorities given to the Contractor to undertake certain or hazardous works;
- l. environmental incident/accidents;
- m. Safety incidents/accidents;
- n. Record significant inspections of work performed;
- o. reports, instructions from Appropriate Authorities Response Actions.

Note: The log is the personal property of the Resident Site Representative. Copies of the log book, certified as copies, are to be provided to PWGSC and the Consultant at the end of the project.

2. Provide copies of the daily log to the Departmental Representative on a daily basis.

3. Maintain a collection of electronic photographs, taken on a daily basis, that illustrate daily activities on site, including deficiencies, progress, special conditions, etc.

4. Incorporate date taken onto the photographs and into file names.

5. At the end of construction, submit a report to the Departmental Representative containing all daily logs and photographs compiled in a sequential manner.

7. Weekly Records

The Resident Site Representative shall prepare weekly reports for the Consultant in the form directed, including:

1. progress relative to schedule;
2. major activities started or completed during the week; main activities in progress;
3. major deliveries of materials and/or equipment;
4. Difficulties encountered which may cause delays in completion;
5. materials and labour needed immediately;

6. cost estimates of work completed and materials delivered (for cost plus contracts) as may be requested by PWGSC;
7. Any outstanding information or action required by Consultant or PWGSC;
8. work force;
9. Weather;
10. Other remarks;
11. accidents on site;
12. life safety or building hazards caused by the work, the Contractor or his agents.

8. Site Records

The Resident Site Representative shall maintain orderly and updated files at the site for the use of the PWGSC, Consultant and himself as follows:

1. Contract and Tender Documents.
2. Approved Shop Drawings.
3. Approved Samples.
4. Samples.
5. Site Instructions.
6. Contemplated Change Orders.
7. Change Orders.
8. Memoranda.
9. Test and Deficiency Reports.
10. Site photographs
11. Correspondence and Minutes of Meeting.
12. Names, addresses, telephone numbers of Client representatives, Consultant and all Contractors, sub-trades key personnel associated with the contract; including home telephone numbers in case of emergencies.

In addition, the Resident Site Representative shall maintain an updated progress schedule. A reproduction of the original contract drawings shall be carefully preserved and shall be kept marked up to date with all addenda, change orders, site instructions, details, as-built conditions, etc., issued subsequent to the award of the contract.

9. Inspection of the Work

The Resident Site Representative shall make on site observations and spot checks of the work to determine whether the work, materials and equipment conform with the contract documents and supplementary conditions. The Site consultant's representative shall advise the Contractor of any deficiencies or unapproved deviations via memorandum and report immediately to the Consultant and Departmental Representative any of these on which the Contractor is tardy or refuses to correct.

The Resident Site Representative shall arrange for the Consultant's architectural, structural, mechanical, electrical and other consultants to make the periodic inspections required by the Consultant's contract, and for these inspections to be made timely with respect to the progress of the work.

The Resident Site Representative shall also report if materials and equipment are being incorporated into the project prior to approval of relative shop drawings or samples.

The Resident Site Representative shall assist in the preparation of all deficiency reports, interim, preliminary, and final, in collaboration with the PWGSC and Consultant's representatives.

The Resident Site Representative shall be responsible for the measurement of all work to be done on a unit-cost basis.

10. Site Meetings

The Resident Site Representative shall attend all job-site meetings.

11. Inspection and Testing

The Resident Site Representative must see that the tests and inspections required by the contract documents are conducted, and should observe these tests and report the results in the daily log. The Consultant should be notified if the test results do not meet the specified requirements, or if the Contractor does not have tests undertaken as required.

12. Emergencies

In the case of emergency where safety of persons or property is concerned, or work is endangered by the actions of the Contractor or the elements, to safeguard the interests of PWGSC, the Resident Site Representative shall give immediate written notice to the Contractor of the possible hazard. He shall further, if necessary, stop the work or give orders for remedial work, and contact the Consultant immediately for further instruction.

13. Limitations

The Resident Site representative shall not:

1. Authorize deviations from the contract documents.
2. Conduct tests.
3. Approve shop drawings or samples.
4. Advise the user-client in any matter without obtaining guidance from the Consultant.
5. Accept any work or portions of the building.
6. Enter into the area of responsibility of the Contractor's Field Superintendent.
7. Stop the work unless convinced that an emergency exists as noted above.

14. Hazardous Construction Operations

It is the duty of the Resident Site Representative to examine all site conditions and methods to be used by the Contractor undertaking hazardous operations.

Give written authority to undertake hazardous operations to the Contractor, when fully satisfied that all necessary precautions and acts have been taken by the Contractor to safeguard the life safety of the workers and building occupants and Crown property. Written authority shall be countersigned by the Contractor to acknowledge that the latter is aware of the Resident Site representative's instructions and requirements and both parties will retain copies of the authority document signed mutually by them.

The Resident Site representative shall inspect the areas where hazardous work is under way to ensure that the Contractor is maintaining the agreed safety standards. Any infractions may result in the Resident Site representative stopping the work. All infractions, or work stoppages ordered shall be reported in writing and verbally to the Consultant and the Departmental Representative.

15. Building Security

Special precautions must be taken at all times to prevent unauthorized entry of the building. The Resident Site Representative is to ensure that all contractor-made openings and means of access, are firmly secured when the Contractor leaves the site. The Resident Site Representative will liaise closely with the Consultant and PWGSC Departmental Representative on all security and/or safety problems that may arise due to the Contractor's operations.

RS 2.2.8 ESTIMATING AND COST PLANNING

2.2.8.1 INTENT:

Cost Specialist

Delivering the project on time and within budget is a high priority. 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 is required. This Cost Specialist will 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 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.

2.2.8.2 SCOPE OF SERVICES:

The Cost Specialist shall provide an interactive and continuous cost consulting service from the commencement of project design through to construction completion, including the preparation of complete estimates for all construction trades, escalation, inflation and contingency costs.

The Cost Specialist shall provide to PWGSC and the Consultant, a cost advising, and cost monitoring/reporting service.

The Cost Specialist shall attend all project meetings throughout the design phases and be prepared to present and defend the estimates directly to the Departmental Representative.

2.2.8.3 SERVICES - BASIC ACTIVITIES

The Cost Specialist shall work with and advise the Consultant team and PWGSC of the costs of individual building components and costs of various design systems. Estimates should be prepared in detail and summarized using an Elemental Analysis format. Acceptable formats are noted under the Submission Standards section following.

1. REPORTING

(a) Milestone Reporting:

At each of the Milestones specified in this document, provide a complete submission including the required Elemental Summaries, supported by all backup work sheets clearly detailing the process used in preparing the estimate. The detailed work sheets will be the prime basis on which estimates will 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.

A typical Milestone Report will contain:

1. Project Estimate Summary;
2. Elemental Estimate Summary;
3. Estimate Back-Up Detail:
 - Basis for escalation, inflation and contingency calculations;
 - Detailed measurement and pricing;
4. 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;
 - Notes on past and forecast Cost Specialist activity;
5. Estimate Reconciliation:
- With last submission;
 - With Construction Cost Plan;
 - Any other relevant information.

(b) Monthly Report

In addition to the Milestone Reports, submit a Monthly Report outlining activities during the previous month, identifying areas of concern and new information received etc., along with forecast and proposed revisions to the current estimate. This report shall also contain a full up-to-date Elemental Cost Summary:

1. Project Estimate Summary;
2. Elemental Cost Summary;
3. Narrative:
 - Description of the basis for estimate revision;
 - Description of new information used in the estimate including the date received
 - Listing of notable inclusions;
 - Listing of notable exclusions;
 - Listing of items/issues carrying significant risk;
 - Notes on past and forecast Cost Specialist activity.

(c) Exception Report

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.

If the estimate falls short of or exceeds the Construction Cost Plan due to such changes, the Cost Specialist with the Consultant team shall fully advise the Departmental Representative.

The Cost Specialist with the Consultant team shall submit to PWGSC proposed alternative design solutions and revise the most recent monthly estimate.

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

1. Scope Change: Identifying the nature, reason and total cost impact of all identified and potential project scope changes affecting Construction Cost Estimate.
2. Cost Overruns and Underruns: Identifying the nature, the reason and the total cost impact of all identified and potential cost variations.
3. Options Enabling a Return to Construction Cost Estimate: Identifying the nature and potential cost effects of all identified options proposed to return the project within Construction Cost Estimate.

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2. SUBMISSION STANDARDS

(a) Summary Format

1. Elemental Analysis: All estimates shall be summarized in an agreed and consistent Elemental format. Several variations in format may be acceptable to PWGSC (by discussion) but those following the ASTM (USA), CIQS (CDN), CSI Uniformat II (USA) or BCIS (UK) formats are preferred.
2. Trade Summary: Where a trade summary is required, those following the Masterformat are preferred, except where local practice provides a more suitable alternative.
3. Project Cost Subdivision: The estimate shall isolate the costs of each phase of construction. All estimates within these phases shall further isolate and show separately the cost of individual building blocks and/or the accommodation sections listed here: - New Construction;
 - : Renovation;
 - : Sitework.

(b) Media

1. Provide three (3) hard copies of all reports including estimate summaries only and one (1) additional hard copy of the full report including the additional estimate support information to PWGSC.
2. One soft copy of the total estimate, summary and support detail, shall be provided on a CD or USB stick in an agreed format.

(c) Timelag

Recognizing that estimates must follow the design decisions they represent, such estimates may lag. The cost portion of the Milestone Reports may follow, but by no more than two weeks unless otherwise determined by the Departmental Representative.

(d) 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 either list them as assumptions, or have them incorporated in an outline specification modified by the Consultant.

3. TECHNIQUES:

The Cost Specialist is required to be familiar with and make use of a broad range of cost techniques, especially the following:

1. 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.

2. 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.

- 3. 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.

4. Continuing Estimate Process

A process of continual adjustment of previous estimates may be used in place of total remeasurement 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.

5. Project Research

The Cost Specialist shall visit the proposed or alternative construction sites 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 this reconnaissance activity is expected.

6. Value Engineering/Management

PWGSC may request a Value Engineering/Management Study to be undertaken. The Consultant Team will not be major players in this process, but shall answer questions and/or provide additional information called for by the Value Management team if requested to do so. 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.

2.2.8.4 SERVICES - SPECIFIC ACTIVITIES (a) Project Analysis Stage

Review, report on, and propose revisions to the existing class "D" estimate. Do not proceed until the Cost Specialist, the Consultant and PWGSC have accepted the revised class "D" estimate.

The revised Class "D" cost estimate shall become the Construction Cost Plan.

Concept Design

A Class "C" estimate will be prepared at the highest level of detail commensurate with the available information using elemental and additional detailed costs.

Design Development

Upon completion of design development prepare a Class "B" cost estimate representing the increased level of design detail available. The report shall be prepared using detailed (elemental) costs i.e. measured quantities with minimal allowances or lump sums.

Upon final acceptance, the Class "B" cost estimate shall become the Construction Cost Plan.

Contract Documents

During the production of the contract documents a process of continuing cost control progressively more detailed is required. At each review of contract documents, 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 contract documents.

Pre-Tender

Upon completion of the contract documents a pre-tender Class "A" cost estimate will be prepared using 100% measured quantities.

Provide a trade breakdown of the pre-tender estimate for use in reviewing the submitted bids and the successful Contractor's estimate breakdown.

Tender Stage

- 1. Tender Award** During the tender period, examine and report on any cost impact created by the issue of tender/contract addenda. Incorporate the results of such addenda review into the final pre-tender estimate (both elemental and trade versions) prior to receipt of bids.
- 2. Bid Review and Analysis** Assist the Departmental Representative, as required, by analyzing and reconciling any differences between the pre-tender estimate and the submitted bids.
- 3. Negotiation** Should it be necessary to negotiate with any bidder prior to awarding the Contract, the Cost Specialist shall provide cost information as needed and enter into the negotiations if requested.
- 4. Reconciliation** Upon the signing of a contract with the successful Contractor, the Cost Specialist if necessary, will reconcile both the elemental and trade estimates, in detail, with the agreed contract sum. These reconciled estimates will be used by the Construction Team during the construction phase of the project.

Cost Specialist Services through Construction

During construction, the Cost Specialist shall assist the Construction Team with cost advice if requested.

Such activity may well encompass the following activities:

- Evaluation of change orders;
- Evaluation of claims;
- Evaluation of work completed;
- Evaluation of cash flow.

Post Contract

The Cost Specialist may be required to assist with the provision of details needed for an evaluation of the project, regarding the Project's cost performance.

2.2.8.5 RESPONSIBILITIES TO PWGSC

PWGSC 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 PWGSC identifies 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.

- No Action Abrogates Consultant's Responsibilities.
- No acceptance or approval by PWGSC, 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 PWGSC 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 2.2.9 RISK MANAGEMENT

2.2.9.1. INTENT:

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

2.2.9.2. SCOPE AND ACTIVITIES:

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

2.2.9.3. DELIVERABLES:

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

RS 2.2.10 CLOSURE REPORT

If requested, the Consultant shall submit closure reports generally comprising of the following :

1. Introduction:

- a. Project history.
- b. Scope of work.
- c. Description of design intent.
- d. Design development.
- e. Tendering process and award of contract.

2. Project implementation:

- a. Start - up meeting.
- b. Work plan and schedule of work.
- c. Field testing and quality control.
- d. Progress meetings and minutes.
- e. Site Instructions.
- f. Change orders.

3. Issues and difficulties encountered during implementation:

- a. Delays in the work.
- b. Lessons Learned.

4. Conclusion and Summary.

5. List of Appendices :

- a. Copy of specifications.
- b. Contract drawings.
- c. List of subcontractors and suppliers.
- d. Digital photographs.
- e. As-built drawings (digital version).
- f. Record drawings and specifications.
- g. Post contract drawings.
- h. Any other drawings related to the project.
- i. Geotechnical report if applicable.
- j. Any environmental report.
- k. Any other report related to the project.

RS 2.2.11 AS BUILT DOCUMENTATION (DRAWINGS AND PHOTOGRAPHS) AND MEASURED DRAWINGS

2.2.11.1 INTENT:

1. The Consultant may be requested to review the field on a more frequent basis to record the as-built conditions during the construction, beyond what the Contractor will be submitting in the basic services. The specific scope is to be determined at time of call-up.
2. The Consultant may be also requested to prepare measured drawings based from on-site measurements of an existing building or space. The purpose of these measured drawings "can be for a building to which additions or alterations will be made; or for spaces which are intended for lease and from which drawings, the areas for lease purposes will be calculated."
3. **The request for this service may be part of the integrated design service or a stand alone service.**

2.2.11.2 SCOPE AND ACTIVITIES:

The Consultant shall:

1. Review the field, take photographs and measurements, as required, record the measurements and details.
2. For as-built conditions, confirm with the Contractor for the accuracy of the "as built" conditions during the construction.
3. Check and verify that all as-built conditions, to the best of his/her knowledge, are recorded accurately and completely. Request for photographs of the areas from the Contractor, prior to enclosing the areas.
4. Prepare as built drawings and measured drawings in autocad format as per Doing Business with A&E Ontario Region - Standing Offers".

2.2.11.3 DELIVERABLES:

The Consultant shall provide:

1. As built drawings
2. Photographs

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RS 2.2.12 MATERIALS AND SYSTEMS TESTING

The Consultant shall:

1. Prepare scope of work for procurement of testing services.
2. Procurement of Testing Services (i.e. concrete testing, review rebar installation, compaction testing, soil testing, domestic water line testing, sprinkler water line testing during construction).
3. Review Analysis of Testing:
 - a. Review results of testing and inform Departmental Representative of any impacts to the project.

RS 2.2.13 COORDINATION OF OTHER SUB-CONSULTANTS AND SPECIALISTS

2.2.13.1 INTENT:

The Consultant shall coordinate and manage the services of additional sub-Consultants/Specialists* required to complete project requirements in support of the requested services under a Call-Up.

* Sub-Consultants and Specialists refers to consultants outside of those included in the Consultant's Team Identification, attached at Appendix C, and as identified under TP 10.2.(d) Disbursements.

2.2.13.2 SCOPE AND ACTIVITIES:

The Consultant shall prepare a documentation and reporting structure for the coordination of the other sub-consultants and/or specialists to include minutes, change orders, site instructions, shop drawing log and other items of the design process to facilitate project completion, commissioning and close-out. The Consultant shall:

1. represent the client during the design and construction phase, leading up to the close-out of the project, including the completion and submission of the necessary warranty reviews. The Consultant shall also be involved in advising the client on dispute resolution with respect to construction quality, scheduling, progress payments and the submission of claims documents.

2.2.13.3 DELIVERABLES:

The Consultant shall provide:

1. a written verification of project requirements that includes objectives, parameters, timelines and budget, with reference to roles and responsibilities, lines of communications, and submission requirements for approvals, presentations, reviews.
2. a project schedule with periodic updating as determined with the Departmental Representative;
3. assistance in preparing a risk management report for the Departmental Representative.
4. implementation strategies that documents task/activities, milestones, process for information gathering, project goals and deliverables;
5. inspection and field reports to the authorities having jurisdiction.
6. minutes that record the issues, decisions and actions items (with responsibility) as discussed at each presentation and prepare and distribute minutes of the presentation within 72 hours;
7. status reports and distribute to the Departmental Representative on a monthly basis. Status reports must clearly identify any issues raised during the project, detailing the impacts on cost, risk and schedule for the project.

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RS 2.2.14 ADMINISTRATION OF MULTIPLE CONTRACTS

The Consultant may be asked to coordinate the requirements of a project with the scope of multiple contracts managed by the Departmental Representative and/or the Client. The Consultant shall inform Departmental Representative and/or the Client of the discrepancies between the multiple contracts and the specific project. The Departmental Representative and/or the Client will determine which scope of work will be changed to rectify the conflict.

Details of required services to be determined at the time of each individual Call-up.

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RS 2.2.15 COMPLIANCE / TECHNICAL / PEER REVIEWS

The Consultant may be asked to review the design of a project prepared by another consultant or to review a project built by a Contractor for compliance to specific standards. The Consultant and his sub-consultants / specialists will be advised of the applicable standards, building codes and regulations at the time of the Call-up. The Consultant and his sub-consultants / specialists familiarity with the specific standards, building codes and regulations will be imperative.

Details of required services to be determined at the time of each individual Call-up.

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RS 2.2.16 OTHER ADDITIONAL SERVICES

If required, any additional services will be identified at the time of each individual Call-up, and the Consultant will be responsible for the provision and management of these additional services.

RS 2.3 SPECIALIZED SERVICES

The Consultant shall coordinate and manage the specialized services, listed below, provided by Sub-Consultants and /or Specialists* and required to complete project requirements in support of the requested services under a Call-Up.

*Sub-Consultants and/or Specialists refers to Consultants outside of those included in the Consultant's Team Identification, attached at Appendix C, and as identified under TP 10.2. (d) Disbursements.

The consultant may be requested to provide one or more of the following specialized services, either independently or as part of the project for the specific project call-up.

For each of the following services, the Consultant shall:

1. prepare a written verification of project requirements that includes objectives, parameters, timelines and budget, with reference to roles and responsibilities, lines of communications, and submission requirements for approvals, presentations, reviews;
2. attend meetings and record the issues, decisions and actions items (with responsibility) as discussed at each presentation and prepare and distribute minutes of the presentation within 72 hours;
3. prepare and distribute status reports to the Departmental Representative at a frequency to be determined. Status reports must clearly identify any issues raised during the project, detailing the impacts on cost, risk and schedule for the project;
4. implementation strategies that documents task/activities, milestones, process for information gathering, project goals and deliverables;
5. ensure cost estimates commensurate with project requirements;
6. prepare a final Document that consolidates all the requirements of the complete exercise with allowance for resubmission for final approval after predetermined reviews by the Departmental Representative.

RS 2.3.1 HERITAGE CONSERVATION SPECIALIST

If required, the Consultant will be responsible for the provision and management of a Heritage Conservation Specialist to provide the architectural conservation advice and services for the specific project identified at the time of each individual Call-up.

The Consultant shall:

1. Provide advice on the scope of services required to engage the Heritage Conservation Specialist to meet the project objectives.
2. Review and coordinate the Heritage Conservation Specialist's services required within the project parameters.
3. Coordinate with the Heritage Conservation Specialist and the PWGSC Regional Heritage Coordinator the information and documentation required to be issued for review by Federal Heritage Building Review Office (FHBRO) as required.
4. Ensure that the PWGSC Regional Heritage Coordinator's and the FHBRO's recommendations are addressed on a timely fashion and are incorporated into the project deliverables.

The following is an example of a request for heritage conservation services where the Heritage Conservation Specialist would be required:

Scope, Activities and Deliverables:

1. Analysis Stage:

Consultant shall review and report on, as a minimum, the following considerations:

1. Review existing documentation, such as existing heritage record drawings, Heritage Character Statement and Commemorative Integrity Statement as applicable;
2. Develop an inventory of heritage values and character-defining elements;
3. Prepare a condition report of the building elements that have heritage value;
4. Prepare a building envelope screening report;
5. Identify opportunities and strategies to minimize the impact of the proposed scope of work to the building heritage values and character defining elements;
6. Review and report on conservation objectives in relation to other project objectives and economic constraints;
7. Advise on potential archaeological concerns and proactive measures to maintain project schedule.

2. Design Concept Stage:

Consultant shall provide a Design Concept Report, including the following as a minimum:

1. Heritage Conservation Report with an analysis and options, including:

1. Conservation Design approach/ philosophy.
2. Statement of design principles for all disciplines.
3. Approach to the application of conservation policies and practices.
4. Approach to balancing the conservation objectives with other project objectives and economic constraints.
5. Identification of opportunities and strategies that limit the impact to the heritage character defining elements.
6. Analysis of intervention options against the most current edition of the Standards and Guidelines for Conservation of Historic Places in Canada.

3. Design Development Stage:

Consultant shall provide a Design Development Report, including the following aspects to be included, as a minimum, are:

1. For proposed conservation treatments to the character-defining elements, demonstrate compliance with Standards and Guidelines for Conservation of Historic Places in Canada.
2. Identify opportunities and strategies that limit impact on the heritage fabric.
3. Develop conservation objectives in relation to other projects objectives and economic constraints.
4. Update the Heritage Conservation Report from the Design Concept Stage.

4. Construction Documents Stage:

In collaboration with all relevant disciplines, the Consultant shall update and finalize the following:

1. Identification of opportunities and strategies that limit impact to the building heritage values.
2. Approach to balancing the conservation objectives with other project objectives and constraints.
3. Review proposed materials and construction methods, including for removals and reinstatement, to meet heritage conservation objectives.

Details of other required services to be determined at the time of each individual Call-up.

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RS 2.3.2 LANDSCAPE ARCHITECTURAL DESIGN

If required, Consultant will be responsible for the provision, management and coordination of a Landscape Architectural Professional to provide the advice and services required for the specific project identified at the time of each individual Call-up.

The Consultant shall:

1. Provide advice on the requirements for the type of services required to engage the Landscape Architect to meet the project objectives;
2. Engage the Landscape Architect as a sub-consultant;
3. Review and coordinate the Landscape Architect's services required within the project parameters.

Details of required services to be determined at the time of each individual Call-up.

RS 2.3.3 GEOTECHNICAL ENGINEERING

If required, Consultant will be responsible to advise the Departmental Representative of the scope of work for procuring geotechnical engineering services required for the specific project identified at the time of each individual Call-up.

The Consultant shall:

1. Provide advice on scope of services required for geotechnical engineering expertise;
2. Review and coordinate the Geotechnical Engineer's services required within the project parameters.

The following are some examples of the type of projects where the Geotechnical Engineer would be required:

1. Prepare scope of work for geotechnical engineering services on a particular project;
2. Recommend location of bore holes for the proposed building;
3. Review soil testing results and provide recommendations to the Departmental Representative.

Details of required services to be determined at the time of each individual Call-up.

RS 2.3.4 CIVIL ENGINEERING

If required, Consultant will be responsible for the provision, management and coordination of a Civil Engineer to provide the advice and services required for the specific project identified at the time of each individual Call-up.

The Consultant shall:

1. Provide advice on the requirements for the type of services required to engage the Civil Engineer to meet the project objectives;
2. Engage the Civil Engineering firm as a sub-consultant;
3. Review and coordinate the civil engineering services required within the project parameters.

The following are some examples of the type of services where the Civil Engineer would be required:

1. Provide advice and design, contract documents for a specific project.

Details of required services to be determined at the time of each individual Call-up.

RS 2.3.5 BUILDING ENVELOPE SPECIALIST

If required, Consultant will be responsible for the management and coordination of a Building Envelope Specialist to provide the advice and services required for the specific project identified at the time of each individual Call-up.

The Consultant shall:

1. Provide advice on scope of services required to engage the Building Science Specialist to meet the project objectives;
2. Review and coordinate the Building Science Specialist's services required within the project parameters.

The following are some examples of the type of projects where the Building Science Specialist would be required:

1. Facade repair

The Consultant shall prepare design and contract documents for the facade repair of existing buildings and for as-built design investigation of the building assembly. Cost estimates are to be provided with at least two design options for the facade treatment design.

The Consultant shall:

1. Prepare a written verification of project requirements that includes objectives, parameters, timelines and budget, with reference to roles and responsibilities, lines of communications, and submission requirements for approvals, presentations, reviews;
2. Attend meetings and record the issues, decisions and action items (with responsibility) as discussed at each presentation and prepare and distribute minutes of the presentation within 72 hours;
3. Prepare and distribute status reports to the Departmental Representative on a monthly basis. Status reports must clearly identify any issues raised during the project, detailing the impacts on cost, risk and schedule for the project.

2. Roof replacement and green roof design (singly or in combination)

The Consultant shall prepare contract documents for the repair or replacement of the existing roof with a new roof. In doing so, the Consultant shall ensure that appropriate recycling initiatives are undertaken, and that asbestos and other designated substances are properly removed and disposed of in accordance with provincial and federal standards and regulations. The Consultant shall ensure that contract documents reflect the existing conditions and include all roof penetration, roof curbs, roof venting, warranty, and R-value as appropriate for the site condition and functional requirements and operations of the facility and staff. Initial site reviews and building assessments are to be completed in order to determine conditions that affect current and future requirements.

The Consultant shall:

1. Select plant species to satisfy the structural capacity of the roof and the climatic requirement of the zone;
2. Attend meetings and record the issues, decisions and action items (with responsibility) as discussed at each presentation and prepare and distribute minutes of the presentation within 72 hours;

3. Prepare and distribute status reports to the Departmental Representative on a monthly basis. Status reports must clearly identify any issues raised during the project, detailing impacts on cost, risk and the schedule for the project.

3. Window repair and/or replacement

The Consultant shall prepare contract documents for the repair and/or replacement of windows and all associated security screens and insect screens and shall also ensure proper recycling and disposal of associated materials.

The Consultant shall:

1. Ensure the repair and reinstating of all items affected in the window replacement process;
2. Provide Class D, C, B, and A estimates along with submissions and services as indicated in the appended document, "Doing Business with A&E Ontario Region Standing Offers";
3. Attend meetings and record the issues, decisions and action items (with responsibility) as discussed at each presentation, and prepare and distribute minutes of the presentation within 72 hours;
4. Prepare and distribute status reports to the Departmental Representative on a monthly basis. Status reports must clearly identify any issues raised during the project, detailing impacts on cost, risk and the schedule for the project.

Details of required services to be determined at the time of each individual Call-up.

RS 2.3.6 SUSTAINABLE DESIGN SPECIALIST

PWGSC promotes an integrated approach from the earliest stages of a building project and may require consulting services to assist with meeting Sustainable Development Strategy (SDS) Targets and federal government policy requirements with respect to Greening Government Operations.

If required, Consultant will be responsible for the provision, management and coordination of a LEED accredited professional or equivalent to provide the advice and services required for the specific project identified at the time of each individual Call-up.

The Consultant shall:

1. Provide advice on scope of services required to engage the Sustainable Design Specialist to meet the project objectives;
2. Review, integrate and coordinate the Sustainable Design Specialist's advice with the other disciplines and stakeholders to meet the requirements of the project.

The following are some examples of the scope of services where the sustainable design specialist would be required:

1. The Consultant shall prepare sustainable design requirements for existing and proposed projects that meet LEED or Green Globes rating specified by the call-up. The Consultant shall use an integrated design approach and provide a list of areas and options to be selected to meet the sustainable rating determined by the Client Department for its buildings. Monitoring of the sustainable implementation strategy is to be provided by the Consultant;
2. Provide sustainable design advisory services to the Consultant Team;
3. Direct and provide integrated design service for implementation of LEED or Green Globe or BOMA Best targets;
4. Prepare energy efficiency and renewable energy studies;
5. Prepare water efficiency studies;
6. Prepare environmentally preferable building materials and specifications;
7. Implement the recommendations of the sustainability report prepared by others into the design and contract documents;
8. Assess the degree of compliance of a project with established legal requirements and policies;
9. Provide design recommendations to be incorporated into standard procedures, plans and specifications, action plans and/or environmental management plans, to ensure that the facility is designed, constructed and operated in compliance with applicable Legislation, standards and policies, and/or the project meets expected certifications;
10. Assemble and submit the required documentation of a building design project or a recently completed building for assessment and certification by LEED or Green Globe or BOMA Best.

Details of required services to be determined at the time of each individual Call-up.

RS 2.3.7 INFORMATION TECHNOLOGY / TELECOMMUNICATION SPECIALIST

If required, the Consultant will be responsible for the management and coordination of an Information Technology/Telecommunications Professional to provide the advice and services required for the specific project identified at the time of each individual Call-up.

The Consultant shall:

1. Provide advice on the requirements for the type of services required to engage the Information Technology/Telecommunications Professional to meet the project objectives;
2. Review and coordinate the Information Technology/Telecommunications Services required within the project parameters.

The following are some examples of the type of services where the Information Technology / Telecommunications Specialist would be required:

1. Provide advice and design for IT and telecommunication systems for interior fit-up spaces as part of the integrated design service or stand alone service for a specific project.

Details of required services to be determined at the time of each individual Call-up.

RS 2.3.8 BUILDING CODE SPECIALIST

If required, the Consultant will be responsible for the provision, management and coordination of a Building Code Specialist to provide the advice and services required for the specific project identified at the time of each individual Call-up.

The Consultant shall:

1. Provide advice on the requirements for the type of services required to engage the Building Code Specialist to meet the project objectives;
2. Engage the Building Code Specialist firm as a sub-consultant;
3. Review and coordinate the Building Code Specialist services required within the project parameters.

The following are some examples of the type of services where the Building Code Specialist would be required:

1. Provide advice on interpretation of the National Building Code and Ontario Building Code and the differences between the two codes.
2. Review sites and/or projects for conformance of building codes, federal standards and other standards related to building code issues.
3. Provide services related to building code interpretation as part of the integrated services for the project or stand alone services to Federal Departments.

Details of required services to be determined at the time of each individual Call-up.

RS 2.3.9 AUDIO-VISUAL SPECIALIST

If required, the Consultant will be responsible for the provision, management and coordination of an Audio-visual Specialist to provide the advice and services required for the specific project identified at the time of each individual Call-up.

The Consultant shall:

1. Provide advice on the requirements for the type of services required to engage the Audio-visual Specialist to meet the project objectives;
2. Engage the Audio-visual Specialist firm as a sub-consultant;
3. Review and coordinate the Audio-visual Specialist services required within the project parameters.

The following are some examples of the type of services where the Audio-visual Specialist would be required:

1. Provide advice and specifications on type of audio-visual equipment required for training and/or meeting rooms for a specific project.
2. Prepare concept layouts for procurement of audio-visual equipment and special furniture related to audio-visual performance.
3. Prepare contract documents for procurement and installation of audio-visual equipment and special furniture related to audio-visual performance.

Details of required services to be determined at the time of each individual Call-up.

RS 2.3.10 ACOUSTIC SPECIALIST SERVICES

If required, Consultant will be responsible for the provision, management and coordination of an Acoustic Specialist to provide the advice and services required for the specific project identified at the time of each individual Call-up.

The Consultant shall:

1. Provide advice on the requirements for the type of services required to engage the Acoustic Specialist to meet the project objectives;
2. Engage the Acoustic Specialist firm as a sub-consultant;
3. Review and coordinate the Acoustic Specialist's services required within the project parameters.

The following are some examples of the type of services where the Acoustic Specialist would be required:

1. Visit site and investigate the acoustical problem.
2. Provide advice on acoustics solutions to resolve a specific problem or incorporate into a design for a specific space or project.
3. Select acoustical products to meet a certain performance specification.

Details of required services to be determined at the time of each individual Call-up.

RS 2.3.11 SECURITY SPECIALIST

If required, Consultant will be responsible for the provision, management and coordination of a Security Specialist to provide the advice and services required for the specific project identified at the time of each individual Call-up.

The Consultant shall:

1. Provide advice on the requirements for the type of services required to engage the Security Specialist to meet the project objectives;
2. Engage the Security Specialist firm as a sub-consultant;
3. Review and coordinate the Security Specialist services required within the project parameters.

The following are some examples of the type of services where the Security Specialist would be required:

1. Provide advisory services on type of security hardware and security systems required to accommodate all levels of security operations in an office, detention and/or institutional facilities or special purpose spaces.

Details of required services to be determined at the time of each individual Call-up.

RS 2.3.12 SCHEDULING SPECIALIST

If required, Consultant will be responsible for the provision, management and coordination of a Scheduling Specialist to provide the advice and services required for the specific project identified at the time of each individual Call-up.

The Consultant shall:

1. Provide advice on the requirements for the type of services required to engage the Scheduling Specialist to meet the project objectives;
2. Engage the Scheduling Specialist firm as a sub-consultant;
3. Review and coordinate the Scheduling Specialist services required within the project parameters.

The following are some examples of the type of services where the Scheduling Specialist would be required:

1. Provide advisory services on staging and phasing of projects and their impact on the schedule.
2. Prepare construction schedules for cost estimating purposes.

Details of required services to be determined at the time of each individual Call-up.

RS 2.3.13 FOOD SERVICE / KITCHEN CONSULTANT

If required, Consultant will be responsible for the provision, management and coordination of a Food Service / Kitchen Consultant to provide the advice and services required for the specific project identified at the time of each individual Call-up.

The Consultant shall:

1. Provide advice on the requirements for the type of services required to engage the Food Service / Kitchen Consultant to meet the project objectives;
2. Engage the Food Service / Kitchen Consultant firm as a sub-consultant;
3. Review and coordinate the Food Service / Kitchen Consultant services required within the project parameters.

The following are some examples of the type of services where the Food Service / Kitchen Consultant would be required:

1. Visit site and assess condition of kitchen equipment for functionality and compliance with latest codes and standards;
2. Provide advisory services on replacement or improvements to the existing food services and kitchen equipment;
3. Provide conceptual layouts and cost estimates for budget purposes to enable client to procure kitchen equipment.
4. Prepare tender documents and specifications.

Details of required services to be determined at the time of each individual Call-up.

RS 2.3.14 VERTICAL TRANSPORTATION SPECIALIST

If required, Consultant will be responsible for the provision, management and coordination of a vertical transportation specialist to provide the advice and services required for the specific project identified at the time of each individual Call-up.

The Consultant shall:

1. Provide advice on the requirements for the type of services required to engage the vertical transportation specialist to meet the project objectives;
2. Engage the vertical transportation specialist firm as a sub-consultant;
3. Review and coordinate the vertical transportation specialist services required within the project parameters.

The following are some examples of the type of services where the vertical transportation specialist would be required:

1. Provide advisory services on the condition of the existing elevators
2. Assess existing elevators for conformance to latest codes and standards
3. Prepare performance based specifications for proposed elevators

Details of required services to be determined at the time of each individual Call-up.

RS 2.3.15 WAYFINDING AND SIGNAGE SPECIALIST

If required, Consultant will be responsible for the provision, management and coordination of a wayfinding and signage specialist to provide the advice and services required for the specific project identified at the time of each individual Call-up.

The Consultant shall:

1. Provide advice on the requirements for the type of services required to engage wayfinding and signage specialist firm, who is familiar with the Federal Identity Program (FIP) standards, to meet project objectives;
2. Engage the wayfinding and signage specialist firm as a sub-consultant.
3. Review and coordinate the wayfinding and signage specialist services required within the project parameters.

The following are some examples of the type of services where the wayfinding and signage specialist would be required:

1. Provide design services for wayfinding and signage for existing and/or proposed projects.
2. Prepare proposals for procuring signage.

Details of required services to be determined at the time of each individual Call-up.

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RS 2.2.16 ROOFING SPECIALIST

The Consultant may be asked to provide both project integrated and stand alone services in providing advice on proposed roof replacement, assessing existing roof conditions for repairs or replacement of roofs and providing related cost estimates.

Details of required services to be determined at the time of each individual Call-up.

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RS 2.3.17 OTHER SPECIALIZED SERVICES

If required, any other specialized services will be identified at the time of each individual Call-up, and the Consultant will be responsible for the provision, management and coordination of these additional services.

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SUBMISSION REQUIREMENTS AND EVALUATION (SRE)

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

SUBMISSION REQUIREMENTS AND EVALUATION

SRE 1 GENERAL INFORMATION

1.1 Reference to the Selection Procedure

An 'overview of the selection procedure' can be found in General Instructions to Proponents (GI 9).

1.2 Submission of Proposals

The Proponent is responsible for meeting all submission requirements. Please follow detailed instructions in "Submission of Proposals", General Instructions to Proponents (GI 10).

1.3 Calculation of Total Score

For this Standing Offer the Total Score will be established as follows:

Technical Rating x 90%	=	Technical Score (Points)
<u>Price Rating x 10%</u>	=	<u>Price Score (Points)</u>
Total Score		Max. 100 Points

SRE 2 PROPOSAL REQUIREMENTS

2.1 Requirement for Proposal Format

The following proposal format information should be implemented when preparing the proposal.

1. Submit one (1) bound original plus three (3) bound copies of the proposal
2. Paper size should be - 216mm x 279mm (8.5" x 11")
3. Minimum font size - 11 point Times or equal
4. Minimum margins - 12 mm left, right, top, and bottom
5. Double-sided submissions are preferred
6. One (1) 'page' means one side of a 216mm x 279mm (8.5" x 11") sheet of paper
7. 279mm x 432 mm (11" x 17") fold-out sheets for spreadsheets, organization charts etc. will be counted as two pages.
8. The order of the proposals should follow the order of the Request for Standing Offer SRE 3 section.

2.2 Specific Requirements for Proposal Format

The maximum number of pages (including text and graphics) to be submitted for the Rated Requirements under SRE 3.2 is fifty five (55) pages.

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

- Covering letter
- Table of Contents
- Tabs / Page Dividers (provided they are free of text and/or graphics)
- Declaration/Certifications Form (Appendix A)
- Integrity Provisions – List of Names (Appendix A - Annex AA)
- Price Proposal Form (Appendix B)
- Team Identification (Appendix C)
- Front page of the Request for Standing Offer document
- Front page of revision(s) to the Request for Standing Offer document

Consequence of non-compliance: any pages which extend beyond the above page limitation and any other attachments will be extracted from the proposal and will not be

forwarded to the PWGSC Evaluation Board members for evaluation.

SRE 3 SUBMISSION REQUIREMENTS AND EVALUATION

3.1 MANDATORY REQUIREMENTS

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

3.1.1 Declaration/Certifications Form

Proponents must complete, sign and submit the following:

- Appendix A, Declaration / Certifications Form as required.

3.1.2 Licensing, Certification or Authorization

The Proponent shall be authorized to provide Architectural services and must include an architect, a structural engineer, a mechanical engineer, an electrical engineer, an IT/ Telecommunications specialist, sustainable design specialist, functional programmer, an interior designer, a specification writer, a cost estimating specialist, a heritage conservation specialist and a building envelope specialist 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.

You must indicate current license or how you intend to meet the provincial licensing requirements.

3.1.3 Integrity Provisions – List of Names

Proponents who are incorporated, including those bidding as a joint venture, must provide a complete list of names of all individuals who are currently directors of the Proponent. Proponents bidding as sole proprietorship, as well as those bidding as a joint venture, must provide the name of the owner(s). Proponents bidding as societies, firms, or partnerships do not need to provide lists of names. If the required list of names has 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 provide the names within the time frame specified will render the proposal non-responsive. Providing the required names is a mandatory requirement for the issuance of a standing offer.

- Appendix A, Annex AA

3.1.4 Consultant Team Identification

The Consultant Team to be identified must include the following:

Proponent (Prime Consultant)	- Architect
Key Sub-consultants/Specialists	- Structural Engineer - Mechanical Engineer - Electrical Engineer - IT / Telecommunications Specialist - Sustainable Design Specialist - Functional Programmer - Interior Designer - Specification Writer - Cost Estimating Specialist

-
- Heritage Conservation Specialist
 - Building Envelope Specialist

Information required - name of firm, key personnel to be assigned to the standing offer for its duration. For the prime and sub-consultant/specialist(s) indicate current professional license and/or how you intend to meet the Ontario provincial licensing requirements. In the case of a joint venture identify the existing or proposed legal form of the joint venture (refer to General Instructions - Limitation of Submissions).

The Consultant Team is to be identified in Appendix C - Team Identification.

3.2 RATED REQUIREMENTS

Proposals meeting the mandatory requirements will be evaluated in accordance with the following criteria. The clarity of the proposal writing will also form part of the evaluation (use of language, document structure, conciseness and completeness of the responses):

3.2.1 Comprehension of the Scope of Services

1. *What we are looking for:*

A demonstration of the understanding of the overall requirements for services, including specific deliverables, expected approaches, technical expectations, and coordination requirements in delivering projects.

2. *What the Proponent should provide:*

- (a) a detailed list of services, including a description of the specific deliverables;
- (b) an example of a typical work breakdown structure for a project, showing the resources assigned and level of effort for the services rendered;
- (c) a description of broader goals, including federal image design quality and sustainable development;
- (d) risk management strategy;
- (e) project management approach to working with PWGSC, demonstrating an understanding of PWGSC management structure, Client environment, standing offer process and the government's values.

3.2.2 Team Approach / Management of Services

1. *What we are looking for:*

How the Consultant team will be organized in its approach and methodology in the delivery of the Required Services.

2. *What the Proponent should provide:*

A description of:

- (a) Roles and responsibilities of key personnel for the Proponent and Sub-Consultants as members of the Consultant Team;
- (b) Assignment of the resources and availability of back-up personnel;
- (c) Management and organization (reporting structure);
- (d) The Proponent's approach to responding to the individual call-ups which will arise as a result of this standing offer;
- (e) Quality control techniques;
- (f) Demonstration of how the team intends to meet the 'Project Response Time

Requirements
(g) Conflict resolution.

3.2.3 Past Experience

1. *What we are looking for:*

Demonstration that within the past seven (7) years, the Proponent has participated in a range of projects requiring a full scope of services in accordance with the Required Services (RS) section. The Proponent's participation in these projects should have involved the scope of services listed in the Required Services (RS) section.

2. *What the Proponent should provide:*

- a) A brief description of a maximum of five (5) significant projects completed within the last seven (7) years by the Proponent;
- b) The names of key personnel involved as part of the project team and their respective responsibilities per discipline;
- c) The dates the services were provided;
- d) The scope of services rendered, including the project objectives, budget per discipline, constraints and deliverables; and
- e) Client references - name, address and phone of client contact. Reference checks may be completed if deemed necessary.

3. The Proponent (as defined in General Instructions GI 20) 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.

4. Please indicate those projects which were carried out in joint venture and the responsibilities of each of the involved entities in each project.

3.2.4 Senior Personnel Expertise and Experience

1. *What we are looking for:*

A demonstration that the Proponent has senior personnel with the capability, capacity and expertise related to services specified in the Required Services (RS) section.

2. *What the Proponent should provide:*

- (a) submit a maximum of two (2) c.v.'s of Prime Consultant senior personnel and one (1) c.v. of senior personnel for each sub-consultants/specialists of the Consultant Team. For each personnel, clearly indicate the past experience and specific roles and responsibilities related to the services specified in the Required Services (RS) section;
- (b) Identify the personnel's years of experience, the number of years with the firm;
- (c) Education and professional accreditation; and
- (d) accomplishments/achievements/awards.

3.2.5 Project Personnel Expertise and Experience

1. *What we are looking for:*

A demonstration that the Proponent has project personnel with the capability, capacity and expertise to provide the required services and deliverables listed in the Required Services (RS) section.

2. *What the Proponent should provide:*

- (a) submit a maximum of two (2) c.v.'s of prime Consultant project personnel and one (1) c.v.'s of project personnel for each sub-consultants/specialists of the Consultant Team which will perform the majority of the work resulting from the individual Call-ups. For each personnel, clearly indicate the past experience and specific roles and responsibilities related to the services specified in the Required Services (RS) section;
- (b) Identify the personnel's years of experience, the number of years with the firm;
- (c) Education and professional accreditation; and
- (d) accomplishments/achievements/awards.

3.2.6 Hypothetical Projects

1. *What we are looking for:*

Describe the approach and methodology that you would employ to deliver the project in a general written response only.

The clarity of the report writing will form part of the evaluation (use of language, document structure, conciseness and completeness of the response).

2. *What the Proponent should provide for each hypothetical project:*

- (a) description of the approach and methodology that you would employ to meet the project objectives;
- (b) summary of your proposed work breakdown structure, including: the services and deliverables to be rendered; the relevant resources assigned; project schedule; and level of effort expressed in number of hours for the identified resources;
- (c) project management approach to working with PWGSC;
- (d) problem-solving methodology for any particular concern or issues in implementing the work.

3. *The Facts:*

When responding to the following hypothetical fact situations, be advised that the hypothetical is to be used for evaluation purposes only. Areas and details in the hypothetical are provided only to give the Proponent sufficient material from which to develop an outline of their approach and methodology to the resolution of the issues. Calculation of a fee for the provision of these services is not required.

PROJECT 1

Situation:

PWGSC is doing a space optimization project for their federal government building in Sudbury. The

objective of the project is to occupy the existing 1,800 m2 usable space based on the Government of Canada Workplace 2.0 Standards. The functional requirements include general office space for 128 FTEs, meeting rooms, high-density storage, collaborative areas and support space. The impact of the space optimization on the existing mechanical and electrical systems also needs to be reviewed and upgraded as required. The building has been designated "recognized" heritage by the FHBRO.

Scope of services required:

Your firm has been asked to submit a proposal to provide services in two phases.

The first phase of this project is to provide a Feasibility Report that recommends a cost effective and efficient renovation strategy that addresses the space optimization objectives using a 25 year life cycle.

The second phase of this project is to provide basic services for the design and implementation of the recommendations included in the Feasibility Report. The services include the design of the new office fit-up, including modifications to the mechanical and electrical systems to suit, as well as furniture layouts showing general office space, support spaces and high density mobile storage (HDMS), and power/data/voice requirements. Your firm and your team of sub-consultants and specialists will also prepare contract documents for the project to be issued for tender by PWGSC, provide contract administration during the construction and provide basic site review services up to building occupancy in April 2017.

Provide a list of sub-consultants and specialists required for the project team, explain how the firm will deliver the two phases of services, and describe the scope of services and deliverables provided, with the levels of effort per discipline/specialists to complete the project. Also describe the risks that may impact the schedule to complete the project on time.

PROJECT 2

Situation:

Health Canada is planning to renovate their headquarters located in Toronto. The building was constructed in 1971 and consists of offices, laboratories and support spaces on 4 floors. PWGSC was asked to hire a Consultant to review their existing space and upgrade their facility and maximize their overall productivity. The building is also known to have some issues in terms of fire separations between the different interior uses. The renovation is to be done in phases as Health Canada requires maintaining most areas operational during the construction.

The building is to meet PWGSC's strategic framework for sustainability - LEED - Silver. The project also needs to meet the current edition of the National Building Code and Fire Code. The Government of Canada Workplace 2.0 Fit-Up Standards will apply only to the general office space portion of the program.

Scope of services required:

Your firm has been asked to submit a proposal to provide services in functional programming which include horizontal zoning plans and vertical stacking plans and an estimated cost for the proposed new layout with the associated laboratory casework and equipment, and mechanical and electrical equipment and system upgrades as required to meet the current applicable Codes. The project will also include the development of a sustainable design strategy on how to achieve LEED – Silver, including a cost benefit analysis of the building systems and energy saving opportunities.

Provide a list of sub-consultants and specialists required for the project team and describe the scope of services and deliverables with the levels of effort per discipline/specialists to complete the project.

Also describe the risks that may impact the schedule to complete the project on time.

3.3 EVALUATION AND RATING

Proposals that are responsive (i.e. which meet all the mandatory requirements set out in the Request for Standing Offer) 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 proposal will be evaluated in accordance with the following to establish Technical Ratings:

Criterion	Weight Factor	Rating	Weighted Rating
Comprehension of the Scope of Services	1.0	0 - 10	0 - 10
Team Approach / Management of Services	1.5	0 - 10	0 - 15
Past Experience	1.5	0 - 10	0 - 15
Senior Personnel Expertise and Experience	1.5	0 - 10	0 - 15
Project Personnel Expertise and Experience	2.0	0 - 10	0 - 20
Hypothetical Project 1	1.5	0 - 10	0 - 15
Hypothetical Project 2	1.0	0 - 10	0 - 10
Total	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

To be considered further, proponents **must** achieve a minimum weighted rating of fifty (50) out of the hundred (100) points available for the rated technical criteria as specified above.

No further consideration will be given to proponents not achieving the pass mark of fifty (50) points.

SRE 4 PRICE OF SERVICES

All price proposal envelopes corresponding to responsive proposals which have achieved the pass mark of fifty (50) points are opened upon completion of the technical evaluation. When there are three or more responsive proposals, an average price is determined by adding all the price proposals together and dividing the total by the number of price proposals being opened. This calculation will not be conducted when one or two responsive proposals are received.

All price proposals which are greater than twenty-five percent (25%) above the average price will be set aside and will 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 5 TOTAL SCORE

Total Scores will be established in accordance with the following:

Rating	Possible Range	% of Total Score	Score (Points)
Technical Rating	0 - 100	90	0 - 90
Price Rating	0 - 100	10	0 - 10
Total Score		100	0 - 100

The proposals will be ranked in order from the highest to the lowest using the total score (technical plus price). The proponents submitting the highest ranked proposals will be recommended for issuance of a standing offer. In the case of a tie, the Proponent submitting the lower price for the services will be selected. Canada reserves the right to issue up to four (4) Standing Offers for the Central Ontario, South Western Ontario regions, up to three (3) Standing Offers for the Northern Ontario region and up to five (5) Standing Offers for the Eastern Ontario region.

SRE 6 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 "Submission of Proposals", General Instructions to Proponents (GI10).

- ☐ Proposal
 - 1 original + 3 copies
 - ☐ Declaration / Certifications Form
 - completed and signed form provided in Appendix A
 - ☐ Integrity Provisions – List of Names
 - Appendix A, Annex AA - list of directors / owners
 - ☐ Integrity Provisions
 - declaration form (as applicable, pursuant to subsection Declaration of Convicted Offences, of the Integrity Provisions – Proposal section, of the General Instructions)
 - ☐ Team Identification Form
 - see typical format in Appendix C
 - ☐ Front page of Request for Standing Offer
 - ☐ Front page of Revision(s) to a Request for Standing Offer
- In a separate envelope:
- ☐ Price Proposal Form
 - one (1) completed and submitted in a separate envelope

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APPENDIX A

DECLARATION/CERTIFICATIONS FORM

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Declaration / Certifications Form (page 1 of 5)

Name of Proponent:

Street Address:

Mailing Address (if different than street address)

City:
Prov./Terr./State:
Postal/ZIP Code:
Telephone Number:()
Fax Number: ()
E-Mail:
Procurement Business Number:

City:
Prov./Terr./State:
Postal/ZIP Code:

Type of Organization

☐ Sole Proprietorship
☐ Partnership
☐ Corporation
☐ Joint Venture

Size of Organization

Number of Employees _____
Graduate Architects/ _____
Prof. Engineers: _____
Other Professionals _____
Technical Support _____
_____ Other

Declaration / Certifications Form (page 2 of 5)

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 may set-aside a Standing Offer, or will declare a consultant in default, if a certification is found to be untrue, whether during the proposal evaluation period, during the Standing Offer period, or during the contract period. Canada will have the right to ask for additional information to verify the Proponent's certifications. Failure to comply with any request or requirement imposed by Canada may render the proposal non-responsive, may result in the Standing Offer set-aside, or constitute a default under the contract.

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

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

Complete both A and B.

A. Check 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 certifies having a combined workforce in Canada of 100 or more employees; and

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

OR

- ☐ A5.2. The Proponent certifies having submitted the Agreement to Implement Employment Equity (LAB1168) to ESDC-Labour. As this is a condition to issuance of a standing offer, proceed to completing the form Agreement to Implement Employment Equity (LAB1168), duly signing it, and transmit it to ESDC-Labour.

B. Check only one of the following:

- ☐ B1. The Proponent is not a Joint Venture.

OR

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

Declaration / Certifications Form (page 3 of 5)

Former Public Servant (FPS) - Certification

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

Definitions

For the purposes of this clause,

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

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

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

"pension" means a pension or annual allowance paid under the *Public Service Superannuation Act* (PSSA), R.S., 1985, c. P-36, and any increases paid pursuant to the *Supplementary Retirement Benefits Act*, R.S., 1985, c. S-24 as it affects the PSSA. It does not include pensions payable pursuant to the *Canadian Forces Superannuation Act*, R.S., 1985, c. C-17, the *Defence Services Pension Continuation Act*, 1970, c. D-3, the *Royal Canadian Mounted Police Pension Continuation Act*, 1970, c. R-10, and the *Royal Canadian Mounted Police Superannuation Act*, R.S., 1985, c. R-11, the *Members of Parliament Retiring Allowances Act*, R.S., 1985, c. M-5, and that portion of pension payable to the *Canada Pension Plan Act*, R.S., 1985, c. C-8.

Former Public Servant in Receipt of a Pension

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

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

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

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

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Declaration / Certifications Form (page 4 of 5)

Work Force Adjustment Directive

Is the Proponent a FPS who received a lump sum payment pursuant to the terms of a Work Force Adjustment Directive? 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 the Goods and Services Tax or Harmonized Sales Tax.

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Declaration / Certifications Form (page 5 of 5)

Name of Proponent:

This Declaration forms part of the offer.

Education, Professional Accreditation and Experience:

All statements made with regard to the education, professional accreditation and the experience of individuals proposed for providing services under the Standing Offer are accurate and factual, and we are aware that Canada reserves the right to verify any information provided in this regard and that untrue statements may result in the proposal being declared non-responsive. Should a verification by Canada disclose untrue statements, Canada shall have the right to treat any standing offer resulting from this solicitation as being in default and to terminate it accordingly.

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.

Name (print): _____

Capacity: _____

Signature _____

Telephone Number: () _____

Fax Number: () _____

E-mail: _____

Date: _____

During proposal evaluation period, PWGSC contact will be with the above named person.

This Appendix A should be completed and submitted with the proposal, but may be submitted afterwards as follows: if any of these required certifications is not completed and submitted with the proposal, the Contracting Authority will inform the Proponent of a time frame within which to provide the information. Failure to comply with the request of the Contracting Authority and to provide the certifications within the time frame provided will render the proposal non-responsive.

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APPENDIX A ANNEX AA

INTEGRITY PROVISIONS – LIST OF NAMES

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Proponents who are incorporated, including those bidding as a joint venture, must provide a complete list of names of all individuals who are currently directors of the Proponent. Proponents bidding as sole proprietorship, as well as those bidding as a joint venture, must provide the name of the owner(s). Proponents bidding as societies, firms, or partnerships do not need to provide lists of names. If the required list of names has 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 provide the names within the time frame specified will render the proposal non-responsive. Providing the required names is a mandatory requirement for the issuance of a standing offer.

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APPENDIX B

PRICE PROPOSAL FORM

APPENDIX B - PRICE PROPOSAL

INSTRUCTIONS

1. Complete the price proposal form and submit in a separate sealed envelope, with the Proponent's name, Solicitation Number, and "Price Proposal Form" typed on the outside.
2. Price proposals are not to include HST and will be evaluated in Canadian Dollars.
3. Proponents are not to alter or add information to the form.
4. In order to ensure that fair and competitive hourly rates are received, the following requirements must be strictly adhered to: Proponents **must** provide an hourly rate for **each** category of personnel. In the event that the firm consists of fewer personnel than listed, provide an hourly rate that corresponds with each position listed. The hourly rate provided must be equal to or greater than the hourly rate provided for the position listed below it. For example, if the firm does not have an Intermediate Personnel, the hourly rate provided must be equal to or greater than the hourly rate provided for the Junior Personnel. **There must be no \$0 value nor NIL value. Failure to insert an hourly rate for each category of personnel will render your proposal non-responsive.**
5. One (1) price proposal evaluation grid is provided for each of the disciplines within each identified Region(s) under this RFSO. **Proponents must fill out (in its entirety) the price proposal grid(s) for each discipline(s) within each Region on which they intend to bid, even if the rates offered are the same for one, several or all Regions.** If a price proposal evaluation grid is not duly completed (column B) for any one of the identified disciplines, then the proponent's proposal for that Region will be considered non-responsive. In the case of arithmetic error in column C, the values in column B will prevail.
6. The hourly rates identified for all disciplines, including sub-consultants and specialists will be for the duration of the Standing Offer.
7. Fixed hourly rates for each category are to be provided in column B and are then multiplied by the weight factor in column A (provided for evaluation purpose only).

CENTRAL ONTARIO

Name of Proponent: _____

Address: _____

1. ARCHITECTURAL

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Architect	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

2. STRUCTURAL ENGINEER

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Engineer	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

3. MECHANICAL ENGINEER

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Engineer	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

4. ELECTRICAL ENGINEER

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Engineer	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

5. IT/TELECOMMUNICATIONS

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

6. SUSTAINABLE DESIGN SPECIALIST

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

7. FUNCTIONAL PROGRAMMER

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$

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Administrative Support	5	\$	\$
Total	100		\$

8. INTERIOR DESIGNER

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

9. SPECIFICATION WRITER

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

10. COST ESTIMATING SPECIALIST

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

11. HERITAGE CONSERVATION SPECIALIST

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Personnel	25	\$	\$

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Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

12. BUILDING ENVELOPE SPECIALIST

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

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CCC No./N° CCC - FMS No./N° VME

TOTAL FOR EVALUATION PURPOSES FOR CENTRAL ONTARIO

Discipline	Weight Factor (A)	Sub-Total from tables above (B)	Total (C) = (A X B)
Architectural	45	\$	\$
Structural Engineer	5	\$	\$
Mechanical Engineer	15	\$	\$
Electrical Engineer	15	\$	\$
IT/Telecommunications	2.5	\$	\$
Sustainable Design Specialist	2.5	\$	\$
Functional Programmer	2.5	\$	\$
Interior Designer	2.5	\$	\$
Specification Writer	2.5	\$	\$
Cost Estimating Specialist	2.5	\$	\$
Heritage Conservation Specialist	2.5	\$	\$
Building Envelope Specialist	2.5	\$	\$
Total for all disciplines	100		\$

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EASTERN ONTARIO

Name of Proponent: _____

Address: _____

1. ARCHITECTURAL

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Architect	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

2. STRUCTURAL ENGINEER

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Engineer	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

3. MECHANICAL ENGINEER

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Engineer	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

4. ELECTRICAL ENGINEER

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Engineer	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

5. IT/TELECOMMUNICATIONS

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

6. SUSTAINABLE DESIGN SPECIALIST

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

7. FUNCTIONAL PROGRAMMER

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$

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Administrative Support	5	\$	\$
Total	100		\$

8. INTERIOR DESIGNER

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

9. SPECIFICATION WRITER

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

10. COST ESTIMATING SPECIALIST

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

11. HERITAGE CONSERVATION SPECIALIST

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Personnel	25	\$	\$

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Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

12. BUILDING ENVELOPE SPECIALIST

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

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TOTAL FOR EVALUATION PURPOSES FOR EASTERN ONTARIO

Discipline	Weight Factor (A)	Sub-Total from tables above (B)	Total (C) = (A X B)
Architectural	45	\$	\$
Structural Engineer	5	\$	\$
Mechanical Engineer	15	\$	\$
Electrical Engineer	15	\$	\$
IT/Telecommunications	2.5	\$	\$
Sustainable Design Specialist	2.5	\$	\$
Functional Programmer	2.5	\$	\$
Interior Designer	2.5	\$	\$
Specification Writer	2.5	\$	\$
Cost Estimating Specialist	2.5	\$	\$
Heritage Conservation Specialist	2.5	\$	\$
Building Envelope Specialist	2.5	\$	\$
Total for all disciplines	100		\$

SOUTH WESTERN ONTARIO

Name of Proponent: _____

Address: _____

1. ARCHITECTURAL

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Architect	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

2. STRUCTURAL ENGINEER

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Engineer	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

3. MECHANICAL ENGINEER

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Engineer	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

4. ELECTRICAL ENGINEER

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Engineer	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

5. IT/TELECOMMUNICATIONS

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

6. SUSTAINABLE DESIGN SPECIALIST

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

7. FUNCTIONAL PROGRAMMER

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$

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Administrative Support	5	\$	\$
Total	100		\$

8. INTERIOR DESIGNER

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

9. SPECIFICATION WRITER

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

10. COST ESTIMATING SPECIALIST

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

11. HERITAGE CONSERVATION SPECIALIST

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Personnel	25	\$	\$

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Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

12. BUILDING ENVELOPE SPECIALIST

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

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TOTAL FOR EVALUATION PURPOSES FOR SOUTH WESTERN ONTARIO

Discipline	Weight Factor (A)	Sub-Total from tables above (B)	Total (C) = (A X B)
Architectural	45	\$	\$
Structural Engineer	5	\$	\$
Mechanical Engineer	15	\$	\$
Electrical Engineer	15	\$	\$
IT/Telecommunications	2.5	\$	\$
Sustainable Design Specialist	2.5	\$	\$
Functional Programmer	2.5	\$	\$
Interior Designer	2.5	\$	\$
Specification Writer	2.5	\$	\$
Cost Estimating Specialist	2.5	\$	\$
Heritage Conservation Specialist	2.5	\$	\$
Building Envelope Specialist	2.5	\$	\$
Total for all disciplines	100		\$

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NORTHERN ONTARIO

Name of Proponent: _____

Address: _____

1. ARCHITECTURAL

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Architect	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

2. STRUCTURAL ENGINEER

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Engineer	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

3. MECHANICAL ENGINEER

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Engineer	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

4. ELECTRICAL ENGINEER

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Engineer	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

5. IT/TELECOMMUNICATIONS

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

6. SUSTAINABLE DESIGN SPECIALIST

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

7. FUNCTIONAL PROGRAMMER

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$

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Administrative Support	5	\$	\$
Total	100		\$

8. INTERIOR DESIGNER

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

9. SPECIFICATION WRITER

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

10. COST ESTIMATING SPECIALIST

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

11. HERITAGE CONSERVATION SPECIALIST

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Personnel	25	\$	\$

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Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

12. BUILDING ENVELOPE SPECIALIST

Category of Personnel	Weight Factor (A)	Fixed Hourly Rate (B)	Total (C) = (A X B)
Partners or principals of the firm	5	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	40	\$	\$
Junior Personnel	25	\$	\$
Administrative Support	5	\$	\$
Total	100		\$

Solicitation No. - N° de l'invitation
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Buyer ID - Id de l'acheteur
PWL027

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TOTAL FOR EVALUATION PURPOSES FOR NORTHERN ONTARIO

Discipline	Weight Factor (A)	Sub-Total from tables above (B)	Total (C) = (A X B)
Architectural	45	\$	\$
Structural Engineer	5	\$	\$
Mechanical Engineer	15	\$	\$
Electrical Engineer	15	\$	\$
IT/Telecommunications	2.5	\$	\$
Sustainable Design Specialist	2.5	\$	\$
Functional Programmer	2.5	\$	\$
Interior Designer	2.5	\$	\$
Specification Writer	2.5	\$	\$
Cost Estimating Specialist	2.5	\$	\$
Heritage Conservation Specialist	2.5	\$	\$
Building Envelope Specialist	2.5	\$	\$
Total for all disciplines	100		\$

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Signature of Consultant or Joint Venture Consultants.

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signature

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signature

.....
capacity

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capacity

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signature

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signature

.....
capacity

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capacity

END OF PRICE PROPOSAL FORM

Solicitation No. - N° de l'invitation
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CCC No./N° CCC - FMS No./N° VME

APPENDIX C

TEAM IDENTIFICATION

TEAM IDENTIFICATION

INSTRUCTIONS

1. Complete the Consultant Team Identification in the format provided below, including the following information for each identified team member of the Consultant Team; Name, Category Personnel and Provincial Professional Licensing Status.
2. Provide short C.V.s for each identified team member. C.V's should have sufficient detail to explain experience in the respective discipline(s).
3. C.V's provided under Appendix C - Team Identification, will not form part of the evaluation or page limitation identified under the SRE 3.2 Rated Requirements section, and are to appear under the Appendix C section only.

Please note, the SRE 3.2 Rated Requirements section has a separate requirement which includes the provision of C.V's for evaluation purposes (SRE 3.2.4 and 3.2.5).

I. Prime Consultant (Proponent): Architect

Firm:

Name

Key Individuals:

1. Name
2. Category of Peronnel (i.e.
Principal, Senior,Intermediate)
3. Provincial professional
licensing status.
.....
.....

II. A. Key Sub Consultants/Specialist: Structural Engineer

Firm:

Name

Key Individuals:

1. Name
2. Category of Peronnel (i.e.
Principal, Senior,Intermediate)
3. Provincial professional
licensing status.
.....
.....

B. Key Sub Consultants/Specialist: Mechanical Engineer

Firm:

Name

Key Individuals:

1. Name
2. Category of Peronnel (i.e. Principal, Senior, Intermediate)
3. Provincial professional licensing status.

C. Key Sub Consultants/Specialist: Electrical Engineer

Firm:

Name

Key Individuals:

1. Name
2. Category of Peronnel (i.e. Principal, Senior, Intermediate)
3. Provincial professional licensing status.

D. Key Sub Consultants/Specialist: IT/Telecommunications Engineer

Firm:

Name

Key Individuals:

1. Name
2. Category of Peronnel (i.e. Principal, Senior, Intermediate)
3. Provincial professional licensing status.

E. Key Sub Consultants/Specialist: Sustainable Design Specialist

Firm:

Name

Key Individuals:

1. Name

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2. Category of Peronnel (i.e.
Principal, Senior,Intermediate)
3. Provincial professional
licensing status.
.....
.....

F. Key Sub Consultants/Specialist: Functional Programmer

Firm:

Name

Key Individuals:

1. Name
2. Category of Peronnel (i.e.
Principal, Senior,Intermediate)
3. Provincial professional
licensing status.
.....
.....

G. Key Sub Consultants/Specialist: Interior Designer

Firm:

Name

Key Individuals:

1. Name
2. Category of Peronnel (i.e.
Principal, Senior,Intermediate)
3. Provincial professional
licensing status.
.....
.....

H. Key Sub Consultants/Specialist: Specification Writer

Firm:

Name

Key Individuals:

1. Name
2. Category of Peronnel (i.e.
Principal, Senior,Intermediate)
3. Provincial professional
licensing status.
.....
.....

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I. Key Sub Consultants/Specialist: Cost Estimating Specialist

Firm:

Name

Key Individuals:

1. Name

2. Category of Peronnel (i.e.

Principal, Senior,Intermediate)

3. Provincial professional

licensing status.

J. Key Sub Consultants/Specialist: Heritage Conservation Specialist

Firm:

Name

Key Individuals:

1. Name

2. Category of Peronnel (i.e.

Principal, Senior,Intermediate)

3. Provincial professional

licensing status.

K. Key Sub Consultants/Specialist: Building Envelope Specialist

Firm:

Name

Key Individuals:

1. Name

2. Category of Peronnel (i.e.

Principal, Senior,Intermediate)

3. Provincial professional

licensing status.

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EQ754-161519/A

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
PWL027

Client Ref. No. - N° de réf. du client
EQ754-161519

File No. - N° du dossier
PWL-5-38131

CCC No./N° CCC - FMS No./N° VME

APPENDIX D

DOING BUSINESS WITH A&E ONTARIO REGION STANDING OFFERS

(see attached)

Solicitation No. - N° de l'invitation
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Client Ref. No. - N° de réf. du client
EQ754-161519

File No. - N° du dossier
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CCC No./N° CCC - FMS No./N° VME

APPENDIX E

PERFORMANCE EVALUATION

CONSULTANT PERFORMANCE EVALUATION REPORT FORM (CPERF)

(see attached)

Solicitation No. - N° de l'invitation
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Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
PWL027

Client Ref. No. - N° de réf. du client
EQ754-161519

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CCC No./N° CCC - FMS No./N° VME

The performance of the Consultant during and upon completion of the services shall be evaluated by Canada. The evaluation includes all or some of the following criteria: Design, Quality of Results, Management, Time and Cost. Should the Consultant's performance be considered unsatisfactory, the Consultant may be declared ineligible for future contracts. The form PW GSC-TPSGC 2913-1, SELECT - Consultant Performance Evaluation Report (<http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/documents/2913-1.pdf>), is used to record the performance

APPENDIX F

ONTARIO REGION -

GEOGRAPHIC BOUNDARIES BY COUNTY

Central

Dufferin
Durham
Haliburton
Kawartha Lakes
Muskoka
Nippising
Northumberland
Parry Sound
Peel
Peterborough
Simcoe
Toronto
Victoria
York

Eastern

Frontenac
Hastings
Lanark
Leeds and Grenville
Lennox and Addington
Prescott Edward
Stormont Dundas and
Glengarry
Renfrew
Prince Edward
Russell

South Western

Brant
Bruce
Elgin
Essex
Grey
Haldimand
Halton
Waterloo
Wellington
Hamilton
Wentworth
Huron
Kent
Lambton
Middlesex
Niagara
Oxford
Perth
Manitoulin

Northern

Algoma
Cochrane
Kenora, East of 9 0°
longitude, ETZ
Sudbury
Thunder bay
Timiskaming
Rainy River
Kenora, West of 9 0°
longitude, CTZ

CTZ = Central Time
Zone
ETZ = Eastern Time
Zone

Excludes the municipality of Ottawa-Carleton

Doing Business with A&E

Ontario Region

Standing Offers

Table of Content:

Section 1.....General

Section 2.....Architectural Design

Section 3.....Landscaping and Site Development

Section 4.....Specification Brief

Section 5.....Marine

Section 6.....Risk Management

Section 7A.....Civil Design

Section 7B.....Bridge Design

Section 8.....Structural Design

Section 9.....Mechanical Design

Section 10A..... Electrical Work Procedures

Section 10B..... General Electrical Design

**Section 10C..... General Electrical Design (CSC) Correctional Service
Canada**

Section 11.....Cost Planning and Control

Section 12.....Elemental Cost Analysis

Section 13.....Time Management

Section 14.....Drawing Conversion to Portable Document Format (PDF)

SECTION 1 GENERAL DESIGN, DOCUMENTATION AND SUBMISSION STANDARDS

1.1 Introduction

The purpose of this document is to help the consultants to perform their work while dealing with the Ontario Region of PWGSC. It is to complement the requirements stated in the main body of the RFP or the RFSO, in particular in the Project Brief and the Required Services sections. This document elaborates on specific items that are particular to the Ontario Region but in no way does it supersede the main clauses of the RFP or the RFSO.

The Consultant is responsible to ensure they receive from the PWGSC Project Manager, an updated copy of Appendix D current at the time of the call up on the standing offer.

1.2 Document Management

All project documents are to be electronically distributed to project stakeholders through the use of a commercially available, secure internet, web based browser software application system. Documents must be distributed in pdf format, with an e-mail notification system to stakeholders. Individual pdf files must not exceed 4MB. Version and document control features are required to enable review of previous documents issued. The document system must be managed and operated by the consultant, who shall control secure access rights to project stakeholders identified by the PWGSC Project Manager.

1.3 Sustainability

Use sustainable design principles to achieve a minimum building performance rating of:

1. New construction projects are to meet the standards of LEED Gold.
2. Major renovation projects ($\pm 5M$ of construction cost) are to meet the standards of LEED Silver.
3. Heritage building projects are to meet the standards of "Sustainability Rating System for Heritage Buildings and Sites".
4. For all other projects, the principles of sustainability shall be followed.

Comply with PWGSC- Strategic Framework for Sustainability in Buildings, April 1, 2012.

1.4 Drawings

The drawings are complementary to the specification. They should describe the extent of work. Do not rely on a mandatory site visit to complete the information. Notes such as "verify on site", "as instructed", "to be determined on site by Departmental Representative", will not generate accurate bids and may result in unnecessarily high bid prices. The drawings shall allow the Bidders to bid accurately and calculate all quantities. If quantities are impossible to show (i.e. cracks to be repaired) give a quantity for bid purposes.

Construction drawings should be strictly technical drawings, fully detailed and dimensioned, clearly and accurately drawn, complete with all necessary descriptive notes. On all drawings present the work to be done as clearly as possible. Draw details at sufficient scales to eliminate doubt as to the method of construction, materials and quantities required. Required sheet order: plans; elevations; main sections; and details. Avoid wasted space but ensure that sheets are not overcrowded or difficult to read.

Do not submit blank sheets in progress sets of drawings issued for review.

The terminology used should be consistent throughout the drawings and specification.

Design on a modular basis to take advantage of dimensional standardization and co-ordination.

Drawings have to be in metric only even if the project is to renovate an old building. Any references to imperial units will not be accepted.

Consultants MUST follow the "PWGSC CADD Standards" attached at the end or available electronically at:

- PWGSC's ftp site: <ftp://ftp.pwgsc.gc.ca/rps/Specifications/Drawings/CADD%20Standards/>
- On the web, at: <http://www.tpsgc-pwgsc.gc.ca/biens-property/cdao-cadd/index-eng.html>
(this document refers to NCR contacts)

When prepared by Consultants, the final drawings (original) shall bear the Professional's seal and signature.

1.5 Standard Drawing Information

PWGSC will provide the following standard items to the consultants with respect to CADD

- AutoCAD format Borders (14 sizes)
- Site legend w/ symbols
- AutoCAD plotting ctb (colour table) files
- Graphic Bar Scales and North Arrow in AutoCAD format
- AutoCAD template files

1.6 Detail / Section numbers

Use the 3-part "bubble" provided in the supplied borders to reference details, sections, etc. The 3-part "bubble" will contain the detail / section number, the number of the drawing where it is required and the number of the drawing where it is detailed. This pattern MUST be adhered to.

1.7 Presentation Requirements

Present drawings in sets comprising the applicable architectural, interior design, structural, mechanical, electrical, landscaping and civil drawings in that order. All drawings shall be of uniform standard size. Print with black lines on white paper. 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.

1.8 Title Sheets

Title sheets may be used at the Consultant's discretion, for design presentations or on large sets of Construction drawings.

1.9 Indices

Provide an index at the front of each set of drawings. Where a large number of sheets are involved, place the index on a title sheet or at the front of each set of the various disciplines. Include drawing indices in the specifications after the Table of Contents.

1.10 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. Coordinate abbreviations and acronyms with PWGSC Section 01 42 13.

1.11 Drawing Notes

Indicate all materials, systems and products on the drawings by means of numbered notes.

Demolition Notes:	note number in a 7mm square box
Construction Notes:	note number in a 7mm diameter circle
Revision Notes:	note number in a 7mm triangle
Assembly Notes:	note number in a 10mm hexagon

adjacent to the appropriate location on the plan, section or detail with an arrow connecting the box, circle, triangle or hexagon to the specific material, system or product indicated on the drawing. Provide a list of drawing notes relating to the sequentially numbered notes on the right hand side of the drawing sheet adjacent to the title block. Minimum text size: 2mm. Do not repeat text that is already in the SACC or specification.

1.12 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.

1.13 Abbreviation Standards

Use text abbreviations with discretion, to ensure that there will be no misunderstanding on the drawings. Follow abbreviation list provided as part of specification standards from the ftp site. Co-ordinate with PWGSC Section 01 42 13 Abbreviations and Acronyms.

1.14 Drawing Symbols

Follow generally accepted drawing conventions, understandable by the construction trades, if more symbols are required than are provided by PWGSC.

1.15 Drawing Scale

For all drawings, including details, provide a graphic scale for each drawing and detail. PDF files shall be created to full plotted scale.

1.16 As-Built and Record Information

As-built information is received from the Contractor. It contains drawings, specifications, shop drawings, submittals, samples, etc. It is noted as such by the Contractor.

Record drawings and specifications are updated originals prepared by the Consultants based on the information supplied by the Contractor in the as-built.

1.17 Shop Drawing Submittal Log

Fill in and submit the PWGSC Ontario Region Shop Drawing Submittal Log with each application for

payment. Shop Drawing Submittal Log is available in MS Excel from the PWGSC ftp site at:
<ftp://ftp.pwgsc.gc.ca/rps/Specifications/Master%20Schedules%20and%20Small%20Drawings/EXCEL/>

1.18 Bid Documents Format

All bid documents will be submitted by the consultant in the bid document files native electronic format as well as .pdf format, as follows:

PDF Properties:

1. Each pdf file must be of a uniform and standard pdf paper size within the contents of each file.

Drawings:

1. Each drawing is to be converted to a PDF file. 1 drawing per file.
2. The file shall be named with the drawing number and then the title of the drawing from the drawing title block (e.g. A01 - Architectural Cover Page)

Specifications:

1. The complete Project Specification is to be converted to one PDF file, with a pdf page size of 8.5" x 11", portrait orientation.. One (1) PDF per complete project specification, all Divisions. The file shall be named with the project number and then the word Specification (e.g. R.123456.001 Specification).
2. Where tables or schedules within the Specification do not conform to the 8.5" x 11" format, they are to be converted to PDF files of the appropriate sheet size and included in the submission as appendices. Identify such files as appendices in the Specification Table of Contents.
3. Any amendments shall be converted to a PDF file. Text should be converted into one file. Drawings shall be one drawing per PDF file. The name for each text file shall be "Amendment Number #." The name for each amendment drawing file shall be "Amendment Number # - Drawing XXX" (where XXX is the name of the drawing).

Creation of CD/DVDs (when specifically requested):

1. The files above shall be burned onto CD/DVD(s).
2. When the PDFs are burned onto the CD/DVD, folders shall be created. The folders will be "Drawings", "Specifications", and "Amendments". The Plans and Specifications - Table of Contents PDF will reside at the uppermost level with the three folders.
3. CD/DVDs should be labeled with the following information:
 - a) Description from the Drawing Title Block
 - b) Project Number
 - c) Solicitation Number
 - d) "Original Solicitation" OR "Amendment #X" OR "Addenda # X"
 - e) Number of CDs in this grouping (e.g. 1 of 3)

1.19 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 sites: SACC at
<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/5/R>

and the CAD standards at <http://www.tpsgc-pwgsc.gc.ca/biens-property/cdao-cadd/index-eng.html> . Any questions should be directed to the PWGSC Project Manager.

1.20 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.

Submissions of the project manual that do not comply with the RFP design and submission requirements, and/or are not compliant to the current codes and standards may be subject to written complaints to the consultant's licensing and accreditation bodies such as the, OAA, AC (formerly RAIC), PEO, CIQS, AATO, OACETT, CSC - Construction Specifications Canada, consultant's liability insurance carrier, etc.

1.21 Fit-up Standards

The design for general-purpose office space accommodation for all Government of Canada departments or agencies is to follow and conform to the latest Fit-Up Standards including the selection of systems, materials, furnishings and equipment. Obtain the latest version of the "Government of Canada Workplace 2.0 Fit-Up Standards" from the PWGSC Project Manager.

Note that the breakdown of the cost estimate at each stage of delivery should reflect the funding accountabilities for the components of an accommodation project as described in the "A3.3 Fit-Up Components and Funding Accountabilities" chart in the "Government of Canada Workplace 2.0 Fit-Up Standards", i.e. Base building cost vs. Fit-Up Standard cost vs. other cost.

1.22 Heritage Value

The Treasury Board Heritage Building Policy states "Departments must manage buildings they administer so as to conserve their heritage character throughout their life cycles." Any modification considered to a Government of Canada building or site should value its architectural character, no matter how old or how new the building or site may be.

For a federal (Government of Canada) building that is designated as classified or recognized by the Federal Heritage Building Review Office (FHBRO), implement the project following a conservation approach based on accepted principles and practices as described in the "Standards and Guidelines for the Conservation of Historic Places in Canada."

1.23 Barrier Free Design for Disabled

Design buildings and grounds to make them accessible and usable by disabled persons, unless otherwise required in the Project Brief. Conform to CAN/CSA-B651-04(R2010), including making buildings and other facilities accessible to persons with a range of physical, sensory and cognitive disabilities. Adhere to specific client requirements as directed, and Correctional Service Canada (CSC) policy on accessibility for CSC projects.

Also conform to Treasury Board of Canada Secretariat Accessibility Standard for Real Property, web link: <http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=12044§ion=text>

1.24 Minimum Codes and Standards

The most stringent requirements of the following codes and standards shall apply:

National Building Code of Canada.
National Fire Code of Canada.
National Plumbing Code of Canada.
Canada Labour Code Part II (Occupational Safety and Health).
Fire Commissioner of Canada Standards.
Federal Boiler Emission Regulations.
Federal Environment Code of Practices.
PWGSC Federal Office Building Standards.
Treasury Board of Canada Secretariat Standards and Directives.
Canadian Electrical Code.
Canadian Standards Association Specifications, Standards and Guidelines.
ANSI, ASHRAE, ASTM, AWMAC, FM, MPI, TSSA, ULC etc. Standards, Guidelines and Handbooks.
Model National Energy Code of Canada for Buildings.
Provincial Codes, Municipal Codes/By-Laws and Utility Authority Codes.

Additional codes and standards are detailed in the sections for specific disciplines.

1.25 Operating Costs

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 materials and equipment, requiring the minimum of operating personnel, and building finishes for easy maintenance, etc..

SECTION 2 ARCHITECTURAL DESIGN

2.1 Review

All designs must be reviewed by the Department and conform to the requirements of the Project Brief.

2.2 Principles

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 co-ordinated, and consistent in adherence to good design principles.

2.3 Economy

Design strictly within the budget and in accordance with sound investment economics and operating and maintenance expenditures.

Design for the optimum ratio of net usable space to outside gross areas.

2.4 Flexibility

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

2.5 Future Extension

Design for future extension as determined by the Departmental Representative and ensure that permanent spaces, such as service rooms and duct spaces, etc., are sized for future additional capacity.

2.6 Quality

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

2.7 Regulations

Design shall comply with applicable Federal, Provincial and Municipal regulations and codes. In case of conflict, the most stringent requirements apply.

2.8 Design

The Department expects imaginative design and good aesthetic expression throughout all projects. Design shall be compatible with adjacent buildings, or with the existing building in extension work.

2.9 Required Space

Provide all rooms required to within 10% of the approved areas. Deviation from this requirement may entail redesign.

2.10 Ancillary Space

Provide washrooms, janitor's rooms, furnace rooms, electrical panel and transformer rooms, storage rooms, freight and garbage holding areas, duct spaces and other building service space not specifically listed in the Project Brief, but essential to the efficient operation of the building.

2.11 Fit-up Standards

In accordance with Section 1.

2.12 Heritage Value

In accordance with Section 1.

2.13 Barrier Free Design for Disabled

In accordance with Section 1.

2.14 Colour Schemes

All colour schemes require PWGSC approval. Submit schemes in duplicate well in advance and so as not to delay the work of the Contractor. Colour schemes should include all surfaces and materials to be coloured on site, plus any items provided with a colour finish or texture during prefabrication. Indicate any untreated or natural-finish surfaces contributing to the overall aesthetic appearance of the project. To fully illustrate the scheme, provide PWGSC with actual samples (colour chips, material samples, etc..) of interior finishes that are to be installed. Revise the scheme if necessary to obtain final PWGSC approval. Ensure that the Contractor carries out the approved scheme. One copy of the approved scheme will be retained by PWGSC for verification of the final results on site.

2.15 Codes and Standards

In accordance with Section 1.

SECTION 3 LANDSCAPING AND SITE DEVELOPMENT

3.1 General Design

The general design of the site and the landscaping layout is subject to the overall design requirements covered in the Project Brief.

Although the Department does not require elaborate and costly landscape layouts, the visual appearance of the external environment is considered of functional importance, forming a logical continuation of the building design. Relate all elements to each other, to human scale and to their general surroundings.

Include with concept submission a realistic representation of the proposed site lay-out. Provide cross-sections to indicate the 3-dimensional relationship.

3.2 Existing Features

Preserve existing site features and integrate them with the new site design. This pertains not only to the use of existing trees, shrubs, rock and water, but also includes those elements, vistas, other buildings, outside the property lines which may have influence on the total space composition.

Insure preservation of all useful topsoil and the protection of all areas, grades, watercourses, etc. which should not be interfered with during construction operations.

The use of existing trees must depend on their health, life expectancy and risk of damage during construction. Their root systems, and the immediate grade above, should remain undisturbed. If changes of grade are required close to a tree, provide the proper measures for its continued health.

Obtain copy of "Tree and Shrub Preservation" Section 32 01 90.33 from the NMS Specification System and use as part of project specification.

3.3 Site Layout

Design the site layout simultaneously with that of the building(s) to ensure optimum compatibility. Take into account all services, and areas scheduled for future building expansion, etc.

Use hard and soft landscaping to create desirable space organization, open and close areas, privacy, enclosure, exposure or emphasis of certain site aspects, views, etc. Co-ordinate the character and massing of grading, trees, shrubs, site structures, etc. with that of the building(s) and adjacent property.

Employ water efficient landscaping, maximize open space to reduce heat island effect in keeping with sustainable site guidelines. Take into account climatic factors, orientation, prevailing winds, snow drifting and the microclimate.

Control soil erosion, airborne dust generation and waterway sedimentation during construction activities.

Provide proper access and clearance to suit FCC and local fire regulations.

Face main entrances and main walkways towards the sun (south) to maximize ice-free conditions. This also applies to entrance canopies, balconies, and barrier-free parking.

3.4 Maintenance

Design to assure easy economical maintenance to suit an equipment-oriented maintenance program.

Arrange grading to ensure fast drainage, but avoid steep slopes. If these are inevitable, use a ground cover that reduces maintenance to a minimum. Avoid deep ditches with steep sides.

Where possible arrange planting, screening, berms, etc. to inhibit snow drifting that may occur across walkways, roads and parking areas.

In regions subject to heavy snowfall arrange roads and parking areas to allow maneuvering of fast moving snow plows. Provide storage space for snow beside parking lots.

Allow sufficient room for tractor power mowers, snow removers, etc. to maneuver. Keep grass areas large and simple with no awkward inaccessible corners.

Consider the use of mowing strips adjacent to all buildings, fences, etc. These are paved strips 380 mm wide to accommodate power mower wheels.

Provide adequate watering facilities. Generally hose bibbs, strategically placed, are sufficient for Federal projects. Underground sprinkler systems may only be used where justified by the complexity of the design, importance of the project, drought possibilities, etc. and as approved by the Departmental Representative.

Provide adequate on-site, under-cover storage facilities for maintenance equipment.

3.5 Circulation

Design the site circulation to provide for:

- .1 Pedestrian movement, including the disabled. (wheelchair, walker, scooter. Long white cane, etc.)
- .2 Automobile movement, unloading and parking, convenient highway access.
- .3 Service vehicles, convenient highway access, loading, unloading, turning and short term parking.
- .4 Bicycle parking.
- .5 Public transportation, drop-off and loading zones, when required.

Provide sufficient pedestrian areas to accommodate all traffic during peak circulation periods.

Keep the road system for vehicles to a minimum and avoid unnecessary paving of large areas. Provide visitors parking and barrier-free parking near main entrances, with convenient drop-off zones. Public transportation loading zones should preferably be close to building entrances. Bus traffic, when planned for on the site, should not interfere with peak traffic flow from parking areas.

3.6 Walkways

Walkways, including pedestrian ramps, shall be of non-slip concrete or asphalt, minimum 1500 mm wide; 1800 mm wide where mechanical snow removal equipment is to be used.

At least one walkway should give adequate access for disabled persons to each building. Basically this means that a wheelchair, power wheelchair, scooter, or a person who uses crutches, a walker, a long white cane or a guide dog can travel easily from the street or parking lot right into the building without having to negotiate raised curbs, steps or steep gradients, etc. Conform to CAN/CSA-B651-04(R2010), Accessible Design for the Built Environment.

Provide ample hard surfacing at building entrances. Consider the use of alternative surfacing such as hard-baked bricks, asphalt, paving blocks, concrete slabs with coloured or textured finishes. Surfaces shall stand up to snow removal operations and de-icing agents.

3.7 Parking

Conform to local zoning ordinances.

Provide adequate parking for staff, visitors and service vehicles, and as required in the Project Brief.

Locate parking areas where they will not detract from the aesthetics of the building and landscaping, but will still be easily accessible and functional. Limit the walking distance to building entrances to 150 m. Up to 250 m may be approved in extreme circumstances. City of Toronto Accessibility Design Guidelines article 1.2.5 Parking, Policy, "Designated accessible parking space(s), whether external or internal, should be provided within 30 m of the main accessible entrance and/or any other accessible entrances." Check local bylaws for the municipality where the project is located.

Avoid large single parking lots. Use landscaped islands, screen planting and trees, providing they do not interfere with driver's vision or with snow removal and storage. Locate walks clear of the overhang of cars parked up to curbs. Use hard surfacing under such overhangs. Provide preferred parking for vanpools and carpools. Provide service areas large enough to maneuver trucks without excessive pavement. Minimize the need for backing-up.

At major bus stops with frequent stops and starts, consider concrete paving the bus stop if the street has asphalt paving.

3.8 Snow Clearing

Design for ease of snow removal. Incorporate adequate snow storage areas, clear of low planting and graded for good run-off. Avoid the use of unnecessary curbs where snowfall is heavy, limit parking lots to 175 cars or less, and not more than 60 m in length, with storage areas at one end and/or on grass covered islands. Where snow storage space is limited, design lots slightly oversize to allow for temporary snow storage. Artificial mounds should not aggravate snow drifting problems, particularly across walks or paved areas.

3.9 Grading and Drainage

Design finished grades to provide positive drainage of all lawns and paved areas, with a minimum of 2% for lawn areas. Allow no drainage of surface water onto neighbouring property unless approved by the Departmental Representative.

Use stormwater design principles for quality and quantity control of stormwater run off and ensure accepted pre-development peak discharges are not exceeded while promoting infiltration.

Treat unpaved slopes steeper than 3:1 (33%) with ground cover, riprap or use retaining walls. Grass is not recommended.

Consider the design value of grading to enhance visual effects and to achieve economy in the use of on-site material, although this may not be the prime consideration. Avoid the need to move large volumes of soil.

On-site material may be used to create visual barriers or mounds, acting as screens for the deflection of wind and noise, and for the guiding of traffic in desired directions. Use mounds only if the site is large enough to permit long naturally blending slopes. Round off the tops and bottoms of all slopes to avoid sharp transitions.

Design for fast drainage of areas where snow will be stockpiled. Direct the drainage towards gutters to minimize the effect of de-icing agents on lawns. Allow no drainage over sidewalks.

Locate ditches, swales and flumes where they will not detract from the visual effect of the site. Where their use or depths would be excessive, provide catchbasins. Design ditches to handle maximum run-off, but make them as shallow as possible for ease of maintenance.

Provide against possible ice blocking of drain/catch basin by having two drains not too far apart, thereby mitigating ponding of water on driveways and parking lots.

3.10 Retaining Walls

Maintain a realistic cost relationship between foundation and above-ground construction of low retaining walls and walls for planters. Consider alternatives such as dry stone walls, concrete cribbing, flat foundation on gravel filled trench. Riprap may be used if compatible with the project.

3.11 Miscellaneous Site Features

Design miscellaneous site features to complement the overall site treatment and relate their design and use of material to the main building(s). Common items are as follows:

Site structures: Co-ordinate the design, location and elevation of all supporting site structures such as transformers, kiosks, gas valves, storage bins for sand, de-icing agents, etc., to ensure compatibility with all project features. Large projects may require storage space for maintenance equipment and covered lunchroom facilities for personnel.

Planters: These may be included on large paved areas near entrances and in courtyards. Where they form part of a permanent structure, specify sufficient insulation to reduce frost penetration from the sides. Provide for a 150 mm layer of clean gravel and drainage holes. Locate holes to avoid straining walls or pavement and specify a geotextile to separate gravel and topsoil.

Fencing and walls: Co-ordinate the design of perimeter fencing, walls, site screens, decorative walls, etc., with the general landscaping treatment.

For ease of grass cutting, avoid use of retaining walls. Consider "sloping green carpet".

Furniture: Cater for public and/or personnel use of the site by provision of seating facilities, litter bins, drinking fountains, etc., as anticipated.

Car heater outlets: These should be inconspicuous and solidly supported. Their location shall not interfere with parking and snow removal. Use only when special permission for their use has been granted.

Signs: Base traffic signs on the "FIP - Federal Identity Program Manual" and the "Canadian Uniform Sign Manual" available from "Roads and Transportation Association of Canada", 875 Carling Avenue, Ottawa, Ontario. Conform to sign requirements for disabled persons. All signs shall be bilingual, simple, easy to read, consistent in mounting heights and not used unnecessarily.

Outdoor lighting: Provide outdoor lighting at strategic points, near entrance steps, walkways, loading ways, parking areas, and at those locations where regular evening traffic can be expected. Refer to the Project Directive for any special requirements for floodlighting, emergency and security lighting, etc. that may be required. Employ light pollution reduction strategies and apply zone specific classifications to determine site lighting criteria for safe light levels.

Flagpoles: Locate in prominent positions clearly visible to the public and generally related to the main entrance - at grade or attached to the face of the building directly above or near the main entrance, preferably inclined at approximately 45° from the wall face or where this is not possible, vertical to the wall face. Flagpoles must be easily accessible to permit operation under all weather conditions, and may require either paved approaches and steps if at grade level, or simple window or wall opening access if mounted on the building and not directly accessible from grade.

Select flagpole size from the following list, as appropriate:

Flagpole	Flagpole Length	Flag Size (NIC)
Free Standing	5 m to 7.750 m	914 mm x 1829 mm
Flagpole	9 m to 10.750 m	1143 mm x 2286 mm
Wall mounted	12.250 m to 13.750 m	1372 mm x 2793 mm
(Vertical)	15.250 m to 16.750 m	1600 mm x 3200 mm
Wall mounted	2.500 m to 3.750 m	914 mm x 1829 mm
(Outrigger, non braced)	4.500 m	1143 mm x 2286 mm

Flags shall not be included in construction contract (NIC).

Use only standard aluminum manufactured products complete with standard non-fouling hardware for ease of operation. Ensure that all flagpoles are properly protected against lightning. Illumination of flags: Not required on non-designated buildings. Designation shall be given by the Under Secretary of State, through Departmental Representative.

Special Features: Any special design features such as fountains, pools, elaborate courtyards, etc., require justification in terms of the project size, importance, prestige value, location and use, etc. and must be approved by the Departmental Representative.

3.12 Fine Artwork

Where fine artwork is planned for the building exterior or to be free-standing on the site, its location and surroundings must be properly and continuously co-ordinated by the Consultant with the Artist. The

location of the artwork and the nature of its surroundings, approaches, viewpoints, etc., must achieve the optimum artistic effect. As a general rule, keep the artwork's surroundings simple and inconspicuous.

3.13 Topsoil, Lawns and Planting

Refer to appropriate sections of the PWGSC Ontario Region amended National Master Specification and PWGSC In House Specification Sections 31 23 10, 31 23 11, 31 23 12 and 32 90 00. Copies are available upon request.

Existing site topsoil shall be re-used.

Plant material must be from areas with similar climatic conditions to the site, unless otherwise permitted in writing by the Departmental Representative. Planting plans should incorporate plant types best suited to the site, and most likely to transplant successfully and to give vigorous growth within the second year following transplant. The use of container stock is encouraged.

Avoid using trees for foundation planting, especially trees with long fibrous roots.

3.14 Instant Landscaping

This is preferred, and means basically the special use of plant material to achieve an immediate landscaped effect as follows:

By planting trees and shrubs sufficiently large to guarantee quick establishment and vigorous growth. Do not, however, specify trees of such sizes that cost becomes prohibitive and survival doubtful.

By mass-planting of limited varieties.

By close spacing plant, etc. which can be thinned out later.

By planting fast growing trees in combination with slower growing, more permanent varieties. The faster growing trees may be thinned out or removed in later years when the permanent planting is large enough.

Reduce potable water consumption for landscape irrigation by adopting sustainable site principles such as recycled rainwater, and plant species factor.

SECTION 4 SPECIFICATION BRIEF

4.1 Purpose of Section

The purpose of this document is to state specification policy and to provide a framework, format and reference information to assist the specifier in developing the project specifications. It gives additional detail to the information in the NPMS Specification Brief.

4.2 Definition

A specification is a written instruction describing type and quality of materials, products, equipment and fixtures; quality of workmanship; methods of fabrication, installation and erection; standards, test and code requirements; and specific sizes of materials. By contrast, the construction drawings present quantities of work and materials, dimensions, locations, form and building details, and show the scope of work.

4.3 Legal Status

Specifications are part of the legal contract between the Contractor and the Owner. They provide the basis for accepting or rejecting workmanship or products on site.

4.4 Division 00 - General Instructions to Bidders, General Conditions, Etc.

Read and understand the applicable General Instructions to Bidders, General Conditions and other related Division 00 contract documents listed in 4.14.

The SACC Manual references for Division 00 are available on the internet at:
<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/5/R> or
<http://ccua-sacc.tpsgc-pwgsc.gc.ca/pub/rese-eng.jsp>

Construction Contract Administration Forms are available at:
http://publiservice-app.tpsgc-pwgsc.gc.ca/forms/text/search_for_forms-e.html
for federal government employees; and

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

See the document entitled "Construction Contract Administration Forms Real Property Contracting".

4.5 National Master Specification

The National Master Specification (NMS) is a bilingual (English and French) database of master construction specification sections which is owned and managed by PWGSC. It was created in 1975 as a joint effort between several Government of Canada departments and Construction Specifications Canada. The text consists of wording likely to be required for a wide range of construction and/or renovation projects.

In preparing project specifications, the Consultant shall use the latest release of the NMS amended by PWGSC Ontario Region to the maximum extent to which it is applicable, as per PWGSC RPB Real Property Branch Policy on the Use of the National Master Specification NMS 2012 formerly Departmental Policy 039/2001-05-01, TB Minute 732202, subject to the Consultant's overriding responsibility for the final content of the project specification. Use PWGSC Ontario Region amended NMS sections and PWGSC Ontario Region Master Specifications: Architectural, Structural, Mechanical and Civil Minor Works and In-House specification masters available by copying down from the ftp site. The Consultant shall edit, assign new section numbers, amend, and supplement the PWGSC Ontario Region Amended NMS as the Consultant deems necessary to produce an appropriate project specification free from conflict and ambiguity, i.e. new sections not presently included in the NMS database. The Consultant shall be responsible for the cost of processing the project specifications in NMS Professional Specification Editing Software or MS Word 2010 using the Consultant's own or sub-contracted typing/word processing facilities.

The Consultant shall be responsible for all proofreading. Both the NMS and PWGSC Ontario Region Master Specifications follow CSC/CSI MasterFormat 2012 numbering. As of January 2005, the NMS renumbered the entire database in line with MasterFormat 2004 and now MasterFormat 2012 which uses 6, 8 and 10 digit section numbers instead of the previous 5 digit numbers, consisting of two numbers, a hard or connecting space, two more numbers, a hard or connecting space and two more numbers (for example, 01 11 00 instead of 01110). MasterFormat 2012, 2011, 2010 and 2004 divides the work into 50 divisions instead of the previous 16 divisions. In March 2007 the NMS began including 8 digit section numbers, consisting of two numbers, a hard or connecting space, two more numbers, a hard or connecting space, two more numbers, a period and two more numbers (for example, 01 11 00.01).

The Consultant is responsible for obtaining from any authorized supplier, the NMS User's Guide, and an updated version of the NMS specification sections that the Consultant requires in preparing the project specification. Use of the NMS system shall not relieve the Consultant of the responsibility for conforming to the approved time schedule.

4.6 Regional Guide Specifications

The Centre of Expertise, in some regions, maintains abridged versions of some NMS specifications and a number of other short form guide specifications for materials and equipment not covered by the NMS. These are available from the regional Specifications Offices.

The Consultant shall obtain the region's amended version of Division 01, which also includes requirements peculiar to the Region. The Consultant shall ensure that the Regional requirements of Division 01 sections appropriate to the project are incorporated into the appropriate NMS Division 01 sections. The PWGSC amended Division 01 sections on the ftp site already contain these revisions. Other regional abridged and short form specifications may be used at the Consultant's or the department's option. These are available on the ftp site.

As in the case with the NMS, the Consultant shall be entirely responsible for project specification accuracy, applicability of content, completeness, and correctness, whether or not prepared using the abridged or short form guide specifications referred to herein. This includes using reference standards designations,

dates, titles and technical content current as of the date of bidding. Consult the various standards writing organizations web sites.

4.7 Specification Organization

Section Titles, Numbers and Format: Since its inception, the NMS structure has been and continues to be based on the "MasterFormat 2012" Master List of Section Titles and Numbers and SectionFormat 2008 which are jointly produced by the Construction Specifications Institution of the United States and Construction Specifications Canada. The 2012 NMS is currently based on MasterFormat 2012.(50 Divisions, 6 and 8 digit Section Numbers).

Type of Section: Narrowscope sections describing single units of work are preferred for more complex work; Broadscope sections may be more suitable for less complex work.

Format: Use the NMS wide page or 1/3 - 2/3 format consistently throughout the specification.

4.8 Specifying Materials

The practice of specifying actual brand names, trade names, model numbers, etc., is against departmental policy except for very special circumstances. Some NMS sections incorporate trade names. For PWGSC delete the trade names from the NMS. The method of specifying materials and the use of trade names shall be as stated hereunder, and in the following order of preference:

- Specify by using recognized standards such as those produced by CGA, CGSB, CSA, and ULC, or by trade associations such as AWI/AWMAC/WI, CRCA, MPI and TTMAC. Use Canadian standards wherever possible.
- Where CGSB Qualified Product Lists are available that identify materials that meet requirements of relevant CGSB Standards, specify to restrict supply of materials to those on such lists.
- Current lists are available from: Canadian General Standards Board Sales Centre,
 - OTTAWA, Ontario K1A 1G6
 - Telephone: (613) 941-8703
 - Fax: (613) 941-8705
- Where no standards exist, specify by a non-restrictive, non-trade name "prescription" specification or by a "required performance" specification.
- Where no standards exist and where a suitable non-restrictive, non-trade name "prescription" specification or a "required performance" specification cannot be developed, specify by trade name. Include all trade names available under WTO, NAFTA and other trade agreements, of materials acceptable for the purpose intended, and in the case of equipment, identify by model number. The name, telephone number and web site of the manufacturer and distributor must also be included.
- Obtain written approval from the Departmental Representative's designated PWGSC Project Manager before: adding or deleting from list of trade names specified in NMS sections or PWGSC master specifications; specifying trade names in lieu of "prescription" or "performance" method used in NMS sections; or specifying trade names when writing "custom" (not NMS) sections.

Additionally, use trade names:

- Where only one specific material will fulfill the exact requirements of the project.
- Where specific materials are required to match existing materials.
- On projects of a special nature due to an unusual function or timing requirement such as emergency repairs.

List all trade names of materials acceptable for the purpose and make reference to the Instructions to Bidders for the method of approving alternative materials. Where trade names are specified in an

'Acceptable material' sub-paragraph following the complete generic performance criteria specification, list all available WTO, NAFTA and other trade agreements (not just Canadian) manufacturer's, their model numbers, the distributors and the complete telephone numbers including area code, fax number and website.

The Consultant shall read and apply the trade agreement clauses applicable to the project which are listed in the NAFTA article 1007 Technical Specifications, the WTO article VI Technical Specifications, and in the Agreement on Internal Trade Chapter 4 - General Rules Article 401: Reciprocal Non-Discrimination.

On certain projects, trade names or manufacturers' numbers may be included in the Hardware Section, as specifically instructed in writing by the RCMP Security Engineering Branch or Correctional Service Canada. Use the following format as a sub paragraph following the performance criteria paragraphs. Set up trade name acceptable material specifications as follows:

Acceptable Material:

1. ABC Co. Model [____], manufactured by 123 Inc. 416-555-1234 fax 416-555-2234 www.123.com, distributed by 456 Inc 416-555-5678 fax 416-555-5566 www.456.com.
2. DEF Co. Model [____], manufactured by 123 Inc. 416-555-1234 fax 416-555-2234 www.123.com, distributed by 456 Inc 416-555-5678 fax 416-555-5566 www.456.com.
3. GHI Co. Model [____], manufactured by 123 Inc. 416-555-1234 fax 416-555-2234 www.123.com, distributed by 456 Inc 416-555-5678 fax 416-555-5566 www.456.com.
4. Alternative Materials: Approved by amendment in accordance with Instructions to Bidders. (Or instead of this wording with each list of trade names, include the following in Part 1 of Specification Sections in which trade names appear "Acceptable Materials: Where materials are specified by trade name refer to the General Instructions to Bidders for procedure to be followed in applying for approval; SACC Manual Clause ID R2410T for G14 Approval of Alternative Materials, or, SACC Manual Clause ID R2710T for G16 Approval of Alternative Materials.")

The reference to the General Instructions to Bidders in the above examples is necessary to remove any suggestion of partiality and to ensure that all suppliers are aware of the provision for alternative proposals during the tendering period. Do not use such phrases as "or equal", "similar to", "equivalent to", "to match" to provide for alternative materials. Use language identified in the NMS User's Guide.

Identify material as in product literature. Specific types and model numbers are required.

Do not use variations on above methods of specifying by trade name. One example is use of the phrase "Acceptable Manufacturers".

While this establishes the names of manufacturers who are acceptable it does not ensure that the actual material involved will be acceptable. Moreover, it does not allow for competition because there is no tie-in with the Instructions to Bidders which deal only with alternative "materials".

4.9 Standards

The following is a partial list of internet websites that may be used to check for the most current publications of standards that might be referenced in the construction specification document.

AA: www.aluminum.org
AAMA: www.aamanet.org
AMCA: www.amca.org
ANSI: www.ansi.org

API: www.techstreet.com/info/api.html#hist
ARI: www.ari.org
ASHRAE: www.ashrae.org
ASME: www.asme.org
ASTM: www.astm.org
AWMAC: www.awmac.com
BIFMA: www.bifma.com
CGA: www.cga.ca
CGSB: www.pwgsc.gc.ca/cgsb/home/estore-e.html
CRCA: www.roofingcanada.com
CSA: www.csa.ca
CSDMA: www.csdma.org
EIA: www.eia.org
IEEE: www.ieee.ca
ISA: www.isa.org
ISO: www.iso.ch
OPSS and OPSD: <http://www.raqsa.mto.gov.on.ca/techpubs/ops.nsf/OPSHomepage>
MIA: www.marble-institute.com
MPI: www.specifypaint.com
NAAMM: www.naamm.org
NEMA: www.nema.org/
NFPA: www.nfpa.org/catalog/catalog_home.asp?cookie%5Ftest=1
NLGA: www.nlga.org
NSSN: www.nssnorg
SAE: www.sae.org
SCC: www.scc.ca/indexe.html
SMACNA: www.smacna.org
SSPC: www.sspc.org
TIA: www.tiaonline.org
TTMAC: www.ttmac.com
ULC: www.ulc.ca/standards
UL: www.ul.com

General reference of standards: www.cssinfo.com/search.html and www.techstreet.com

For metal manufacturers: www.retailsource.com/index.html

For other website addresses of industry trade and manufacturer associations, use internet advanced searches.

Standards within NMS sections are not always the most current. The responsibility to ensure that the latest standards current as of the date of bidding are used remains the responsibility of the consultant; include current standard designation, date, title and technical content.

The NMS Secretariat can also be reached on the web at www.nms-ddn.ca

4.10 Canadian Materials

Specify Canadian materials to the fullest extent procurable, consistent with proper economy and the expeditious carrying out of the work. Consider km from raw material source and fabricated product source

to project. Coordinate with latest LEED and Green Globes requirements, the PWGSC Green Policy and any client's green policy.

4.11 Cash Allowances

Construction contract documents should be complete and contain all of the requirements for contractual work. Cash allowances are to be used only under exceptional circumstances (i.e. utility companies) where no other method of specifying is appropriate. Obtain the Departmental Representative's designated PWGSC Project Manager's approval to use cash allowances. Use Section 01 21 00 Allowances (formerly section 01210 in MasterFormat 1995) of the NMS to specify cash allowances.

Refer to Section 6 Risk Management and Sections 11 and 12 Cost Planning and Control.

4.12 Extended Warranties

It is the policy of PWGSC's Real Property Contracting Directorate (RPCD) to avoid extending warranties more than 24 months. Where it is necessary to extend the twelve 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 "Warranty":

- "For the work of this Section [] the 12 months warranty period prescribed in General Conditions GC3.13 Warranty and Rectification of Defects in Work 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 [insulating glass units] the 12 month ... [] months."

Parts of the work for which extended warranties may be required are those, such as roofing and waterproofing, in which, based on past performance, defects are likely to appear after the twelve month warranty period provided for in the General Conditions.

4.13 Terminology

Use the term "Departmental Representative" instead of PWGSC, Engineer, Owner, Consultant or Architect. Departmental Representative means the officer or employee of Her Majesty who is designated pursuant to the Bid and Acceptance Form and includes a person specially authorized by the Departmental Representative to perform, on the Departmental Representative's behalf, any of the Departmental Representative's functions under the contract and is so designated in writing to the Contractor. Wherever options: [Engineer], [Architect], [Consultant], [Owner], [Design Builder], [Departmental Representative] appears in NMS Sections, select the words "Departmental Representative". Use metric units.

The terminology used shall be consistent throughout the drawings and specifications.

4.14 Specification Documentation

Front and Back Cover: by Department.

Amendments (if required): by Consultant. Department to provide format, and to sign and distribute.

Special amendments: by Department, copies of the current special amendments are available from the regional Specifications Section.

Instructions to Bidders: by Department.

Bid and Acceptance Form: by Department.

Standard Construction Contract Documents for Major Works: by Department, consisting of:

General Instructions to Bidders, SACC Manual Clause ID R2710T
Bid and Acceptance Form,
GC1 General Provisions, SACC Manual Clause ID R2810D
GC2 Administration of the Contract, SACC Manual Clause ID R2820D
GC3 Execution and Control of the Work, SACC Manual Clause ID R2830D
GC4 Protective Measures, SACC Manual Clause ID R2840D
GC5 Terms of Payment, SACC Manual Clause ID R2850D
GC6 Delays and Changes in the Work, SACC Manual Clause ID R2860D
GC7 Default, Suspension or Termination of the Contract, SACC Manual Clause ID R2870D
GC8 Dispute Resolution – Arbitration (Generally for Contracts between \$100,000 and \$5,000,000), SACC Manual Clause ID R2880D
GC8 Dispute Resolution – Mediation (Generally for Contracts greater than \$5,000,000), SACC Manual Clause ID R2882D
GC9 Contract Security, SACC Manual Clause ID R2890D
GC10 Insurance, SACC Manual Clause ID R2900D
Insurance Terms, SACC Manual Clause ID R2910D
Fair Wages and Hours of Labour - Labour Conditions, SACC Manual Clause ID R2940D (formerly R0203D Labour Conditions "D")

Allowable Costs for Contract Changes Under GC6.4.1, SACC Manual Clause ID R2950D
and for Minor Works: by Department, consisting of:

General Instructions to Bidders under \$100,000, SACC Manual Clause ID R2410T
Bid and Acceptance Form,
GC1 General Provisions, SACC Manual Clause ID R2810D
GC2 Administration of the Contract, SACC Manual Clause ID R2820D
GC3 Execution and Control of the Work, SACC Manual Clause ID R2830D
GC4 Protective Measures, SACC Manual Clause ID R2840D
GC5 Terms of Payment under \$100,000, SACC Manual Clause ID R2550D
GC6 Delays and Changes in the Work, SACC Manual Clause ID R2860D
GC7 Default, Suspension or Termination of the Contract, SACC Manual Clause ID R2870D
GC8 Dispute Resolution (Generally for Contracts under \$100,000), SACC Manual Clause ID R2884D
GC9 Insurance under \$100,000, SACC Manual Clause ID R2590D
Fair Wages and Hours of Labour - Labour Conditions SACC Manual Clause ID R2940D (formerly R0203D Labour Conditions "D")
Allowable Costs for Contract Changes Under GC6.4.1, SACC Manual Clause ID R2950D

The SACC Manual references for Division 00 are available on the internet at <http://ccua-sacc.tpsgc-pwgsc.gc.ca/pub/rqqr.do?lang+eng&sec0=5&sec1=R>

Documents listed are incorporated by reference only. The SACC Manual references for Division 00 are available on the internet as specified in clause 4.4.

New Terms:

- The term "Canada" shall henceforth be used in place of "Her Majesty", "Minister" and "Engineer".
- The term "Departmental Representative" is defined as the person exercising the roles and attributes of Canada under the contract and replaces the term "Engineer".
- The term "Certificate of Substantial Performance" replaces the term "Interim Certificate of Completion".
- The term "Certificate of Completion" replaces "Final Certificate of Completion".

List of Contents, Index of Specification and Divisions 01 to 50 (MasterFormat 2012) (formerly 01 to 16 under MasterFormat 95) and Drawings: by Consultant based on attached examples.

4.15 Typing Format

Refer to the NMS for approved wide page and 1/3-2/3 page format and numbering method. Use consistent format throughout the project specification. Print on 216 mm x 280 mm (8-1/2" x 11") white bond paper, 11 or 12 point TT Courier New font. Do not use smaller fonts as they are not legible.

Every page shall have the Project Number, the Section title, the six digit Section number, the page number and the project date. Obtain sample from the specification reviewer before proceeding with specifications. The header and/or footer shall not show the consultant's name and address, the project title or the project street address.

The Consultant shall hand over specifications in both hard paper copy and soft electronic copy compatible with **NMSEdit Professional version 3.00.01G** or **MS Word 2010** and **PDF** on CD/DVD/USB/ftp of the project specifications, title page, amendments, etc. Verify the software version currently in use at PWGSC on award of consulting contract. Submit small drawings, i.e. abbreviations, room, colour, door and hardware schedules, notes, unit price tables when applicable, etc. in MS Excel/MS Word or Lotus 123 as per PWGSC Ontario Region electronic masters.

4.16 FTP File Transfer Protocol

PWGSC Ontario Region master specifications and PWGSC Ontario Region amended NMS sections are available to copy to your computer from our ftp site at <ftp://ftp.pwgsc.gc.ca/> Navigate through folders:

- **rps/Specifications /Master Specifications/NMSEdit Professional Master Specs/** or
- **rps/Specifications /Master Specifications/RTF Master Specs** or
- **rps/Specifications /Master Specifications/PDF Master Specs.**

Copy contents of the NMSEdit Professional or RTF Master Specifications folder to your computer. These master specifications are to be used to create your project specification document.

4.17 Printing and Binding

The Department is responsible for printing and binding. Provide Department with one sided, camera ready paper original of specification. In NMS Professional with 11 point font, use binding margins 0.75 Left and 0.75 right and page width of 6.74. With 12 point font use binding margins 0.50 Left and 0.50 right. Ensure pdf files have the correct binding margins for two sided printing.

4.18 Bidding Information

Instructions to Bidders: Provide Department with a list of significant trades including costs. The Department will then determine which trades, if any, will be tendered through the Bid Depository.

Bid and Acceptance Form: Provide Department with a list of unit, separate, and alternative prices to be included.

Amendments: Provide Department with amendment in Departmental format in MS Word and pdf. The term Addenda was discontinued in June 2007. This terminology is currently under review.

4.19 PWGSC Ontario Region Master Specifications

One electronic copy of each applicable PWGSC section will be provided by PWGSC, Ontario Region, by ftp site. The PWGSC Ontario Region Master Specifications and Ontario Region amended NMS master specifications are available by copying/downloading from <ftp.pwgsc.gc.ca/rps/specifications>. These .spp specifications are only compatible with **NMSEdit Professional v3.00.01G** or later specification processing software and the **rtf** version for **MS Word** is somewhat compatible with other word processing software. Verify software version currently in use at PWGSC on award of consulting contract. Masters are also available in **pdf** on the ftp site.

PWGSC Ontario Region will supply small drawing masters, i.e., abbreviations, room, colour, door and hardware schedules, notes, etc. in Lotus 123 and MS Excel/Word.

Contact PWGSC Ontario Region, Senior Specification Officer, Cathy Ferren-Palmer at 416-512-5971 or by email at Cathy.Ferren-Palmer@pwgsc-tpsgc.gc.ca or Dan Covey at 416-512-5942 or by email at Dan.Covey@pwgsc-tpsgc.gc.ca. Files are stored in NMS Professional specification writing software, rtf, pdf, and are not available in any other word processing formats. You can save the specifications in other formats but you must submit your projects specifications to PWGSC Ontario Region in file formats compatible with NMS Professional as a *.spp file, rtf or MS Word doc/docx. You can download the PWGSC specification masters from the ftp site specified in 4.16 above.

4.20 Fixed/Stipulated Price Contract - Lump Sum Contract

Use the 'Bid and Acceptance Form - Lump Sum'. Delete all "Measurement for Payment", "Measurement Procedures" and "Payment Procedures" paragraphs from Heavy Civil Engineering sections of NMS, if such sections are used with other sections of NMS for Lump Sum Contracts.

4.21 Unit Price Contract

Use the 'Bid and Acceptance Form - Unit Price'. The majority of Heavy Civil engineering projects are tendered as Unit Price Contracts. To accommodate this, the Heavy Civil sections of the NMS include unit price measurements under Part one of each section in "Measurement Procedures".

The remaining sections of the NMS and PWGSC Ontario Region in-house masters are written for fixed price contracts and therefore do not include "Measurement Procedures" clauses. When combining both systems in a project, ensure only one method of payment is specified.

Unless otherwise instructed by the Departmental Representative's designated PWGSC Project Manager, contracts are written for heavy civil engineering are written on the Unit Price basis and Payment Procedures paragraphs apply. Add the Measurement Procedures paragraphs to the remaining sections when combining with Heavy Civil Engineering sections.

4.22 Combined Lump Sum and Unit Price Contract

Use the 'Bid and Acceptance Form - Combined Price' when a portion of the work involves unit prices. The unit price table should only be used for labour, tooling or materials when the quantity cannot be accurately determined prior to execution of the work. The unit price table is not to be used to obtain a cost breakdown for lump sum work.

4.23 Fire Protection Policies and Standards

Consult and comply with the Federal Fire Protection and Standards and Other Documents as published by Human Resources and Skills Development Canada. Documents can be found at:
http://www.hrsdc.gc.ca/eng/labour/fire_protection/policies_standards/index.shtml

4.24 Designated Substances

For existing buildings and all sites, include the Designated Substances Survey report results in Division 01. Edit the project site conditions list extensively in Section 01 35 29.06. Save the Designated Substances Survey as a separate pdf. If hardcopy is included in the project manual, bind into the specification as an appendix. This will satisfy the requirements of the Occupational Health and Safety Act and Regulations for Construction Projects, Revised Statutes of Ontario 1990, Chapter O.1 as amended, O. Reg. 213/91 as amended and O. Reg. 490/09, Designated Substances.

4.25 WHMIS

Comply with the requirements of the Workplace Hazardous Materials Information Systems (WHMIS) regarding use, handling, storage, and disposal of hazardous materials; and regarding labeling and the provision of material safety data sheets acceptable to Labour Canada.

4.26 PCB Disposal

Comply with Ontario Regulation 309. Use PWGSC amended NMS specification Section 02 84 00 Management of Toxic Waste.

4.27 Environmental Requirements

Comply with Federal and Provincial Acts, Codes, Regulations, Guidelines and Codes of Practice including but not limited to:

- CEPA - Canadian Environmental Protection Act 1988.
- Federal Halocarbon Regulations 2003 and EPAM.
- Guidelines for Emissions from Commercial/Industrial Boilers and Process Heaters; Code of Practice for the Reduction of CFC Emissions from Refrigeration and Air Conditioning Systems 1990; New Source Performance Standards for Stationary Combustion Turbines 1990; CEPA Guidelines for Storage Tanks Containing Petroleum Products 1992; CCME Code of Practice for UST Systems Containing Petroleum Products 1989.
- FA - Fisheries Act.
- TDGA - Transportation of Dangerous Goods Act.
- NWPA - Navigable Waters Protection Act.
- MBCA - Migratory Birds Convention Act.
- PCPA - Pest Control Products Act.
- IRIA - International River Improvements Act.

- ECOLOGO - Environment Canada, Environmental Choice Program, Guidelines and Certified Products Lists.

4.28 Waste Disposal

Comply with waste reduction plans, recycling, reuse, sale to reuse stores, etc. as specified in PWGSC Ontario Region masters. Co-ordinate section 01 11 01 with 02 42 92 in MasterFormat 2012 for minor works and sections 01 74 20 etc. in MasterFormat 2012 with 02 42 92, 02 42 93 and 02 41 Series and 02 42 Series sections in MasterFormat 2012 for major works.

Use deconstruction rather than demolition to the maximum extent possible. The goal is to divert 90 to 95% of deconstruction, demolition and construction waste from landfill. Carefully deconstructed items shall be reused, recycled, sold to reuse stores, factory refurbished, etc. in accordance with the waste reduction workplan.

Specify as many details as possible of the waste reduction workplan in the Contract Documents. Do not leave it up to the Contractor to decide. Where the destination of products is known, specify where the material is going with name, complete street address, phone number and email address. Refer to PWGSC Ontario Region Sections 02 41 19 and 02 42 92 Deconstruction of Structures for detailed deconstruction specs, and Section 02 42 93 Deconstruction and Waste Products Workplan Summary.

4.29 Door Hardware

Door hardware shall be specified and scheduled using the ANSI/BHMA numbers and symbols for type, grade, function, finish, etc. in accordance with PWGSC specifications, NMS specifications, and the Door and Hardware Institute - DHI "Sequence and Format for the Hardware Schedule, June 1984". Use the Lotus 123 or MS Excel/Word small drawing files listed above. Other formats WILL NOT be accepted. Project files must be compatible with our storage and retrieval systems such as DM/EDRM.

Do not use trade names and/or manufacturer's model numbers in the hardware specifications or schedules unless directed to do so IN WRITING by the Departmental Representative for specialty hardware items.

4.30 Epoxy Coatings

Use PWGSC Ontario Region Section 09 96 00 for all epoxy and urethane floor, wall and ceiling coatings.

4.31 Painting

Specify paints using the MPI - Master Painters Institute, Architectural Painting Specification Manual, latest edition plus amendments.

Lead paint: use PWGSC amended NMS Sections 02 83 10, 02 83 11, 02 83 12, 02 83 15 or 02 83 20.

Repainting of heavy civil structures/bridges, etc., use Section 09 97 17 with MOT and SSPC/NACE standards.

4.32 Sealants

Use PWGSC Section 07 90 00 Joint Sealing and Lotus 123 or MS Excel spreadsheet. Specify Environmental Choice Program, Ecologo sealants. Use SWRI validated sealants to the maximum extent possible.

4.33 Asbestos Abatement

Comply with Ontario Regulations 278/05 for asbestos abatement and Regulation 309 to transport, deliver and deposit asbestos waste. Use PWGSC amended NMS Sections 02 82 00.01, 02 82 01.02 and 02 82 00.03 as required.

4.34 Projects with a 33%, 66% and 100% Submission

33% Submission: submit hard copy to Departmental Representative for:

- List of Contents for all divisions and sections in this project.

66% Submission: submit hard copy and electronic copy to the Departmental Representative for:

- List of Contents for all divisions, Division 01 sections and a rough edit of specialty sections, such as, Asbestos Abatement, Guano Removal, Removal and Disposal of Underground Fuel Oil Tanks, Lead Paint Removal, Finish Hardware, Epoxy Flooring and Automatic Controls.
- One hard copy and one pdf of the Designated Substances Survey Report.
- One copy of draft Hardware Schedule, Door and Frame Schedule, and Door and Frame Types.
- One hard copy of window calculations from AAMA/WDMA/CSA-101/I.S.2/A440-08, North American Fenestration Standard/Specification for Windows, Doors and Unit Skylights and AAMA/WDMA/CSA-101/I.S.2/A440S1-09, Canadian Supplement to AAMA/WDMA/CSA-101/I.S.2/A440-08, North American Fenestration Standard/Specification for Windows, Doors and Unit Skylights - Figure A.1 Checklist for Selecting Performance Levels for Windows, Doors, and Unit Skylights, revised July 2009.

100% Submission: submit hard copy and electronic copy compatible with NMSEDT PROFESSIONAL or MS Word or rtf and in PDF format (one NMS Professional spp or MS Word doc/docx or rtf and one pdf for whole spec) to the Departmental Representative for:

- Final Specification Title Sheet, List of Contents and all specification sections.

4.35 Projects with a 50% and 100% Submission

50% Submission: submit hard copy to Departmental Representative for:

- List of Contents for all divisions and sections in this project, Division 01 sections and a rough edit of specialty sections, such as, Asbestos Abatement, Guano Removal, Removal and Disposal of Underground Fuel Oil Tanks, Lead Paint Removal, Finish Hardware, Epoxy Flooring and Automatic Controls. (one NMS Professional spp or MS Word doc/docx or rtf and one pdf for whole spec)
- One hard copy and one pdf of the Designated Substances Survey Report.
- One copy of draft Hardware Schedule, Door and Frame Schedule, and Door and Frame Types.
- One hard copy of window calculations from AAMA/WDMA/CSA-101/I.S.2/A440-08, North American Fenestration Standard/Specification for Windows, Doors and Unit Skylights and AAMA/WDMA/CSA-101/I.S.2/A440S1-09, Canadian Supplement to AAMA/WDMA/CSA-101/I.S.2/A440-05, North American Fenestration Standard/Specification for Windows, Doors and Unit Skylights - Figure A.1 Checklist for Selecting Performance Levels for Windows, Doors, and Unit Skylights, revised July 2009.

100% Submission: submit hard copy and electronic copy compatible with NMSEDT PROFESSIONAL or MS Word or rtf and in PDF format (one NMS Professional spp or MS Word doc/docx or rtf and one pdf for whole spec) to the Departmental Representative for:

- Final Specification Title Sheet, List of Contents and all specification sections.

4.36 As-Built and Record Specifications

Submit paper copy and electronic copy compatible with NMS EDIT PROFESSIONAL or MS Word or rtf and in PDF format to the Departmental Representative of as-built and record specifications. (one NMS Professional spp or MS Word doc/docx or rtf and one pdf for whole spec)

4.37 Specification List of Contents Example

SPECIFICATIONS: Note that NMS Edit Professional or MS Word macros creates the list of contents.

		.....NO. OF	
<u>DIVISION</u>	<u>SECTION</u>		<u>PAGES</u>

DIVISION 01 - GENERAL REQUIREMENTS

01 11 00	SUMMARY OF WORK.....	15
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DIVISION 02... **List all Sections and number of pages.**

DIVISION 03...

DIVISION 04...

DIVISION 05...

...continue to DIVISION 50 The List of Contents is generated automatically by NMS Professional or MS Word macros.

4.38 Quality Assurance/Quality Control and Non-Compliant Documents

Submissions of the project manual that do not comply with the RFP design and submission requirements including Appendix D - Doing Business Section 4 Specification Brief, and/or are not compliant to the current codes and standards may be subject to written complaints to the consultant's licensing and accreditation bodies such as the, OAA, AC(formerly RAIC), PEO, CIQS, AATO, OACETT, CSC - Construction Specifications Canada, consultant's liability insurance carrier, etc.

Consultants shall submit the names and qualifications of all specification writers in each discipline that have worked on the project, including the total number of hours each individual has charged to the project.

SECTION 5 MARINE

5.1 General

All design criteria shall be in accordance with the current edition of reference codes and standards.

For material properties (both physical and chemical), methods of fabrication, tests, etc. reference should be made to the latest editions of CSA the Canadian Standards Association Standards and CGSB the Canadian General Standards Board Specifications, give the standard number and date of the issue, etc.

5.2 Regulations

Design shall comply with applicable Federal, Provincial and Municipal regulations and codes. In case of conflict, the most stringent requirements apply.

5.3 Design for Marine Engineering

PWGSC Review: The design alternatives and costs shall first be reviewed by PWGSC who will involve other regulatory bodies in the review as required.

All Marine Engineering Designs must comply with current Federal and Provincial Acts, Codes, Regulations, Guidelines and Codes of Practice including but not limited to:

- National Building Code of Canada (NBC).
- Ontario Building Code (OBC) .
- Canadian Concrete, Steel, Wood, Aluminum, other relevant Codes and marine and dredging best practices.

The Consultant shall discuss design loads with Public Works and Government Services Canada Marine Engineers before formulating his proposals.

The Consultant shall submit marine proposals for consideration and review by Public Works and Government Services Canada. These proposals shall contain the following information:

- General description of the project.
- Design loads.
- Comparative cost analysis of alternative layouts.
- Recommended layout.

Prior to commencement of working drawings, the Consultant shall submit for consideration by Departmental Representative the following data:

- Design criteria for marine structures.
- Site access and dredging and dredge disposal alternatives.
- Other relevant information as necessary.

The Consultant shall include on the drawings:

- Design criteria and assumptions.
- Design live loads, including berthing and mooring loads for the structures.
- Foundation design bearing pressures..

5.4 Soils Investigation

A soils report and/or sediment sampling report will be prepared for PWGSC. PWGSC will require the marine consultant to establish what additional soil testing information is required immediately after approval of the concept design. The consultant shall arrange for final soils investigator acceptable to the Department.

5.5 Drawings

Drawings shall be produced in accordance with Section 1.

5.6 Specifications

Specifications in accordance with Section 4.

Comply with Section 4, Article 4.20 for lump sum contracts, Article 4.21 for unit price contracts, or Article 4.22 for combined lump sum and unit price contracts.

5.7 Testing and Inspection

A Departmental Representative may be appointed and paid by PWGSC to ensure that the work is performed in accordance with Plans and Specifications and to maintain records of the blow counts for each pile (if applicable).

A testing company will be engaged for testing materials material used in the works, including environmental testing, where necessary.

5.8 As-Built and Record Information

As-built information shall be submitted by the Contractor and shall contain drawings, specifications, shop drawings, submittals, samples, etc. As-built submittals shall be noted as such by the Contractor.

Record drawings and specifications are updated originals prepared by the Consultants based on the information supplied by the Contractor in the as-built.

Provide an Environmental Mitigation Record report for the project.

5.9 Work Measurement for Unit Price Contracts

Measure and record quantities of labour and materials involved, if work is based on unit prices, for verification of monthly progress claims and the Final Certificate of Measurement.

When a Contemplated Change Notice is to be issued based on Unit Prices, keep accurate account of the work. Record dimensions and quantities.

Record number of workers on site and hours worked daily.

5.10 Bid Documents Format:

Bid documents format shall be produced in accordance with Section 1.

SECTION 6 RISK MANAGEMENT

The Consultant will provide the necessary information required by the Departmental Representative to create and update the Risk Management Plan throughout the project.

6.1 Definitions

Procurement Plan:

Formal submission for approval to enter into a contract and composed of a (1) cost estimate of the requirement (including cash allowances, and design, estimating and inflation allowances), (2) a contingency and, (3) an anticipated amendment amount.

Allowances:

Additional resources included in an estimate to cover the cost of known but undefined requirements for an individual activity, work item, account or sub account: design allowance, estimating allowance, inflation allowance and other allowances specifically identified are part of a cost estimate

Cash Allowances:

A specific amount to be used for specific work item or service.

- Cash Allowance Construction: additional resources included in an estimate to cover the cost of known but undefined requirements whose probability of occurrence is high. This allowance is specifically identified in a cost estimate.
- Cash Allowance Consultant: additional services included in an estimate to cover the cost of known but undefined requirements whose probability of occurrence is high. This allowance is specifically identified in a cost estimate.

Risk Allowance:

Anticipated monetary value of risk events, due to the complexity of the project, market conditions, competitiveness, and timing of project; contingencies are likely to happen and do not form part of cost estimates.

Anticipated Amendments:

This is basically the pre-authorization of amending authority to a certain level. Individual contract amendments within this authority must still be approved by the appropriate level of contracting authority.

The total amount of the Anticipated Amendment to a project cost estimate is determined as the summation of the Expected Monetary Value of risk events reasonably expected to occur during the life cycle of a project.

Risk Management:

The art and science of identifying, analyzing, and responding to risk factors throughout the life of a project and in the best interests of its objectives. (PMBOK)

Risk Event:

A discrete occurrence that may effect the project for better or worse (i.e. late delivery of a piece of equipment is a "risk event" that may cause a schedule delay).

Probability:

The likelihood that an event will occur (i.e. Low, Medium, High).

Impact:

The result of the occurrence of an event on the project either positive or negative. (i.e. a schedule delay as a result of late delivery of a piece of equipment may have a high negative impact on a project; increased access to a construction site due to early departure of occupants in an office space may have a positive impact on a project).

The Impact of individual Risk Events can be qualified as low, medium, high or quantified in terms of time, cost (immediate cost or in-service cost (O&M)) or performance.

High risk*: A project (or element of a project) may be assessed as high risk if one or more hazards exist in a significant way and, unless mitigated, would result in probable failure to achieve project objectives.

Medium risk*: A project (or element of a project) may be assessed as medium risk if some hazards exist but have been mitigated to the point that allocated resources and focused risk management planning should prevent significant negative effect on the attainment of project objectives.

Low risk*: A project (or element of a project) should be assessed as low risk if hazards do not exist or have been reduced to the point where routine project management control should be capable of preventing any negative effect on the attainment of project objectives.

*per Treasury Board Secretariat Manuals Chapter 2-2 Project Management

EMV: Expected monetary value of risk event (i.e. cost or saving to the project if risk event occurs)

6.2 Risk Management Checklist

Probability, impact, overall risk, risk response and risk allowance are to be determined for each item listed below which is applicable to the project. Applicable items will be identified by the Departmental Representative.

Resources External to Project Management Team

- ◆ Planning Resources and Performance
 - errors and omissions
 - low accuracy of estimates (allowances)
 - data inadequacies
 - level of liability insurance
 - potential for misinterpretation / misunderstanding of documents
 - planning inexperience
- ◆ Construction Resources Required & Performance
 - level of liability insurance
 - design versus execution methods
 - suitability of execution methods to design
 - commissioning issues (start up / turnover difficulties)
 - contractor construction strategy
 - reputation of contractor
 - contractor financial stability
 - contractor inexperience
 - resources obtained less qualified than desired
 - availability / suitability / performance of resource

Project Scope Delivery

- ◆ Delivery of Specified Requirement
 - accuracy of client requirements in terms of cost/ schedule / performance / quality and ability to interface with existing environment
 - conflicting client priorities
 - low level of client knowledge
 - Y2K compliance
- ◆ Unstated Client Requirements
 - completeness of client requirements in terms of cost/ schedule / performance / quality and ability to interface with existing environment
 - restricted working conditions
 - opportunities for changes / positive impact
- ◆ Stakeholder Requirements, Stated and Unstated
 - low involvement of user groups in scope of definition
 - interface with existing systems
 - restricted working conditions
 - operational needs

Site / Asset / Building Actual Conditions

- ◆ Actual Physical Environment
 - availability / accuracy of as built documentation and existing condition reports
 - high variability / low stability of soils
 - potential for soil contamination
 - presence of hazardous materials
 - availability / access to site
 - presence of other contractors on site
 - climate (winter conditions, rain, wind, water levels)

Government / PWGSC / Client / Context

- ◆ Impact on Adjacent Areas Actual
 - impact on adjacent areas (land / tenants/ traffic / operations)
- ◆ Impact from External Sources
 - legal lawsuits, patent rights, licensing, etc.
 - political impacts including visibility of project
 - social sensibilities
 - potential strikes
 - market risks
 - bad press (media coverage)
- ◆ Impact from Unanticipated Regulatory Change
 - environmental legislation and environmental screening
 - potential changes to Acts, Codes and Regulations
 - municipal building / occupancy permit issues
- ◆ Procedures Known
 - suitability of bid documents
 - suitability of contracting method
 - delays in bidding process
 - client internal coordination
 - change order process

Plan Approval / Design Reviews

- approvals may be required from Client, PWGSC, Treasury Board, FHBRO, Fire Commissioner, Police, Emergency Services, Municipalities, Cities, etc.
- absence of Investment Analysis
- unstable / changing client organization
- heritage building issues
- health and safety issues
- potential for “hold orders”
- design review delays (client / PWGSC / TBS / other)
- approval delays (client / PWGSC / TBS / other)

SECTION 7A CIVIL DESIGN

7A.1 Review

All designs must be reviewed by the Department and conform to the requirements of the Project Brief or Terms of Reference.

7A.2 Principles

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

7A.3 Economy

Design strictly within the budget and in accordance with sound investment economics and operating and maintenance expenditures.

7A.4 Quality

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

7A.5 Regulations

Design shall comply with applicable Federal, Provincial and Municipal regulations and codes. In case of conflict, the most stringent requirements apply.

7A.6 Design General

PWGSC Review: The design alternatives and costs shall first be reviewed by PWGSC who will involve other regulatory bodies in the review as required.

Environment Canada Approval: The design shall satisfy Environment Canada. Public Works and Government Services Canada will arrange for a review of the proposed alternative and the design work through the office of Environment Canada, Federal Program Division. Environment Canada will arrange to have the design reviewed by other agencies.

Client Review: As the client is the user of the site and systems, and must maintain it in good working order to the satisfaction of all regulatory agencies, it is essential to involve the client through all the stages of review and decision.

7A.7 Design for Civil and Municipal Engineering

All Civil and Municipal Engineering Designs must comply with current Federal and Provincial Acts, Codes, Regulations, Guidelines and Codes of Practice including but not limited to:

- Guidelines for Canadian Drinking Water Quality (GCDWQ), 2008.
- Safe Drinking Water Act 2003-(SDWA).
- Recommended Standards for Water Works, (Ten State Standards) - 2007 Edition.
- Recommended Standards for Bathing Beaches, (Ten State Standards) - 1990 Edition
- Recommended Standards for Individual Sewage System, (Ten State Standards) - 1980 Edition
- Recommended Standards for Waste Water Facilities, (Ten State Standards) - 2004 Edition
- Recommended Standards for Swimming Pool Design and Operation, (Ten State Standards) - 1996 Edition.
- American Waterworks Association (AWWA) Standards.
- National Building Code of Canada (NBC).
- Ontario Building Code (OBC).
- Canada Standards Association (CSA).
- American Society for Testing and Materials International (ASTM).
- Canadian Environmental Protection Act (CEPA) -1999.
- Transportation of Dangerous Goods Act (TDGA)-1992.
- Canadian General Standards Board (CGSB).
- OPSS Ontario Provincial Standard Specifications (OPSS).
- OPSD Ontario Provincial Standard Drawings (OPSD).
- Canada Labour Code, Part II.
- National Fire Code of Canada (NFC).
- National Plumbing Code (NPC).
- Underwriter Laboratories of Canada (ULC).
- American National Standards Institute (ANSI) NSF/60 and NSF/61.
- National Fire Protection Association (NFPA).
- Guidelines for Effluent Quality and Wastewater Treatment at Federal Establishments, Environment Canada (Most Current version).
- Federal Environmental Assessment Process, Environment Canada.

Use the current versions of Ontario Provincial Standard Specifications (OPSS) and Ontario Provincial Standard Drawings (OPSD) to maximum extent possible.

Province of Ontario:

- .1 Occupational Health and Safety Act and Regulations for Construction Projects, Revised Statutes of Ontario 1990, Chapter O.1 as amended, O. Reg. 628/05 as amended, Designated substance-Asbestos on construction projects and in buildings & repairs operations, O. Reg. 278/05.
- .2 Workplace Safety and Insurance Act, 1997.

Provincial/Territorial guidelines and regulations govern, except where they are less stringent than those of the federal government, such as the following:

- Ontario Ministry of the Environment (MOE) (Effluent criteria, Certificate of Approval of Sewage and Water Works, Air).
- Ontario Ministry of Natural Resources (MNR).
- Ontario Ministry of Labour (MOL).
- Technical Standards and Safety Act (TSSA).
- Digester Gas Code CAN/CGA-B105-M93(R2007).
- Ontario Regulation 346 - General Air Pollution

Ontario Ministry of the Environment Design Guidelines (Most current versions)

1. Guidelines for the Design of Water Treatment Works.
2. Guidelines for the Design of Sewage Treatment Works.
3. Guidelines for the Design of Sanitary Sewage Systems.
4. Guidelines for the Design of Storm Sewers.
5. Guidelines for the Design of Water Distribution Systems.
6. Guidelines for the Design of Water Storage Facilities.
7. Noise and Air Emission Guidelines.

Other Applicable Regulations or Acts

1. Regulations for Construction Projects.
2. Workplace Hazardous Material Information System (WHMIS) Regulation, R.R.O. 1990, Reg. 860 (as amended by O. Reg. 356/91; and O. Reg. 36/93).
3. Occupational Health and Safety Act, Regulations for Construction projects, O. Reg. 213/91 (as am. By O. Reg. 631/94), Part II – General Construction.
4. Occupational Health and Safety Act, Industrial Establishments Regulation, R.R.O. 1990, Reg. 851 as amended, Part I – Safety Regulations.
5. Canada Labour Code, Canada Occupational Safety and Health Regulations, SOR/86-304, as amended, Part XI – Confined Spaces.
6. Technical Standards and Safety Act, 2000 (TSSA).
7. National Fire Protection Association (NFPA).

7A.8 Barrier Free Design for Disabled

In accordance with Section 1.

Design grounds to make them accessible and usable by disabled persons, unless otherwise required in the Project Brief. Conform to CAN/CSA-B651-04(R2010), Accessible Design for the Built Environment and for CSC projects, the Correctional Service Canada policy on accessibility. This includes making buildings and other facilities accessible to persons with a range of physical, sensory and cognitive disabilities.

7A.9 Drawings

Drawings shall be produced in accordance with Section 1.

7A.10 Specifications

Specifications in accordance with Section 4.

Comply with Section 4, Article 4.20 for lump sum contracts, Article 4.21 for unit price contracts, or Article 4.22 for combined lump sum and unit price contracts.

7A.11 As-Built and Record Information

In accordance with Section 1.

7A.12 Bid Documents Format

In accordance with Section 1.

7A.13 Work Measurement for Unit Price Contracts

Measure and record quantities of labour and materials involved, if work is based on unit prices, for verification of monthly progress claims and the Final Certificate of Measurement.

When a Contemplated Change Notice is to be issued based on Unit Prices, keep accurate account of the work. Record dimensions and quantities.

Record number of workers on site and hours worked daily.

SECTION 7B BRIDGE DESIGN

7B.1 General

For general and technical requirements for Bridge design, refer to following documents:

- Request for Standing Offer for Bridges
- Standing Offer for Bridges.

SECTION 8 STRUCTURAL DESIGN GENERAL REQUIREMENTS

8.1 General

All design criteria shall be in accordance with the current edition of National Building Code of Canada, its supplements and the relevant Canadian Standards Association Standards. If local or municipal codes and by-laws are more stringent, they shall take precedence.

For material properties (both physical and chemical), methods of fabrication, tests, etc. reference should be made to the latest editions of CSA the Canadian Standards Association Standards and CGSB the Canadian General Standards Board Specifications, give the standard number and date of the issue, etc.

8.2 Design

The Consultant shall discuss design loads with Public Works and Government Services Canada Structural Engineers before formulating his proposals.

The Consultant shall submit structural system proposals for consideration and review by Public Works and Government Services Canada. These proposals shall contain the following information:

- General description of the building.
- Design loads.
- Comparative cost analysis of several alternative structural systems, comprising superstructure and foundations.
- Recommended structural systems, compatible with the other systems proposed, i.e., architectural, mechanical, electrical, etc.

Prior to commencement of working drawings, the Consultant shall submit for consideration by Departmental Representative the following data:

- Design and location of expansion joints with temperature ranges, etc. as assumed.
- Design criteria for basement and retaining wall.
- Methods of shoring for excavations.
- Provisions for interfacing for phased construction projects.
- Other relevant information as necessary.

Public Works and Government Services Structural Engineers may require the submission of detailed analysis and design of any structural components, with sufficient time allowed for their review and approval before their inclusion on the drawings.

The Consultant shall submit at the completion of the design, a legible set of neatly bound notes with contents indexed. These notes shall provide the detailed analysis and design of all the significant aspects of the structure including the following.

- Design criteria and assumptions.
- Design live loads and dead loads throughout the structure, in adequate detail to permit the check of individual areas.
- Column, elevator core and footing design gravity loads throughout the building, including separation of dead loads, live loads and reduced live loads.
- Footing loads.
- Lateral forces and lateral forces analysis.
- Torsion analysis.
- Aspects of the design, other than those listed above, which Government Services or the Consultant would place in any especially important category.

8.3 Soils Investigation

A preliminary soils report will be prepared for PWGSC and copies will be made available as soon as they are ready. PWGSC will require the structural consultant to establish what additional soil testing information is required immediately after approval of the concept design. The consultant shall arrange for final soils investigator acceptable to the Department. The cost will be borne by the Department.

The soil consultant's recommendations, discussions, considerations, requirements and conclusions shall be submitted separately from soil data.

Drawings and diagrams forming part of soil data shall not exceed 216 mm x 279 mm in size or multiples thereof.

8.4 Live Loads

Floor areas to be used for General Office purposes, whether open-landscaped or divided by moveable partitions, shall be designed for a uniformly distributed live load of 3 kPa plus a uniformly distributed 1 kPa moveable partition allowance.

In the design of any floor slab, beams or girders, the 3 kPa uniformly distributed live load shall not be modified by reduction factors based on tributary area.

In the calculation of live loads on columns, no reduction factor for tributary area shall be applied to the uniformly distributed live load, for the top two office floors of multi-storey buildings.

Basement, main floor, corridors, assembly areas and fire refuge areas shall be designed for a uniformly distributed live load of 5 kPa.

Normal file registry areas shall be designed for a uniformly distributed live load of 5 kPa.

Mechanical equipment rooms and storage areas shall be designed for a minimum of 7.5 kPa.

For roof snow loading, Wind Exposure Factor shall be taken as 1.0.

8.5 Structural Drawings

Drawings shall be fully dimensioned. Weighted lines shall be employed and sections shall be cross-referenced, using the "PWGSC CADD Standards".

The following drawings shall be provided:

- Foundation plan.
- Floor and Roof Framing Plans.
- Column schedules containing the following information:
 - Datums as noted on structural plans.
 - Column loads at footings (dead and live).
 - Column sizes.
 - Vertical reinforcement, ties, dowels, etc.
 - Baseplate and anchor bolt details.
 - Size and footings.
- Live loads, partition, ceiling, floor finish and mechanical equipment allowances.

- Type of waterproofing and details to show effectiveness of same.
- General notes, including:
- Design Codes used.
- Lateral forces.
- Allowable bearing pressures.

8.6 Testing and Inspection

A resident Departmental Representative may be appointed and paid by PWGSC to ensure that the structure is built in accordance with Plans and Specifications and to maintain records of the blow counts for each pile (if applicable).

A testing company will be engaged and paid for by PWGSC for testing concrete, soils compaction, pile load tests (if applicable) and structural steel work (e.g. bolting, welding, etc.)

The structural consultant will be expected to make periodic visits to the site, as later agreed with the Departmental Representative.

8.7 As-Built and Record Information

In accordance with Section 1.

SECTION 9 MECHANICAL DESIGN

9.1 General

Read and understand the applicable General Conditions listed in Section 4.

This section stipulates the standards for design of building HVAC, fire protection, and plumbing systems.

Provide systems to meet the design requirement with least annual owning and operating cost.

Mechanical systems shall be compatible and co-ordinated with the architectural, structural, electrical and other project systems.

Systems and equipment shall be fail-safe consistent with required reliability of service.

Provide heating, ventilation and air conditioning systems that:

- Have the flexibility and capacity required to meet the requirements of intended use of space after the premises have been occupied.
- Have individual temperature controls and start/stop schedules for each room and each zone which have unique load variations and occupied hours.
- Have the capability of introduction of 100% outside air to permit flushing out the building, dilution of contaminants, and use of "free cooling" for energy conservation.

Provide plumbing systems in compliance with the National Plumbing Code and Ontario Plumbing Code.

Provide fire protection systems to meet the requirements of the Fire Commissioner of Canada Standards, the National Fire Code and Canada Labour Code.

9.2 Project Specifics

Refer to the Project Brief.

The Consultant shall review the operational requirements and applicable code requirements.

The Consultant shall develop alternative schemes with sufficient documentation to support the recommended systems and equipment for providing mechanical services to meet the requirements.

For office renovation projects, the Consultant shall review existing mechanical installation and documentation. Assess, evaluate, and make recommendations, for the upgrade of existing mechanical systems to accommodate new office layout.

9.3 System Applications

In accordance with project requirements, justify system selection and its design on the basis of performance, service and maintenance, and the total owning and operating cost.

Systems shall be capable of automatically maintaining space comfort conditions for all building load variations during the heating and cooling seasons.

Use outdoor air as free cooling source whenever economically feasible.

Avoid recirculation of exhaust air with outside air by properly locating intakes and outlets.

Use heat recovery systems for all air exhausted when such measures prove to be economical, as determined by life cycle costing.

9.4 Building Loads and Energy Estimates

Building load calculations and energy estimates shall be carried out using a computerized load and energy simulation program. This shall be a commercially available program and approved for use by PWGSC. Refer to Required Services (RS) sections for additional requirements.

The energy analysis program shall simulate all energy consumed in the building on a hourly basis for a full year.

The building energy analysis with input and output summaries shall be submitted with the concept design submission; revise and resubmitted with the design development submission and each of the 30%, 66%, and 99% construction document submissions. The updating shall reflect all the latest architectural and engineering changes to the project.

9.5 Energy Consumption Budget

Energy consumption budgets shall be established for all building projects.

Investigate and present for review a minimum of three viable and different concept options for each project. The options shall be evaluated based on building life cycle costs which will include initial capital cost plus annual energy operation and maintenance costs.

The analyses shall be based on annual energy consumptions and take into account climatic data, building architecture, clients' operational requirements and system and equipment data. Total energy consumed in the building shall be expressed in kWh per m².

Design HVAC systems to exceed Model National Energy Code of Canada for Building 2011.

9.6 Codes and Standards

In accordance with Section 1.

9.7 Federal Halocarbon Regulations (FHR 2003) and Environmental Protection Alternative Measures (EPAM)

All Consultants, Contractors and Subcontractors responsible for undertaking work related to equipment containing halocarbons are to be aware of the requirements prescribed under the Federal Halocarbon Regulations, 2003, and are to ensure compliance to the FHR 2003 as part of the EPAM.

9.8 Fire Protection Requirements

In addition to the National Building Code, Ontario Building Code, National Fire Code and NFPA Standards, fire protection is subject to the requirements of Fire Commissioner of Canada Standards issued by HRDC - Labour Program/Fire Protection for general storage, fire extinguishers and sprinkler systems.

Comply with the requirements of the Fire Commissioner of Canada. Fire protection systems are to be subject to the final inspection and test of the Fire Commissioner of Canada.

9.9 Plumbing Requirements

Provide complete plumbing systems including sanitary and storm drainage, domestic hot and cold water piping, and plumbing fixtures.

Drinking fountains shall be bi-level and shall provide drinking water at less than 13°C and shall be located no more than 30 m from any workstation on each and every floor.

Provide adequate supply of domestic hot water at constant temperature of 38°C to lavatories, showers and sinks.

Plumbing systems shall conform to the requirements of the National Plumbing Code 2005 and Ontario Plumbing Code 2010.

9.10 Heating, Ventilation, and Air Conditioning (HVAC) Requirements

Outside Design Criteria: Take outside design conditions from National Building Code and base on January 1% outdoor Winter design and July 2.5% outdoor Summer design temperatures.

9.11 Space Comfort Standards

General:

- The following comfort standards apply to air conditioning in general office type occupancy where sedentary adult activity may be expected. Requirements for other types of occupancy or for environments related to standards other than for human comfort to be as per latest published data in ASHRAE handbooks.
- Outdoor air ventilation rates shall be based on the latest edition of ASHRAE Standard 62.1-2004 "Ventilation for Acceptable Indoor Air Quality" unless special requirements or regulations dictate otherwise.
- Unless noted otherwise, conform to or exceed CSA Z204-94(R1999), "Guideline for Managing Indoor Air Quality in Office Buildings".

Temperatures:

- During occupied periods, and in the occupied zone, a minimum temperature of 21°C when heating, and a maximum of 24°C when cooling shall be maintained. The rate of change of dry bulb temperature is not to exceed 2°C per hour within the specified limited. The vertical temperature difference measured from 100 mm and 1700 mm above finished floor shall not exceed 3°C.
- The occupied zone is defined as the space volume between the floor and 1800 mm from the floor and more than 600 mm from walls or perimeter heating/cooling equipment.
- The average conductive heat loss at winter design temperature combining both glass and wall heat losses from zone exterior surfaces should not exceed 25 watts/m².
- Provide wall fin radiation heaters below all exterior windows in the building.
- Floor surface temperature: between 18°C and 29°C.

Relative Humidity:

- Maintain relative humidity between 30% (winter design) and 60% (summer design) at any point in an occupied zone.
- Rate of change of relative humidity at any point in the occupied zone is not to exceed 20% RH per hour within the above specified limits.

Filtration:

- All supply air (i.e. recirculated air plus outside air) shall pass through filters having ASHRAE minimum efficiency of MERV II or better.

Ventilation:

- Ventilation is defined as the supply of clean, odour and contaminant free air to a space in sufficient quantities to dilute and remove space generated air contaminants and odours and to maintain the occupant oxygen requirements.
- Generally, outside air is considered to be contaminant free air suitable for ventilation purposes. Outside air intakes shall not be located in the vicinity of loading dock or any high pollutant area. Exhaust air outlets shall be properly located to prevent entrainment in outside air intakes.
- Except for outdoor make-up air to replace exhaust air, ventilation requirements are related to people. A ventilation rate of 10.0 L/s of outside air per person is adequate for occupant comfort, provided sufficient total air is circulated in the space to dilute contaminants. The ventilation rate calculated on a per occupant basis is not to be less than 1.0 L/s/m² of gross zone floor area.
- Measurement of CO₂ concentration: Provide CO₂ sensor in the space or in the return air stream for monitoring CO₂ concentration. CO₂ sensor shall not be used by the air flow controls to reduce the outside air flow rate to below the minimum requirement of 10 L/s per person.

Air Circulation:

- Total primary air supply for general occupancy areas to be designed at not less than 4 L/s/m² of floor area or 6 air changes per hour.
- Total primary air supply to high occupant density areas, i.e. conference rooms, board rooms, high density workstation areas (high density occupancy is defined as a workstation with its foot print being less than 10m²), etc. to be designed at not less than 7.7 L/s/m² of floor area or 10 air changes per hour.
- Maintain air motion at velocities between 0.05 m/s and 0.15 m/s during Winter heating operation, and between 0.05 m/s and 0.23 m/s during Summer cooling operation in an occupied zone unless noted otherwise.

Acoustic Duct Liner:

- The air side of duct liner shall be coated with acrylic coating treated with anti-microbial agent to resist microbial growth.

As a minimum, office areas with regular density occupancy (the net occupiable space of each workstation is greater than 10 m²) shall have HVAC zoning as follows for individual zone temperature controls:

- Each private office.
- Maximum of 50 m² perimeter area with the same load profile along the same exposure. Perimeter area is defined as an area within 5 m of the outside wall.
- Maximum of 100 m² interior area with the same load profile.

Mechanical exhaust systems shall be provided to meet the following minimum requirements:

- Washroom or Janitor Closet: 10 L/s per m² of floor area; at least 25 L/s per sanitary fixture.
- Shower Room: 10 L/s per m² of floor area; at least 20 L/s per shower head.
- Enclosed Parking Garage: 7.5 L/s per m².
- Conform to current Canada Labour Code Part II.
- Make-up air for the above exhaust systems may be obtained from the adjacent corridors and offices.

- Provide dedicated exhaust systems for photocopier areas to maintain VOCs concentration not to exceed $3\text{mg}/\text{m}^3$, and exhaust directly to the outdoors.
- Provide a separate exhaust facility with individual speed control and ON/OFF switch for the lunch room.
- Maintain negative air pressures within the garage area in relation to surrounding building areas.

Mechanical system noise shall conform to the following Noise Criteria (NC) levels:

Conference, meeting rooms	25-35 NC
Teleconference rooms	25 NC max.
Private offices	25-35 NC
General open area offices	30-40 NC
Public area, corridors	40-45 NC

- Noises shall be free from annoying, recognizable characteristics such as rumble, hiss, tones, and variability of noise patterns.

9.12 Lan Room A/C

Provide continuous air conditioning to maintain temperature in LAN rooms and telecommunication rooms not to exceed 24°C at all times (24 hours/7 days per week).

9.13 TAB

Testing, adjusting and balancing of air distribution and hydronic systems performed by the Contractor shall be verified. The Consultant shall verify the results of not less than 20% of all reported measurements.

9.14 Building Automatic Control System Requirements

The networked Building Automation Systems (BAS) including the building Energy Monitoring and Control System (EMCS) shall be designed by a qualified control systems specialist recognized in this field.

As a minimum the drawings and specifications for the controlled systems shall include:

- An English language narrative sequence of operation.
- Mechanical control schematics.
- EMCS network architecture.
- DDC Input/Output Point Schedules in PWGSC format.

At the preliminary design briefing the Consultant shall obtain a copy of the current PWGSC Automatic Control System Master Specification Sections. The Consultant shall review and edit the PWGSC Automatic Control System Master Specifications.

9.15 Commissioning

PWGSC Commissioning Manager (or its representative) will overview all commissioning activities, review and approve all commissioning documents, overview Functional Performance Testing and O&M Training, and review the accuracy of all reported results. Commissioning shall be done to the approval of the PWGSC Commissioning Manager.

Unless noted otherwise, the Design Consultant shall have an overall responsibility for preparation of design intent and design criteria documents, preparation of Commissioning Specifications, preparation of

commissioning plan, system startup verification form, functional performance test forms, review of shop drawings, inspection of construction, verification of commissioning testing including installation testing, equipment starting and testing, system starting and testing, review TAB reports, review and approval of "As built" drawings and O&M Manuals, preparation of Systems Operating Manual, Maintenance Manual, and preparation of Commissioning Report.

Refer to Required Services (RS 7) for the additional commissioning responsibilities and key commissioning activities of the Design Consultant.

9.16 Drawing Requirements

Refer to PWGSC CADD Standards.

Numbering, size, symbols, title blocks, etc.:

- Number sheets consecutively, commencing with the Plot or Site Dwg. as M-1. Show the mechanical subject in the appropriate title block space, e.g. "Plumbing and Drainage", "Heating", "Air Conditioning and Ventilation", "Sprinkler System", "Details", etc.
- Do not combine Plumbing and Heating on one drawing unless the size and simplicity of the project make this feasible.
- Mechanical drawings shall be the same size as the Architectural Final Working Drawings for the project. Generally, the required size of pre-printed sheets for Working Drawings will be determined by the Departmental Representative.
- Room and area reference on mechanical drawings must in all cases show the room designation as used on "Room Finish Schedule".
- Consolidate notes on the right-hand side of the sheet.

Scale and room identification:

- Scale: All drawings must be legible and must include sufficient information to permit accurate bidding and installation.
- When the scale of plans is 1:50 all branches of the mechanical work (plumbing, air-conditioning, heating, etc.) may be shown on one plan, provided that these systems are not too complex.
- When the scale of plans is 1:100 a separate set of floor plans shall be made for each branch of the mechanical work, except that heating and air conditioning may be shown on one set of plans.
- A scale of plans smaller than 1:100 shall not be used.
- All boiler rooms, machine rooms, equipment rooms, etc. and all congested areas shall be fully detailed on the plans, and sections with all equipment that might be involved in interferences shown, and drawn to a scale not smaller than 1:50.
- Identical floors: Where floors are identical architecturally, typical floor plans may be used for mechanical work only where the complete floor is identical and riser diagrams clearly show all changes involved. Typical plans are not allowed, i.e. no "similar wings", "right-or-left-handed".
- Room numbers: Show all room numbers on mechanical drawings to facilitate co-ordination and cross-reference with those shown on architectural and electrical drawings.

Drawing Requirements:

- Each set of drawings, namely, plumbing, heating, air conditioning, etc. must give scales, floor elevations and compass points, column grids, column numbers and titles. The elevation of the lowest floor shall be shown. Drawings shall show elevation of all main pipes and ducts.
- Piping riser diagrams and system flow diagrams shall be provided for all multi-storey buildings and shall include all piping sizes not clearly indicated on floor plans and details. Single line piping diagrams shall be provided to indicate connections to all system components, together with pipe size schedules where various sizes of units employ the same diagram. Flow diagrams shall show all equipment in true sequence

showing piping, valves, control valves, strainers, pressure gauges, thermostats, etc. Identify equipment on these diagrams using nomenclature corresponding to that used in the appropriate equipment schedules.

- When using three or more similar pieces of equipment, all pertinent information as to size, capacity, etc. shall be shown in a schedule.
- Cross sections of mechanical rooms shall relate to the operator's view in mechanical room. Clearly diagram each system to show intent of system and method of operation and control.

Piping and Ducting Location:

- The piping and ducting shall be shown, as nearly as possible, in the location where it is to be actually installed. Conceal all piping, ducting and other services in ceilings, chases, shafts, furred out spaces or partitions, except in basement or storage areas not occupied by personnel.
- Piping of any description shall not be located in any space used as switchboard (switch-gear) or transformer room or electrical closet.
- As far as possible, no piping or ductwork shall be run above switchboards, motor control centres or surface mounted panelboards located in mechanical equipment rooms. Where piping for any service must run above such equipment, a drip pan shall be specified.
- Water and waste pipes shall not be located in exterior walls where there is danger and freezing.
- Pipes, ducts or other utilities shall not be embedded in the fireproofing of any column or other structural member or between the fireproofing and the structural member protected.

Pipe Sleeves: The structural or the architectural drawings must show the pipe sleeves for all pipes passing through footings of exterior walls below grade. The elevations of sleeves must be given.

Waterproofed Floors:

- Where floors are waterproofed, all pits, cleanout manholes, trenches, etc. shall be kept to a minimum, i.e. thicken slab to contain waste pipes under basement or in the case of large drains, consider waterproofed trenches.
- Drainage piping required in slabs subjected to hydrostatic pressure shall be co-ordinated with the structural design.

Checking of Drawings:

- Drawings must be checked for completeness, clarity, interferences with structural features and with electrical equipment, and agreement with the architectural drawings.
- A large part of the checking, particularly the interferences between the mechanical and electrical systems and the structural features, can be made during the preparation of the drawings.

"As Built" Drawings and Specifications: Specify that each mechanical subcontractor shall record, on one set of white prints all changes, alterations, as well as any additions as covered by authorized "Change Orders" at the same time approval is received from the prime Consultant. This shall include rerouted lines, located ducts, valves and equipment.

9.17 Specification Requirements

Specifications in accordance with Section 4.

At the 33% submission of working documents, provide outline specifications for all systems and principle system components and equipment. Provide the outline specifications with manufacturers literature about principal equipment and system components proposed for use in this project.

The specifications with table of contents shall consist of typed and edited PWGSC Ontario Region amended NMS and in house specification sections.

9.18 Design Submission Requirements

Design Concept Submission:

- Submit design intent and design criteria document. Provide the following information for each room in the building:
- User's function and requirements.
- Estimated maximum occupancy.
- Indoor summer design conditions.
- Indoor winter design conditions.
- Outdoor air supply ventilation rate per person.

Provide a description of proposed mechanical options. Provide the following information for each proposed option:

- An economic and technical explanation of the reason for the proposed mechanical systems.
- A copy of building energy analysis with input and output summaries.

Design Development Submission:

- Produce the preliminary designs based on the approved concept.
- Provide system flow diagrams and EMCS network architecture. Describe the mechanical systems, the components of each system, the operation of each system, and the updated energy analysis summaries.

Submissions of Construction Documents:

- The 33% submission shall include floor plans showing routing of major HVAC, plumbing and fire protection systems, piping riser diagrams and system flow diagrams, EMCS network architecture, outline mechanical specifications, and the updated energy analysis summaries.
- The 66% submission shall include updated 33% submission plus mechanical room layout drawings, mechanical control schematics, DDC Input/Output Point Schedules, equipment schedules, and mechanical specification sections, and the updated energy analysis summaries.
- The 99% submission shall include: Plans and Specifications detailing the requirements for the construction. Updated design intent and design criteria document. Updated energy analysis summaries.

Refer to Required Services (RS) for additional requirements.

9.19 As-Built and Record Information

In accordance with Section 1.

SECTION 10A ELECTRICAL WORK PROCEDURES

10A.1 Site Characteristics

Visit the site and evaluate its characteristics.

10A.2 Meetings and Schedule

Attend all meetings throughout the entire Work project development period.

Assist in establishing work schedules for electrical work compatible with other disciplines.

10A.3 Concept Submission

Submit information necessary to allow evaluation of the basic design concept with the Concept Submission.

Submit drawings illustrating the final concept including:

- Distribution diagram showing single line diagrams to distribution centres.
- Floor plans complete with locations of major electrical equipment and distribution centres.
- Lighting layouts.
- Power outlets.
- Ceiling distribution systems for lighting, power and telecommunications.
- Elevator control room plan and preliminary details.
- List of standard PWGSC details to be utilized.
- Telephone rooms, conduits and telecommunication cable systems requirements and layout.

Provide draft specification sections. Request PWGSC Ontario Region amended NMS and in house master specification sections suitable for the project for guidance.

Provide the initial cost estimate of electrical work for the Project Cost Plan in accordance with Sections 11 and 12.

10A.4 Design Synopsis

Provide a design synopsis with the final concept design, describing the electrical work in sufficient detail for assessment and approval by the Departmental Representative.

10A.5 Working Documents

Upon approval of the final design concept start the working documents; drawing sizes, lettering, electrical symbols, etc. to match the architectural.

10A.6 Design Submission

Provide drawings showing advanced development of the following:

- Single line diagram of the power circuits with their metering and protection, including:
- Complete rating of equipment.
- Ratios and connections of CT's and PT's.
- Description of relays when used.
- Maximum short circuit levels on which design is based.
- Identification and size of services.
- Connected load and estimated maximum demand on each load centre.
- Electrical plans with:
- Floor elevations and room identification.
- Legend of all symbols used.
- Circuit numbers at outlets and control switching identified.
- All conduit and wire sizes except for minimum sizes which should be given in the specification.
- A panel schedule with loadings for each panel.
- Telephone conduits system layout for ceiling/floor distribution.
- Intercom system empty conduit layout.
- Riser diagrams for lighting, power, telephone and telecommunication cable systems, fire alarm and other systems.
- Elementary control diagrams for each system.
- Schedule for motor and controls.
- Complete lighting layout and fixture schedule clearly indicating methods of circuiting, switching and fixture mounting.
- Electric heating layout and schedule.

Provide the following data:

- Total connected load.
- Maximum demand and diversity factors.
- Sizing of standby load.
- Short-circuit requirements and calculations showing the ratings of equipment used.

Provide draft specifications.

Provide an intermediate cost estimate in accordance with Sections 11 and 12.

10A.7 100% Submission

This should be complete working documents subject to final review by the Departmental Representative. Provide the following:

- Complete working drawings and specification for bidding purposes.
- Final cost estimate in accordance with Sections 11 and 12.

10A.8 Final Submission

After review of the 100% documents by the Department, make all required revisions and provide the following:

- Bid documents in accordance with Section 1.
- Confirmation of final cost estimate in accordance with Sections 11 and 12.

10A.9 Inspection Authority Submission

Submit and obtain approval on plans and specifications required by the Inspection Authority before bid call.

10A.10 Bid Call Period

Provide necessary advice to the Departmental Representative during bid calls, including amendments, bid evaluation, etc.

10A.11 Construction, Instruction and Supervision

Attend the Construction Briefing Meeting and subsequent project meetings as necessary. Inspect electrical work and materials and provide constant supervision of construction to ensure compliance with the contract documents.

Participate in the interim and final inspection process.

Assist in the electrical portion of the project schedule.

10A.12 Progress Reports and Payment Claims

Report weekly to the Prime Consultant on the progress of electrical work.

Examine Contractor's claims for electrical work and advise the Prime Consultant.

10A.13 Inspection Certificates

Prior to take-over, obtain from the Contractor all inspection certificates confirming that installed electrical work conforms with specifications and regulations.

10A.14 Operation and Maintenance Manuals

Review Operation and Maintenance Data Manuals submitted by the Contractor.

Prepare and submit to the Departmental Representative, Preventive Maintenance Manuals and Operation Instructions Manuals, in accordance with RFP.

10A.15 As-Built and Record Information

In accordance with Section 1.

SECTION 10B ELECTRICAL DESIGN GENERAL ELECTRICAL DESIGN

10B.1 Design Basis

Base the electrical design on providing the following features at the most economical cost, considering both investment and operating expenditures:

- Safety to personnel during operation and maintenance.
- Ease of maintenance for equipment maintained by non-specialized personnel.
- Flexibility and reliability of electrical services.
- Proper co-ordination of all elements of the system as to:
 - Insulation levels.
 - Interrupting capacities.
 - Protective relaying.
 - Mechanical strength.
- Energy conservation with respect to system and equipment and their operation.

10B.2 Codes and Standards

In accordance with Section 1.

Electrical work to conform with the Canadian Electrical Code CSA C22.1-2012, Part 1, Ontario Electrical Safety Code 2012 and all bulletins, Canada Labour Code Parts IV and VI and applicable local codes and regulations.

Require CSA certification on equipment.

Specify applicable standards for equipment, i.e., EEMAC, CSA, ULC, ASTM, NFPA, ANSI, etc.

10B.3 Materials and Equipment

Require Canadian products where economically feasible. Avoid specifying trade names.

Specify that within 30 days after contract award the Contractor submits for approval of the Departmental Representative 5 complete lists of all materials and equipment that he intends to use in the Contract.

10B.4 Fees and Permits

Specify that the Contractor pay fees and obtain permits as required by authorities having jurisdiction.

10B.5 Nameplates

For major equipment specify plastic white on black sandwich type nameplates be attached with metal screws; letters to be minimum 10 mm high.

Use plastic nameplates (adhesive-applied) for receptacle and switch cover plates in laboratories and other work areas.

Provide the Contractor with co-ordinated nameplate titles.

10B.6 Poke Through Wiring

Electrical power to any floor area is to be supplied from electrical panels on that floor to avoid the use of "poke through" wiring.

10B.7 Incoming Electrical Services

Underground: generally, underground service is preferred and use where required to conform to local practice. Cable and installation should be to the approval of the local Power Supply and Inspection Authorities. Provide spare ducts for future additions or maintenance.

Overhead: overhead service may be economically acceptable for small buildings.

Carry out economic analysis and submit:

- An analysis of the capital investment on equipment and long-term electrical energy cost for purchasing energy at utility voltage level against purchasing energy at higher voltage levels, taking into account energy losses in equipment such as service transformers.
- An estimate of the equipment and installation cost for the proposed electrical system.
- A calculation for the interest, at the current interest rate as furnished by Bank of Canada, on the difference in investment on alternative concepts of the electrical system.

Primary service equipment: Include protective devices, instrument transformers, metering equipment and other requirements of the local Supply Authority.

Well in advance discuss with the local PUC the size and type of service required. Obtain from the PUC the three phase symmetrical short circuit fault level at the incoming end of their service to determine the interrupting capacity of their service equipment.

Obtain from the local PUC data regarding point of connection, service characteristics and requirements, extent and cost of work provided by the Authority, type of service required (overhead or underground), whether a transformer vault is required and reasons therefore, and the best method of metering (primary or secondary, etc.).

Obtain approval from the local Supply Authority and Inspection Authority having jurisdiction for the proposed service entrance equipment, switchgear, duct-manhole systems, transformers, overhead systems and associated equipment.

Existing services: obtain locations of all buried service such as electrical, telephone lines, water and sewer lines, gas mains, etc. Specify that the Contractor take adequate protective measures before any digging operations commence.

Duct systems: determine the size and location of incoming ducts for electricity, telephones, fire alarms, etc., and indicate them in the working documents.

10B.8 Transformer

Dry type transformers are preferred for primary voltages of 5 kV or lower where insulation, co-ordination and protection satisfactory to the Power Supply Authority can be obtained. Provide lightning arrestors.

Liquid cooled transformers are preferable above 5 kV although dry type may be used if approved by the Power Authority. Check BIL requirements.

Establish transformer noise levels which will not cause interference in working areas.

Specify standards to establish quality, tests and performance.

10B.9 Capacity of Electrical Service

Allow for 100% lighting load plus an appropriate demand factor on the remaining load based on operating characteristics.

The main service should provide for minimum 50% expansion.

10B.10 Transformer Vaults

Allow for future expansion.

Provide an independent ventilation system (gravity where possible) with intake and exhaust direct to the outside.

10B.11 Switchgear Assemblies

Use metal-enclosed assemblies with drawout circuit breakers where current, voltage and short circuit characteristics are within their limits.

Incorporate H.R.C. current limiting fuses into circuit breakers on circuits requiring high short circuit protection.

Provide a co-ordination study to justify selection of fuses and breakers.

Specify standards to establish quality, tests and performance.

10B.12 Distribution Levels

Submit for Departmental approval a study of load requirements taking into account the overall plan.

120/240 volt power may be required to serve specific items of equipment.

A 208Y/120 volt, three-phase, four-wire system for lighting, receptacles and power is usually satisfactory for smaller buildings.

From the load and type of building make an economic study to determine if the use of a 600/347 volt system is warranted.

10B.13 Panelboards

Use circuit breaker type panelboards for motors, power equipment and lighting.

Circuit breakers to be of the bolt-on type. Multiple breakers to have single handle. Tie-bars not allowed.

Switch and fuse units may be used for high short circuit protection.

Specify standards to establish quality, tests and performance.

Mains or bussing to be made of copper.

Specify that each circuit shall be clearly labeled in a typewritten directory with a clear plastic cover.

Branch circuit panelboards to be fitted with lock type doors.

Specify minimum interrupting capacity rating.

Include a minimum of 20% spare breakers, and in laboratory and workshop areas provide space for 30% more.

Recessed panelboards should have additional spare, empty conduits extending to ceiling spaces.

Comply with PWGSC Advisory Notice on Counterfeit-Labelled Moulded Case Circuit Breakers issued June 28, 2012.

10B.14 Wiring Methods

Specify that either rigid steel or aluminum conduit be used for panel feeders, for 600 volt equipment, and in other locations required by the Canadian Electrical Code and local regulations.

PVC or FRE conduit may be used for underground work. Conduit embedded in concrete must not be aluminum.

Electrical metallic tubing, EMT, may be used in locations approved by the Canadian Electrical Code and local regulations. Provide insulated green ground conductor in EMT conduits.

For motors and equipment subject to vibrations or movement provide flexible connections of liquid-tight flexible metal conduit.

Specify conduits to be installed neatly with adequate bracing and clearances from adjacent equipment, and maintaining watertight penetration of walls and floors.

Wire size to be No. 12 AWG minimum for power or lighting circuits. Minimum conduit size for power and lighting circuits shall be 20 mm dia.

Conductors to be copper.

Conceal conduit and wiring in finished areas.

Permanent tags should be provided to feeders at pull and junction boxes.

10B.15 Ceiling Distribution System

Power System:

- Provide an electrical distribution system above the suspended T-bar ceiling with duplex receptacles to accommodate downfeed service poles. A minimum of (4) four duplex receptacles shall be spaced at 3.5 m (maximum) center to center, both ways. Connect no more than six (6) receptacles to a 15A circuit.
- Identify each receptacle with the panel and circuit number on red dymo tape.
- Receptacle boxes shall be securely fastened to the slab above and must not be installed more than 600 mm above T-bar ceiling.
- An insulated ground wire shall be installed in each conduit and grounded to the common panel ground.
- Where electrified screens are installed, provide a power distribution system in the ceiling space complete with junction boxes to Code requirement, one for each 40 square meter area with 208/120V, 3 Ph, 8 wire 4 circuit system in each box.

10B.16 Equipment Connections

Indicate on the working drawings wiring for motors, control equipment and other electrical equipment installed under other Divisions. Do not include low voltage (below 50 volts) wiring.

Extend wiring to equipment furnished by the Department.

10B.17 Switches and Receptacles

Switches for lighting to be specification grade AC rated 15/20 ampere, 120/240 volts, ganged where possible and mounted at maximum 1200 mm centre from finished floor.

Receptacles to be specification grade U-ground type, triple wiping contacts, rated 15 A, 125 volt, mounted minimum 400 mm centre above finished floor.

In lunch room provide above the counter two 15 A, 125 V duplex receptacles; each to be split wired and with a pilot light and switch.

In laboratory and shop areas:

- In areas where benches or counter tops may be located receptacles not part of the furniture should be mounted 1.0 m above the floor and spaced 1.5 m apart.
- Use a minimum of one 30 A, 240 volt receptacle per laboratory.
- Connect not more than 2 duplex receptacles to a circuit for bench receptacles.

Ratings of other receptacles as indicated or required.

10B.18 Corrosion Resistant Finishes

Cover plates, surface-mounted outlet boxes, etc., located in areas where corrosive materials may be used must have suitable corrosion resistance. In laboratories, ensure that finishes on electrical equipment cover plates and surface mounted outlet boxes match the finishes on mechanical fittings.

10B.19 Motor

Co-ordinate control sequences to provide starters and other auxiliary control equipment with the proper characteristics and features to obtain the performance intended.

Provide disconnect switches, starters and auxiliary control equipment which are not an integral part of packaged units described in equipment specifications but which are required for performance and sequence of operation of equipment specified under other Divisions.

Motors 400 W and over are to be three-phase.

Check that the voltage drop due to motor starting is within limits acceptable to the local utility. If required, use a reduced- voltage starter.

Provide motors with thermal-overload protection of the manual reset type. Built-in overloads in the motor are not acceptable. Specify that protection be co-ordinated with motor characteristics.

Single phase motors to be controlled by manual starters and not by tumbler switches.
Motor starters are not to be supplied from lighting panelboards if at all possible.

Automatic-control devices such as thermostats, floats or pressure switches may control the starting and stopping of motors directly, if designed and rated for that purpose, otherwise use a magnetic starter.

When a manual-automatic operation is required, use a "Manual-off-Automatic" selector switch. Connect the selector switch so that only the normal automatic regulating control devices will be bypassed when the switch is in manual position. Connect safety control devices, such as low or high pressure cutouts, high temperature cutouts, motor overload, etc., in the control circuit in both the Manual and Automatic positions of the selector switch.

For three-phase motor starters provide:

- Magnetically operated motor starter.
- Fused control transformer for all 110 volt control.
- Manual-off-Automatic selector switch where remote control is used.
- Preferred: combination starters. Acceptable: starters with separate disconnect devices.
- Motor starter disconnecting devices to be manually operated and to be load-break fused switches or air circuit breakers.

Control devices in individual special purpose enclosures should be mounted in groups.

Co-ordinate all motor controls with the Mechanical Consultant.

10B.20 Motor Control Centres

Use motor control centers where they provide an economical and practical grouping of controls. Centres should be free-standing structures. Use combination starters. Mount centres on continuous mounting channels on raised concrete pads. Wall mount type may be used for groups of up to four starters. Identify each circuit by a black laminated plastic nameplate with white letters. Specify control centres as per EEMAC Standard for class and type.

10B.21 Motor Equipment Feeders

In open equipment areas consider the advantages of running motor equipment feeders from overhead rather than up through floor slabs.

10B.22 Underfloor Ducts or Raised Floors

Underfloor duct or raised floor systems for power, telephones and intercom may be used in office areas, but not in laboratory areas. Submit a cost estimate and preliminary layout at Concept Stage Submission, if considered feasible.

10B.23 Telecommunication Systems

Provide an empty conduit system for voice and data communication systems directly from the main building communications room or the building communications riser room on the same floor to the communications room in the tenant space to suit.

Where plenum cable system is provided for voice and data communication systems in the ceiling space, ensure that these cables are properly supported from the structural ceiling slab and not laid on top of ceiling tiles.

Where required for security and/or physical protection purposes, provide an empty zone conduit system for telephone and data communication systems with each zone conduit serving a bay area of maximum 50 m². Provide 50 mm EMT conduits with plastic end bushings and nylon pull strings. Provide long radius 90a bends and pulling points as required by telecommunication systems companies.

10B.24 Intercommunication Systems

Provide an intercom system or empty conduit system only for an intercom system. Submit proposed layout at the Design Stage Submission.

10B.25 Elevators

Conform to the National Building Code, Canada Labour Code Part IV, local regulations, ASME A17.1-2010/CSA B44-10 Safety Code for Elevators, Dumbwaiters, Escalators and Moving Walks and CAN/CSA-B651-04(R2010), Accessible Design for the Built Environment or CAN/CSA-B355-09 Lifts for Persons with Physical Disabilities.

Provide elevators, dumbwaiters, and escalators only where they can be justified as functional requirements of the building.

Where groups of units are involved, submit an elevator analysis to indicate the performance of the system proposed.

Direct plunger hydraulic elevators may be used for elevators serving 2 or 3 stops provided ground conditions do not introduce serious difficulties in installing the cylinder.

Provide fire fighters service if required by the codes.

10B.26 Clocks

Provide manual reset clocks and clock outlets in strategic areas such as main lobbies, corridors, general offices and conference rooms. Use an automatically supervised clock system in large buildings where economically justified.

10B.27 Fire Alarm System

General: Depending on the size of the building provide a fire alarm system in accordance with the National Building Code and Treasury Board Personnel Management Manual, Occupational Safety and Health, Chapter 3-4 "Standards for Fire Alarm Systems" 01-02-92. Installation to CAN/ULC-S524-06. Verification of Alarm System to CAN/ULC-S537-04. Inspection and Testing of Alarm System to CAN/ULC-S536-04.

Fire alarm system to be multiplex or hardwired to suit the project. Submit cost comparison with preliminary layout at concept stage submission.

10B.28 Voice Communication System

Conform to requirements of the National Building Code and the Treasury Board Manual, Personnel Management Manual, Occupational Safety and Health, Chapter 3-4, Standard for Fire Alarm System, 01-02-92. Depending on the size of the building, provide a voice communication system in conjunction with the fire alarm system.

The design, inspection and testing is to be subject to the approval of the FC.

10B.29 Standby Power

If a standby electrical generating set is required provide specific requirements here.

Provide a standby electrical generating set to supply emergency power for 12 hours minimum.

Emergency power supply shall be in accordance with CAN/CSA-C282-09, Emergency Electrical Power Supply for Buildings.

Enclose generator room with non-combustible materials having a 2 hour fire rating and by Underwriters Laboratories labeled 1-1/2 hour fire rated doors.

Install diesel engine in accordance with the requirements of the NFPA 37-2010.

Fuel supply and piping system is to be in accordance with National Fire Code of Canada, NFC 2010.

Standby lighting, power panels and circuits shall be provided for future connection to standby generator even if generator is not required at the design stage.

Receptacles connected to emergency system to be colour coded red for ready identification.

10B.30 Lighting General

Lighting systems to be designed to provide the required illumination levels with ease of luminaire relocation, lighting control and lighting maintenance with no damage occurring to components. Refer to PWGSC Office Lighting Design Standard and Application Guidelines, April 2012 for detailed information not contained in this section.

Ceiling surfaces to have a 80% minimum reflectance, a minimum NRC rating of 0.8 as per ASTM C423-09a test standard titled Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method and conform to CAN/CSB 92.1 M85 of the National Standards of Canada, titled Acoustical Units, Prefabricated.

Leave a minimum ceiling depth of 220 mm for ceiling recessed luminaire installation, unless otherwise determined by PWGSC.

Submit co-ordination drawings showing worst cases of ceiling space requirements and clearances for structural, mechanical and electrical components.

Provide exterior security lighting for drives, walks, parking areas, entrance/exit doors and other strategic locations. Exterior lighting to be controlled by timer or photocell. Provide manual by-pass switches.

Provide the Department with detail calculations of light intensities to support the design.

10B.31 Lighting Levels

For each room or area determine the task performed and provide minimum maintained average illumination levels to meet Labour Canada Regulations and PWGSC Standard, IESNA recommended lighting levels and Tables 1 and 2 attached at the bottom of this section. These levels may be achieved by using non-uniform task ambient lighting layouts.

In cases where visual task description, furniture layout and office layout is unavailable, a minimum base illumination level of 750 lux average maintained over the entire work space is to be used.

Minimum to average illumination ratio to be 0.8 or better over the entire working area.
Provide local switching for enclosed rooms, e.g., private offices, conference rooms, training rooms, etc. For large areas provide local switching arrangements to conveniently control and conserve energy.

10B.32 Lighting Power Allowances

Conform to ANSI/ASHRAE 90.1-2010 (SI) requirements.

While individual areas may deviate from the ANSI/ASHRAE recommended values, the total power budget for lighting shall not exceed 22 watts per square metre, unless otherwise determined by PWGSC.

10B.33 Energy Consumption

Conform to ANSI/ASHRAE 90.1-2010 (SI) requirements.

10B.34 Luminaires

Fluorescent luminaires is preferred for indoor applications. Depending on the luminaire design, these luminaires shall be capable of accommodating up to 76 mm high metal louvres. The use of incandescent luminaires is limited to applications where questions of aesthetics, ultraviolet emission and lighting control requires it. Use compact fluorescent lamps where possible.

The use of HID luminaires is limited to support and utility spaces. Special dispensation of this use limitation can be obtained from the PWGSC Regional Electrical Engineer, provided the requirements of PWGSC requirements are met.

For outdoor applications the use of HID luminaires is preferred.

Illustrate all fixtures on the working drawings or standard details sheets and specify in detail the quality of material, construction and standard of performance required. Manufacturer's name and catalogue numbers are not allowed in contract documents.

Specify fluorescent luminaires either 300 mm or 500 mm width to suit ceiling modules for recessed installation.

10B.35 Ballasts

For fluorescent fixtures, use electronic type, rapid start, energy efficient, high power factor, with THD not exceeding 15, and sound rated A ballasts, having low current crest factor (less than 1.8) and wired to maximize energy efficiency. Electronic ballasts must be the type approved by PWGSC, Provincial and local Hydro authorities for energy efficiency and harmonic criteria.

HID's ballasts to meet or exceed the performance requirements of ANSI C82.4-2002, and to be suitable for the lamp and temperature specified.

10B.36 Lamps

Provide lamps of the best quality available. Generally, fluorescent lamps to be rapid start, 32 watts T8 3500 K. Incandescent lamps are to be for 130 volt operation. Specify initial and average lumens and rated life.

Specify 3500 K fluorescent lamps for new installations and major renovations.

10B.37 Lighting Controls

Manual controls:

- These may be line switches, low voltage switches, time switches, photo controls and contactors. They should be located to maximize convenience and load control.
- Circuit breakers and light contactors are not to be used as localized manual lighting controls.

Microprocessor lighting controls:

- May be operated from a central master control unit, have field distributed control panels for zone control and local "on-off" controls. Programming functions can be assigned from the main console unit and/or assigned from field control panels. Local control can be achieved via a wall switch or telephone line.

10B.38 Emergency Lighting

Provide sufficient emergency lighting to permit a safe evacuation. Emergency lighting systems must be installed in accordance with Canada Labour Code Part IV and PWGSC Standard Office Lighting Design Standard and Application Guidelines, April 2012.

Emergency battery lighting units must be performance certified by CSA as meeting CSA C22.2 No.141-10, Emergency Lighting Equipment.

10B.39 Exit Signs

Exit and paths of exit travel are to be indicated by electrically illuminated full panel bilingual exit signs. Size of lettering to meet the National Building local Fire Department and CAN/CSA-C860-11, and photoluminescent exit signs to CAN/ULC-S572-10. Performance of Internally Lighted Exit signs requirements. Connect electrified Exit Signs to emergency power system.

If there is no provision for a standby generator, connect to emergency battery units.

10B.40 Heating

Co-ordinate heating with mechanical and architectural design. If electrical heating is used, ensure that the heating units specified provide the required wattage but do not exceed specified values. Integrate the heating controls with the total environmental aspect of the building.

10B.41 Transient Voltage Surge Suppressors (TVSS)

TVSS is to be fully applicable for the purpose of protecting all facility AC electrical circuits from the hazardous effects of transient voltages. These transients may be generated externally by lightning induced energies, utility load factor corrections, and substation switching or they can be internally generated due to inductive and/or capacitive load switching.

10B.42 Lightning Protection

Determine the necessity of installing lightning protection. If required, provide protection to meet CAN/CSA-B72-M87(R2008), latest provincial Lightning Rods Act, provincial or local regulation, the requirements of Provincial Fire Marshal.

10B.43 Security System

Provide an alarm system against unauthorized entry of the premises and certain secure areas. Use door switches and alarms plus an electronic intrusion alarm system.

10B.44 Lighting Levels

Table 1 - Recommended Levels of Illumination (Interior).

TABLE 1

Illumination levels for interior office spaces, expressed as minimum acceptable values of maintained average horizontal lux levels over

a) the working plane at each work station and

b) at floor level for support spaces. Refer to IESNA Illuminance Surveying techniques for field measurements.

Description of Task	Illumination (lx) 10 lx = 1 dalx
High Contrast Visual Task (4) (7)	600
Low Contrast Visual Task (5) (7)	1,000
VDT use (3)	300-500 (1)(2)
Filing work (6)	300
Circulation areas immediate to task areas	200
Public spaces, lounges, waiting areas	100-200
Notice Boards	300
Conference, training rooms	300-600 (1)
Corridors	100
Cafeteria - dining (9)	75
Cafeteria - food display, serving, cashier (9)	300
Food preparation (9)	500
Washrooms (8)	200
Powder room - grooming (8)	300
Stairways	100

Note

- (1) Provide flexible and/or dimmable lighting levels.
- (2) VDT task in conjunction with paper oriented task requiring greater illumination will conform to the requirements of the latter.
- (3) For guidance in lighting design for VDT spaces see publication PWGSC Design Guide "Office Lighting for Video Display Terminals".
- (4) Typically found in private offices, clerical work and accounting offices.
- (5) Typically found in drafting offices, mapping and artwork offices.
- (6) Typically visual tasks of high contrast and large size, or tasks of intermittent visual nature.
- (7) For general office spaces with undetermined task use 750 lux and a minimum to average ratio of 0.8. and is the actual sink top.
- (8) The reference plane is the actual sink top.
- (9) The reference plane is the actual table top, counter top or serving surface.

10B.44 Lighting Levels

Table 2 - Recommended Levels of Illumination (Exterior).

TABLE 2

Illumination levels for exterior commercial office building spaces, expressed as minimum acceptable values of maintained average horizontal lux levels over usable area and at pavement level. Refer to IESNA Illuminance Survey techniques for field measurements.

Description of Task	Illumination Level (lux) (1)	Uniformity Ratio
OPEN PARKING		
Vehicular traffic low activity	10	4:1
Vehicular traffic, moderate-high activity	20	4:1

Vehicular intersections	30	3:1
Pedestrian walkways	10	N/A
Pedestrian walkways and vehicular intersection	30	3:1
Other area	10	N/A
<u>COVERED PARKING</u>		
General parking and pedestrian areas	50	4:1
Ramps and corners	100	3:1
Entrance area (Note 2)	500	N/A
<u>BUILDING FLOODLIGHTING</u>		
Building façade (vertical illumination)	100-300	4:1

Note

1. Provide photocell control with manual bypass.
2. The entrance area is defined as the portal or physical entrance to the covered portion of the parking structure and 15 m beyond the edge of the covering into the structure.

10B.45 As-Built and Record Information

As-built information is received from the Contractor. It contains drawings, specifications, shop drawings, submittals, samples, etc. It is noted as such by the Contractor.

Record drawings and specifications are updated originals prepared by the Consultants based on the information supplied by the Contractor in the as-built.

SECTION 10C GENERAL ELECTRICAL DESIGN (CSC) Correctional Service Canada

10C.1 Design Basis

Base the electrical design on providing the following features at the most economical cost, considering both investment and operating expenditures:

- Safety to personnel during operation and maintenance.
- Ease of maintenance for equipment maintained by non-specialized personnel.
- Flexibility and reliability of electrical services.
- Proper co-ordination of all elements of the system as to:
 - Insulation levels
 - Interrupting capacities
 - Protective relaying
 - Mechanical strength
- Energy conservation with respect to system and equipment and their operation.

10C.2 Codes and Standards

In accordance with Section 1.

Electrical work to conform with the Canadian Electrical Code CSA C22.1-2012, Part 1, Ontario Electrical Safety Code 2012 and all bulletins, Canada Labour Code Parts IV and VI and applicable local codes and regulations.

- Require CSA certification on equipment.
- Specify applicable standards for equipment, i.e., EEMAC, CSA, ULC, ASTM, NFPA, ANSI, etc.
- Correctional Service Canada Technical Criteria Document.
- The following Correctional Service Canada specifications:

CSC/DTE 80027 Issue 3	General Specification for Fixed Point Security Alarm for use in Federal Correctional Institutions.
CSC/DTE 77041 Issue 7	Statement of Work for Electronic Systems for the Correctional Service of Canada Institutions.
CSC/DTE 80006 Issue 6	Quality Control Specifications for the installation of Electronic Systems in Federal Correctional Institutions.
CSC/DTE 77013 Issue 4	Functional Specification for a closed circuit television system for use in Correctional Institutions.
DTE-02:02	Monochrome, Charged-Coupled Device (CCD) closed Circuit Television Camera.
DTE-02:03	Color, Charged-Coupled Device (CCD) closed Circuit Television Camera.
CSC/DTE 77018 Issue 4	Functional Specification for an Inmate Cell Call System for use in Federal Correctional Institutions.

10C.3 Materials and Equipment

Require Canadian products where economically feasible. Avoid specifying trade names and manufacturer's catalogue numbers.

Specify that within 30 days after tender award the Contractor submits for approval of the Departmental Representative, 5 complete lists of all materials and equipment that he intends to use in the Contract.

10C.4 Fees and Permits

Specify that the Contractor pay fees and obtain permits as required by authorities having jurisdiction.

10C.5 Nameplates

For major equipment specify plastic white on black sandwich type nameplates be attached with metal screws; letters to be minimum 10 mm high.

Use plastic nameplates (adhesive-applied) for receptacle and switch cover plates in laboratories and other work areas.

Provide the Contractor with coordinated nameplate titles.

10C.6 Poke Through Wiring

Electrical power to any floor area is to be supplied from electrical panels on that floor to avoid the use of "poke through" wiring.

10C.7 Transformer

Dry type transformers are preferred for Types primary voltages of 5 kV or lower where insulation, coordination and protection satisfactory to the Power Supply Authority can be obtained. Provide lightning arrestors.

Liquid cooled transformers are preferable above 5 kV although dry type may be used if approved by the Power Authority. Check BIL requirements.

Establish transformer noise levels which will not cause interference in working areas.

Specify standards to establish quality, tests and performance.

10C.8 Capacity of Electrical Service

Allow for 100% lighting load plus an appropriate demand factor on the remaining load based on operating characteristics.

The main service should provide for minimum 50% expansion.

10C.9 Transformer Vaults

Allow for future expansion.

Provide an independent ventilation system (gravity where possible) with intake and exhaust direct to the outside.

10C.10 Distribution Levels

Submit for Departmental approval a study of load requirements taking into account the overall plan.

120/240 volt power may be required to serve specific items of equipment.

A 208Y/120 volt, three-phase, four-wire system for lighting, receptacles and power is usually satisfactory for smaller buildings.

From the load and type of building make an economic study to determine if the use of a 600/347 volt system is warranted.

10C.11 Panelboards

Use circuit breaker type panelboards for motors, power equipment and lighting.

Circuit breakers to be of the bolt-on type. Multipole breakers to have single handle. Tie-bars not allowed.

Switch and fuse units may be used for high short circuit protection.

Specify standards to establish quality, tests and performance.

Mains or bussing to be made of copper.

Specify that each circuit shall be clearly labeled in a typewritten directory with a clear plastic cover.

Branch circuit panelboards to be fitted with lock type doors.

Specify minimum interrupting capacity rating.

Include a minimum of 20% spare breakers, and in laboratory and workshop areas provide space for 30% more.

Recessed panelboards should have additional spare, empty conduits extending to ceiling spaces. Comply with PWGSC Advisory Notice on Counterfeit-Labelled Moulded Case Circuit Breakers issued June 28, 2012.

10C.12 Wiring Methods

Specify that rigid steel conduit be used for panel feeders, for 600 volt equipment, and in other locations required by the Canadian Electrical Code and local regulations.

PVC or FRE conduit may be used for underground work. Conduit embedded in concrete must not be aluminum.

Electrical metallic tubing, EMT, may be used in locations approved by the Canadian Electrical Code and local regulations. Provide insulated green ground conductor in EMT conduits.

For motors and equipment subject to vibrations or movement provide flexible connections of liquid-tight flexible metal conduit.

Specify conduits shall be installed neatly with adequate bracing and clearances from adjacent equipment, and maintaining watertight penetration of walls and floors.

Wire size shall be No. 12 AWG minimum for power or lighting circuits. Minimum conduit size for power and lighting circuits shall be 20 mm dia.

Conductors shall be copper.

Conceal conduit and wiring in finished areas.

Permanent tags should be provided to feeders at pull and junction boxes.

10C.13 Ceiling Distribution

In the ceiling space of office areas install a system of duplex receptacles to provide power to power poles. Minimum of 3 duplex receptacles to be placed on a grid of 3 m x 3 m. Connect no more than 6 duplex receptacles to a circuit.

Evaluate the flexibility and economics of providing a system of empty conduits to facilitate the distribution of telephone and telecommunications cables, or the installation of a cable tray system with cables approved for use in return air plenum.

Evaluate the versatility, convenience, technical and economic performance of available ceiling wiring systems, including the use of metal raceway and plug-in distribution system.

10C.14 Equipment Connections

Indicate on the working drawings wiring for motors, control equipment and other electrical equipment installed under other Divisions. Do not include low voltage (below 50 volts) wiring.

Extend wiring to equipment furnished by the Department.

10C.15 Switches and Receptacles

Switches for lighting to be specification grade AC rated 15/20 ampere, 120/347 volts, ganged where possible and mounted at 1400 mm centre from finished floor.

Receptacles to be specification grade U-ground type, triple wiping contacts, rated 15 A, 125 volt, mounted 300 mm above finished floor.

In lunch room provide above the counter two 15 A, 125 V duplex receptacles; each to be split wired and with a pilot light and switch.

In laboratory and shop areas:

- In areas where benches or counter tops may be located receptacles not part of the furniture should be mounted 1.0 m above the floor and spaced 1.5 m apart.
- Use a minimum of one 30 A, 240 volt receptacle per laboratory.
- Connect not more than 2 duplex receptacles to a circuit for bench receptacles.

Ratings of other receptacles as indicated or required.

10C.16 Corrosion Resistant Finishes

Cover plates, surface-mounted outlet boxes, etc, located in areas where corrosive materials may be used must have suitable corrosion resistance. In laboratories, ensure that finishes on electrical equipment cover plates and surface mounted outlet boxes match the finishes on mechanical fittings.

10C.17 Motor Controls

Co-ordinate control sequences to provide starters and other auxiliary control equipment with the proper characteristics and features to obtain the performance intended.

Provide disconnect switches, starters and auxiliary control equipment which are not an integral part of packaged units described in equipment specifications but which are required for performance and sequence of operation of equipment specified under other Divisions.

Motors 400 W and over are to be three-phase.

Check that the voltage drop due to motor starting is within limits acceptable to the local utility. If required, use a reduced- voltage starter.

Provide motors with thermal-overload protection of the manual reset type. Built-in overloads in the motor are not acceptable. Specify that protection be co-ordinated with motor characteristics.

Single phase motors to be controlled by manual starters and not by tumbler switches.

Motor starters are not to be supplied from lighting panelboards if at all possible.

Automatic-control devices such as thermostats, floats or pressure switches may control the starting and stopping of motors directly, if designed and rated for that purpose, otherwise use a magnetic starter.

When a manual-automatic operation is required, use a "Manual-off-Automatic" selector switch. Connect the selector switch so that only the normal automatic regulating control devices will be bypassed when the switch is in manual position. Connect safety control devices, such as low or high pressure cutouts, high temperature cutouts, motor overload, etc, in the control circuit in both the Manual and Automatic positions of the selector switch.

For three-phase motor starters provide:

- Magnetically operated motor starter.
- Fused control transformer for all 110 volt control.
- Manual-off-Automatic selector switch where remote control is used.
- Preferred: combination starters. Acceptable: starters with separate disconnect devices.
- Motor starter disconnecting devices to be manually operated and to be load-break fused switches or air circuit breakers.

Control devices in individual special purpose enclosures should be mounted in groups.

Co-ordinate all motor controls with the Mechanical Consultant.

10C.18 Motor Control Centers

Use motor control centers where they provide an economical and practical grouping of controls. Centres should be free-standing structures. Use combination starters. Mount centres on continuous mounting channels on raised concrete pads. Wall mount type may be used for groups of up to four starters. Identify

each circuit by a black laminated plastic nameplate with white letters. Specify control centres as per EEMAC Standard for class and type.

10C.19 Motor Equipment Feeders

In open equipment areas consider the advantages of running motor equipment feeders from overhead rather than up through floor slabs.

10C.20 Telephone and Data Communication Systems

Provide an empty conduit system for the telephone and data communication systems.

10C.21 Intercommunication Systems

Provide an intercom system or empty conduit system only for an intercom system. Submit proposed layout at the Design Stage Submission.

10C.22 Clocks

Provide manual reset clocks and clock outlets in strategic areas such as main lobbies, corridors, general offices and conference rooms. Use an automatically supervised clock system in large buildings where economically justified.

10C.23 Fire Alarm System

General: Provide a fire alarm system in accordance with CSC Technical Criteria, the National Building Code and Treasury Board Personnel Management Manual, Occupational Safety and Health, Chapter 3-4 Standards for Fire Alarm Systems. Installation to CAN/ULC-S524-06. Verification of Alarm System to CAN/ULC-S537-04. Inspection and Testing of Alarm System to CAN/ULC-S537-04.

Fire alarm system to be compatible with the existing fire alarm system of the Institution. Submit cost comparison with preliminary layout at concept stage submission.

10C.24 Standby Power

SPEC NOTE: If a standby electrical generating set is required provide specific requirements here.

Provide a standby electrical generating set to supply emergency power for 12 hours minimum.

Emergency power supply shall be in accordance with CSA-C282-09, Emergency Electrical Power Supply for Buildings.

Enclose generator room with non-combustible materials having a 2 hour fire rating and by Underwriters Laboratories labeled 1-1/2 hour fire rated doors.

Install diesel engine in accordance with the requirements of the NFPA 37-2010, Standard for the Installation and Use of Stationary Combustion Engines and Gas Turbines.

Fuel supply and piping system is to be in accordance with National Fire Code of Canada, NFC 2010.

Standby lighting, power panels and circuits shall be provided for future connection to standby generator even if generator is not required at the design stage.

Receptacles connected to emergency system to be colour coded red for ready identification.

10C.25 Lighting General

Lighting systems to be designed to provide the required illumination levels with ease of luminaire relocation, lighting control and lighting maintenance with no damage occurring to components. Refer to PWGSC Office Lighting Design Standard & Application Guidelines, April 2012, for detailed information not contained in this section.

Ceiling surfaces to have a 80% minimum reflectance, a minimum NRC rating of 0.8 as per ASTM C423-09a test standard titled Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method.

Leave a minimum ceiling depth of 220 mm for ceiling recessed luminaire installation, unless otherwise determined by PWGSC.

Submit co-ordination drawings showing worst cases of ceiling space requirements and clearances for structural, mechanical and electrical components.

Provide the Department with detail calculations of light intensities to support the design.

10C.26 Lighting Levels

For each room or area determine the task performed and provide minimum maintained average illumination levels to meet Canada Labour Code and PWGSC Standard, IESNA recommended lighting levels and Tables 1 and 2 attached at the bottom of this section. These levels may be achieved by using non-uniform task ambient lighting layouts.

In cases where visual task description, furniture layout and office layout is unavailable, a minimum base illumination level of 750 lux average maintained over the entire work space is to be used.

Minimum to average illumination ratio to be 0.8 or better over the entire working area.

Provide local switching for enclosed rooms, e.g., private offices, conference rooms, training rooms, etc. For large areas provide local switching arrangements to conveniently control and conserve energy.

10C.27 Lighting Power Allowances

Conform to Model National Energy Code of Canada for Buildings 2011.

Whilst individual areas may deviate, the total power budget for lighting shall not exceed 22 watts per square meter, unless otherwise determined by PWGSC.

10C.28 Energy Consumption

Conform to ANSI/ASHRAE-90.1-2010(SI) Energy Standard for Buildings Except Low-Rise Residential Buildings.

10C.29 Luminaires

Fluorescent luminaires is preferred for indoor applications. Depending on the luminaire design, these luminaires shall be capable of accommodating up to 76 mm high metal louvers. The use of incandescent luminaires is limited to applications where questions of aesthetics, ultraviolet emission and lighting control requires it. Use compact fluorescent lamps where possible.

The use of HID luminaires is limited to support and utility spaces. Special dispensation of this use limitation can be obtained from the PWGSC Regional Electrical Engineer, provided the PWGSC requirements are met.

For outdoor applications the use of HID luminaires is preferred.

Illustrate all fixtures on the working drawings or standard details sheets and specify in detail the quality of material, construction and standard of performance required. Lenses to be ULC certified. Manufacturer's names and catalogue numbers are not allowed.

Fluorescent light fixtures should generally be 2 lamp. Specify either 300 mm or 500 mm width to suit ceiling modules for recessed installation.

10C.30 Ballasts

For fluorescent fixtures, use electronic type, rapid start, energy efficient, high power factor, with THD not exceeding 15, and sound rated A ballasts, having low current crest factor (less than 1.8) and wired to maximize energy efficiency. Electronic ballasts must be the type approved by PWGSC, Provincial and local Hydro authorities for energy efficiency and harmonic criteria and suitable for T-8 lamps.

HID's ballasts to meet or exceed the performance requirements of ANSI C82.4-2002 and to be suitable for the lamp and temperature specified.

10C.31 Lamps

Provide lamps of the best quality available. Generally, fluorescent lamps to be rapid start, 32 watts T8 3500 K. Incandescent lamps are to be for 130 volt operation. Specify initial and average lumens and rated life.

Specify 3500 K fluorescent lamps for new installations and major renovations.

10C.32 Lighting Controls

Manual controls:

- These may be line switches, low voltage switches, time switches, photocontrols and contactors. They should be located to maximize convenience and load control.
- Circuit breakers and light contactors are not to be used as localized manual lighting controls.

Microprocessor lighting controls:

- May be operated from a central master control unit, have field distributed control panels for zone control and local "on-off" controls. Programming functions can be assigned from the main console unit and/or assigned from field control panels. Local control can be achieved via a wall switch or telephone line.

10C.33 Emergency Lighting

Provide sufficient emergency lighting to permit a safe evacuation. Emergency lighting systems must be installed in accordance with Canada Labour Code Part IV, PWGSC Office Lighting Design Standard & Application Guidelines and CSC Technical Criteria.

Emergency battery lighting units must be performance certified by CSA as meeting CSA C22.2 No.141-10, Emergency Lighting Equipment.

10C.34 Exit Signs

Exit and paths of exit travel are to be indicated by electrically illuminated full panel LED bilingual exit signs. Size of lettering to meet the National Building Code and the local Fire Department and CAN/CSA-C860-11 and photoluminescent exit signs to CAN/ULC-S572-10. Connect electrified Exit Signs to emergency power system. If there is no provision for a standby generator, provide additional sockets and lamps and connect to emergency battery units.

10C.35 Heating

Co-ordinate heating with mechanical and architectural design. If electrical heating is used, ensure that the heating units specified provide the required wattage but do not exceed specified values. Integrate the heating controls with the total environmental aspect of the building.

10C.36 Security System

SPEC NOTE: Delete if not required.

Provide an alarm system against unauthorized entry of the premises and certain secure areas. Use door switches and alarms plus an electronic intrusion alarm system.

10C.37 Fixed Point Alarm System

[Provide a] [Modify existing] fixed point alarm system.

System must be compatible with the existing Pyrotronics system.

10C.38 CCTV System

[Provide a] [Modify existing] closed circuit television (CCTV) system.

10C.39 Cell Call System

[Provide a] [Modify existing] cell call system.

System must be compatible with the existing system.

10C.40 Illumination Levels Interior

TABLE 1

Illumination levels for interior office spaces, expressed as minimum acceptable values of maintained average horizontal lux levels over a) the working plane at each work station and b) at floor level for support spaces. Refer to IESNA Illuminance Surveying techniques for field measurements.

<u>Description of Task</u>	<u>Illumination (lx)</u> <u>10 lx = 1 dalx</u>
High Contrast Visual Task (4)(7)	500
Low Contrast Visual Task (5)(7)	1,000
VDT use (3)	300-500 (1)(2)
Filing work (6)	300
Circulation areas immediate to task areas	200
Public spaces, lounges, waiting areas	100-200
Notice Boards	300
Conference, training rooms	300-600 (1)
Corridors	100
Cafeteria - dining (9)	75
Cafeteria - food display, serving, cashier (9)	300
Food preparation (9)	500
Washrooms (8)	200
Powder room - grooming (8)	300
Stairways	100

Note

- (1) Provide flexible and/or dimmable lighting levels.
- (2) VDT task in conjunction with paper oriented task requiring greater illumination will conform to the requirements of the latter.
- (3) For guidance in lighting design for VDT spaces see publication PWGSC Design Guide "Office Lighting for Video Display Terminals".
- (4) Typically found in private offices, clerical work and accounting offices.
- (5) Typically found in drafting offices, mapping and artwork offices.
- (6) Typically visual tasks of high contrast and large size, or tasks of intermittent visual nature.
- (7) For general office spaces with undetermined task use 750 lux and a minimum to average ratio of 0.8. and is the actual sink top.
- (8) The reference plane is the actual sink top.
- (9) The reference plane is the actual table top, counter top or serving surface.

10C.41 Illumination Levels Exterior

TABLE 2

Illumination levels for exterior commercial office building spaces, expressed as minimum acceptable values of maintained average horizontal lux levels over usable area and at pavement level. Refer to IESNA Illuminance Survey techniques for field measurements.

<u>Description of Task Level</u>	<u>Illumination Level</u> <u>(lux) (1)</u>	<u>Uniformity Ratio</u>
<u>OPEN PARKING</u>		
Vehicular traffic low activity	10	4:1
Vehicular traffic, moderate-high activity	20	4:1
Vehicular intersections	30	3:1
Pedestrian walkways	10	N/A
Pedestrian walkways and vehicular intersection	30	3:1
Other area	10	N/A
<u>COVERED PARKING</u>		

General parking and pedestrian areas	50	4:1
Ramps and corners	100	3:1
Entrance area (Note 2)	500	N/A
BUILDING FLOODLIGHTING		
Building facade (vertical illumination)	100-300	4:1

Notes:

- (1) Provide photocell control with manual bypass.
- (2) The entrance area is defined as the portal or physical entrance to the covered portion of the parking structure and 15 m beyond the edge of the covering into the structure.

SECTION 11 CONSTRUCTION COST PLANNING AND CONTROL

11.1 Agreement Requirements

The Consultant Agreement requires the Consultant to monitor the project construction cost from commencement of his work through to post- construction evaluation of the completed project.

11.2 Cost Plan

The project cost plan is an application of cost criteria to the design, establishing a reasonable economic relationship between cost, quality, utility and appearance. It confirms the feasibility of producing the required accommodation within the construction cost limit, and provides a means of subsequent checking and control of overall expenditure.

The Cost Plan defines a certain amount of money for a certain quality of project in relation to the Basic Requirements.

11.3 Cost Control

Provide cost control services during the design and construction documents development and during Bid period and initiate corrective action to ensure that the estimated project construction cost remains within the approved construction cost limit/budget.

Advise the Departmental Representative immediately if changes are required due to revised client requirements, etc. impact the Construction Cost Limit. Do not proceed with these changes until authorized by the Departmental Representative.

11.4 Classes of Estimates - Definitions

CLASSES OF CONSTRUCTION COST ESTIMATES USED BY PWGSC

A- PWGSC and Treasury Board

In its dealings with Treasury Board on matters of project approvals, PWGSC uses two classes of estimates: indicative and substantive. The indicative estimate is the first one that is used (chronology-wise) and serves as the basis of Preliminary Project Approval by the Treasury Board. This estimate is also referred, within PWGSC, as a class "D" estimate. The substantive estimate is the second one that is used (again, chronology-wise) and serves as the basis of Effective Project Approval by the Treasury Board. This estimate is also referred, within PWGSC, as a class "B" estimate.

B- PWGSC and Consultant Agreements (for architects and engineers)

In its dealings with architects and engineers, PWGSC uses four classes of estimates: classes “D”, “C”, “B” and “A”. The Class “D” estimate is the first one that is used (chronology wise) and serves as the basis of the Construction Cost Estimate upon which an agreement between PWGSC and an architectural/engineering (A&E) consulting firm is entered into. The class “D” estimate is prepared by PWGSC and is used by the A&E firm during its performance of the ‘Analysis of the Project Brief’. (This estimate compares to the indicative estimate). The Class “C” estimate is prepared by the firm as part of the ‘Design Concept’. The Class “B” estimate is prepared by the firm as part of the ‘Design Development’. (This estimate compares to the substantive estimate).

The Class “A” estimate is prepared by the firm as part of the ‘Construction Documents, Pre-Bid Construction Cost Estimate and Project Schedule’. Definitions of classes “D”, “C”, “B” and “A” are as follows.

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

Class “D” Estimate

This estimate provides an indication of the total cost of the project, based on the user’s functional requirements to the degree known at the time. It is based on historical cost data for similar work, suitably adjusted for such factors as: effect of inflation, location, risk, quality, size, and time. All related factors affecting cost are considered to the extent possible. Such an estimate is strictly an indication (rough order of magnitude) of the project total cost and completion date. This estimate is used to establish the indicative estimate required by the Treasury Board for Preliminary Project Approval. Expected degree of accuracy: 20%.

Class “C” Estimate

This estimate is prepared at the end of the Design Concept stage and is based on updated user requirements, general description of the end built works, preliminary site information and existing conditions, production, and takes into consideration construction experience and market conditions as well as basic implementation logistics. It includes costs for design, documentation, and construction supervision. Expected degree of accuracy: 15%.

Class “B” Estimate

This estimate is prepared at the end of Preliminary Design and is based upon data (on cost, time and construction) of a level of precision as is typically available when the design of the major systems and sub-systems of the facility (including outline specifications and preliminary drawings and models), as well as when the results of all site or installation investigations are completed. This estimate also makes allowance for all costs resulting from the anticipated schedule, expected market conditions and suitable level of contingencies. This estimate is used to establish the substantive estimate required by Treasury Board for Effective Project Approval. Expected degree of accuracy: 10%.

Class “A” Estimate

This estimate is based on the “B” estimate which has been updated concurrently with the development of Construction Documents and is submitted as a final pre-bid estimate. It requires that project systems be

designed and specified to near completion, and is based on a realistic construction schedule and accurate labour and material costs. This is the final estimate before bid call or construction start. Typically, the total forecast is presented in elemental format and includes all actual associated fees and costs. Expected degree of accuracy: 5%.

The Cost Plan must be within the authorized budget. Intermediate and Final Estimates should remain within the Cost Plan, unless (changes due to revised client requirements, etc., are authorized by the Department. Advise the Department immediately if such changes occur.

11.5 Construction Cost Estimate Submissions

Provide the following Construction Cost Estimate Submissions:

- A Class "C" Estimate with each Design Concept Submission. The Consultant will also submit Class 'C' estimate for various options thus facilitating Departmental Representative's decision re: selecting the best options. The Consultant's submission will include variance analysis between the construction cost limit and Consultant's Class 'C' estimate with justification/substantiation of variances.
- A Class "B" Estimate with the Design Development and Outline Specifications of Design Systems Submission. The Consultant's submission will include variance analysis between the construction cost limit and Consultant's Class 'C' estimate with justification/substantiation of variances.
- An updated Class "B" Estimate with each submission of the updated Construction Documents at each stage of production specified, i.e. at 66% completion. Each submission will include variance analysis.
- A Class "A" Estimate with the 100% complete stage Construction Document.
- Each Class "C" Estimate shall consist of a completed Elemental Cost Analysis Form.
- Each Class "A" or "B" Estimate submission shall comprise of a completed Elemental Cost Analysis Form and the back-up sheets showing each Sub-Element Item of the work quantified and priced.

11.6 Cost Advice

Provide cost advice, during the design stage, between cost estimate submissions. Evaluate cost of various options, as required, to facilitate Department's decision.

Provide cost advice during the construction stage. Prepare cost estimates for every change based on Contemplated Change Notice and submit to Departmental Representatives. This will assist in deciding on whether to proceed with a change or to assess Contractor's quotation. Evaluate Contractor's quotation and recommend for approval by Departmental Representatives.

11.7 Cost Estimating Specialist

A Cost Consultant, employing Quantity Surveyors, shall provide the cost planning and estimating service for this project.

or

On staff or sub-consultant Quantity Surveyors or other Cost Estimating Specialists shall be used to perform the cost planning service for this project.

Provide details of the Cost Estimating Specialist's qualifications and experience for approval.

11.8 Cost Plan - Definition

The Cost Plan is the construction cost estimate approved for funding for this project. This is the Class "B" Estimate that is prepared from the Preliminary Drawings and Outline of Design Systems.

The Cost Plan defines a certain amount of money for a certain quality of building in relation to the Basic Floor Area Requirements.

11.9 Classes of Estimates - Definitions

- Classes of Estimates are defined as follows:

Class "D" Estimate: a cost estimate based upon unit costs derived from another building of similar type.

- Class "C" Estimate: a cost estimate based upon concept drawings, which represent one possible solution to the design of the project.

- Class "B" Estimate: a cost estimate based upon design development documents and an outline of design systems, or, 25%, 66%, to 95% complete Construction documents.

- Class "A" Estimate: a cost estimate based upon 100% complete construction documents, or, bid documents.

The Cost Plan must be within the authorized budget. Intermediate and Final Estimates should remain within the Cost Plan, unless (changes due to revised client requirements, etc., are authorized by the Department. Advise the Department immediately such changes occur.

11.10 Project Cost Analysis Form

Submit costing information on the standard Analysis Form Project Cost Analysis form (see Sample). Include as much detail as possible, including back-up sheets showing each Sub-Element Item of the work quantified and priced.

11.11 Outside Gross Area and Volume Measurement

To be measured in accordance with publication by the Canadian Institute of Quantity Surveyors "Measurement of Buildings by Area and Volume".

11.12 Construction Elements

The following clauses provide a brief explanation of the construction elements listed in the Project Cost form Elemental Analysis.

11.13 Element No. A1 Substructure

A11 Normal foundations: foundation walls, footings and associated items, below lowest floor level.

A12 Basement: excavation and backfill.

A13 Special foundations: foundation items of a costly or abnormal nature that are customarily kept separate from Elements 1.1 and 1.2. These include: dewatering, underpinning; shoring; sheet piling; caissons; waterproofing; extra cost for rock excavation.

11.14 Element No. A2 Structure

A21 Lowest floor: lowest structural floor construction, including supporting beds and layers.

A22 Upper floor: upper floor construction, including columns.

A23 Roof: structural roof construction, including columns.

11.15 Element No. A3 Exterior Cladding

A31 Walls below ground floor: exterior walls, from top of the normal foundations level to ground floor level. Basement walls may be taken down to footings, provided that this dimension is not more than 300 mm. below basement floor level.

A32 Walls above ground floor: exterior walls, from ground floor level to roof level. Include opening forming items. Parapet walls may be included, when materials are similar.

A33 Windows: windows and associated items, installed into openings in exterior walls.

A34 Roof covering: weatherproof roof finish and other items applied to roof structure, including parapets.

Exterior doors and screens: exterior doors, frames, hardware and associated items, together with glazed screens at entrances, installed into openings in exterior walls.

A35 Projections and recessed: items of work resulting from projections to, or recesses from, the general line of the exterior wall face. Typical items include: projecting balconies in their entirety; additional items resulting from recess balconies; canopies attached to the building; sunshades; soffits and framing to building overhangs; soffits, fascias and associated framing; eavestroughs and downpipes.

11.16 Element No. B1 Interior Partitions and Doors

B11 Permanent partitions: internal permanent walls and partitions, and the framing component of framed partitions. Include opening forming items.

Glazed partitions: interior glazed partitions and screens, including doors and frames of similar materials.

B12 Movable partitions: interior movable partitions, including doors and frames of similar materials and the same proprietary make.

B12 Interior doors: interior doors, frames, hardware and associated items, installed into openings in interior walls and partitions.

11.17 Element No. B2 Interior Finishes

B21 Floor finishes: floor finishes, other items and sleepers, applied on floor structures, in an interior space.

B22 Ceiling finishes: ceiling finishes, other items strapping and framing, applied to underside of, or beneath, structures, over an interior space.

B23 Wall finishes: wall finishes, other items and strapping, applied to exterior walls, interior walls, partitions or partition framing, in an interior space.

11.18 Element No. B3 Fittings and Equipment

B31 Fittings and fixtures: built in items of a general nature. These include: miscellaneous metal items; cabinet work; chalkboards; tackboards; toilet partitions; washroom accessories; directories; lockers; shelving; rolling shutters; loading dock devices.

B32 Equipment: built in items to provide a specialized service. These include: kitchen and cafeteria; laboratory; hospital; gymnasium; cranes and hoists.

B33 Elevators and escalators: elevators and B34 escalators and other similar devices to move people and materials within a building.

11.19 Element No. C1 Mechanical

C11 Plumbing and drainage: service systems to supply, heat, condition, distribute, use, collect and discharge water.

C12 Fire protection: service systems to provide built-in fire protection.

C13 Heating: service systems to provide heating for the building.

C13 Ventilating and air conditioning: service systems to supply, condition, distribute, ventilate and exhaust air.

C13 Refrigeration: service systems to provide refrigeration.

C13 Special equipment and piping: specialized service systems. These include: vacuum; compressed air; medical gases; fuel storage and supply; engine exhaust; central lubrication equipment; central liquid soap dispensing.

C14 Building controls: provision of controls to other service systems.

Mechanical overhead and profit: Mechanical Subcontractors's overhead and profit items, which include applicable General Conditions items.

11.20 Element No. C2 Electrical

C21 Service systems provided by the Electrical Subtrade, for a building.

C21 Electric power: service systems to generate, supply, distribute and ground electric power.

C21 Uninterrupted power: service systems to provide an uninterrupted supply of electrical power.

C22 Electric lighting: service systems to provide electric lighting.

C22 Electric heating: service systems to provide electric heating for the building.

C23 Fire alarm: service systems to provide fire detection and alarm.

C23 Communications: service systems to provide for sound, imaging and data communication by electronic means.

Electrical overhead and profit: Electrical Subcontractor's overhead and profit items, which include applicable General Condition items.

11.21 Element No. D1 Site Development

D11 Site work: development of the site, outside the building footprint area, of an Architectural or Structural nature.

D12 Mechanical site services: service systems of a Mechanical Subtrade type, including associated items, to the site, and up to one metre from the building perimeter.

D13 Electrical site services: service systems provided by the Electrical Subtrade, including associated items, to the site, and up to the exterior surface of the building.

11.22 Element No. D2 Ancillary Work

D21 Demolition: demolition of existing buildings on site to make way for new construction work.

D22 Alterations: alterations to an existing building, which will become part of, or all of, the new facility.

11.23 Element No. Z1 Overhead and Profit

Z11/Z12 General Contractor's overhead and profit items, which include General Condition items.

11.24 Element No. Z2 Contingencies

Z21 Design development contingency: an allowance to provide for changes to, and development of, the project design, from the date of the estimate to the 100% complete working drawings and specifications stage. This contingency does not include for a basic and substantial change to the project initiated by the building owner.

Z22 Escalation contingency: an allowance to provide for forecasted variation in cost due to passing of time, from the date of the estimate to the anticipated bid date.

Z23 Escalation-during Construction: Once the Contract is signed, no escalation is applied.

Z24 Permits/Approvals: Municipal Building Permit; TSSA approval; HVAC permit, etc.

Z25 Construction Contingency-during construction. Department's allowance to cover unforeseen conditions and changes occurring during construction.

Z26 LEED Gold: 12% of Construction cost.

11.25 Contact

For more information contact Mr. Spencer Jeyarajan 416-512-5945, fax 416-512-5535. Internet e-mail: spencer.jeyarajan@pwgsc-tpsgc.gc.ca

SECTION 12 ELEMENTAL COST ANALYSIS

Project Name: _____

Project Number: _____ Region: _____

Project Manager: _____

Consultants - Architectural: _____
Structural: _____
Mechanical: _____
Electrical: _____
Cost: _____

Design Stage Submission: _____
Class of Estimate: _____
Date of Cost Estimate Submission: _____
Basic Floor Area Requirements: _____
Gross Floor Area of New Construction: _____
Gross Floor Area of Renovations: _____

Project:		PUBLIC WORKS AND GOVERNMENT SERVICES CANADA				Report Date:		
Location:		Ontario Region				Page No.:		
Owner:		ELEMENTAL CONSTRUCTION COST SUMMARY				Bldg. Type:		
Consultant:						GFA		
Element	Ratio to GFA	Elemental Cost		Elemental Amount		Rate per m2		%
		Quantity	Unit Rate	Sub-Total	Total	Sub-Total	Total	
A SHELL								
A1 SUBSTRUCTURE								
A11 Foundations								
A12 Basement Excavation								
A13 Special Conditions								
A2 STRUCTURE								
A21 Lowest Floor Construction								
A22 Upper Floor Construction								
A23 Roof Construction								
A3 EXTERIOR ENCLOSURE								
A31 Walls Below Grade								
A32 Wall Above Grade								
A33 Windows & Entrances								
A34 Roof Coverings								
A35 Projections								
B INTERIORS								
B1 PARTITIONS & DOORS								
B11 Partitions								
B12 Doors								
B2 FINISHES								
B21 Floor Finishes								
B22 Ceiling Finishes								
B23 Wall Finishes								
B3 FITTINGS & EQUIPMENT								
B31 Fittings & Fixtures								
B32 Equipment								
B33 Elevators								
B34 Escalators								
C SERVICES								
C1 MECHANICAL								
C11 Plumbing & Drainage								
C12 Fire Protection								
C13 HVAC								
C14 Controls								
C2 ELECTRICAL								
C21 Services & Distribution								
C22 Lighting, Devices & Heating								
C23 Systems & Ancillaries								
NET BUILDING CONSTRUCTION ESTIMATED COST - EXCLUDING SITE								
D SITE & ANCILLARY WORK								
D1 SITE WORK								
D11 Site Development								
D12 Mechanical Site Services								
D13 Electrical Site Services								
D2 ANCILLARY WORK								
D21 Demolitions								
D22 Alterations								
NET BUILDING CONSTRUCTION ESTIMATED COST - INCLUDING SITE								
Z1 GENERAL REQUIREMENTS & FEE								
Z11 General Requirements								
Z12 Fee								
TOTAL CONSTRUCTION COST ESTIMATE - EXCLUDING CONTINGENCIES								
Z2 ALLOWANCES								
Z21 Design & Pricing Allowance								
Z22 Escalation-until tender call								
Z23 Escalation-during construction								
Z24 Permits/Approvals								
Z25 Construction Contingency								
Risk Factors								
TOTAL CONSTRUCTION COST ESTIMATE -INCLUDING CONTINGENCIES + RISK FACTORS								
GOODS & SERVICES TAX								

SECTION 13 TIME MANAGEMENT

13.1 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 - Ontario Region, presently utilizes Microsoft Project for its 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.

13.2 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.

13.3 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.

13.4 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.

13.5 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.

13.6 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 its 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 than 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.

13.7 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.

13.8 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.

13.9 Activity List

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

13.10 Milestone List

A Milestone List identifies all project Major and Minor milestones.

13.11 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.

13.12 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.

13.13 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.

13.14 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.

There 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)

13.15 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

13.16 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.

13.17 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)

13.18 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.

Work Breakdown Structure (indent tree):

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.

SECTION 14 DRAWING CONVERSION TO PORTABLE DOCUMENT FORMAT (PDF)

Issued by: Real Property Contracting Directorate

PWGSC

May 2005 Last Updated: 2012-06-20 by PWGSC - Ontario Region

Preface

Portable Document Format (PDF) is the standard format for documents that are posted on the Government Electronic Tendering System (GETS). Architectural and Engineering Consultants shall supply, in addition to native format files, electronic copies of drawings and specifications in PDF format for tendering Government of Canada (GoC) construction projects.

Create PDF drawing and specification files derived from the native software in which they were created. Scanning is only permissible in special circumstances, such as cases where no electronic version of a drawing being included in a construction tender package exists.

The information provided in this basic reference guide does not relieve consultants 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.

14.1 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. 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.

14.2 PDF Files Settings

Security:

Files must not be password protected and must allow printing.

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.

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.

Resolution:

Since the PDF files will be used for printing, it is recommended to select 600 dots per inch (dpi).

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.

14.3 Scanning

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

14.4 Final Checklist

When the drawing file has gone through the PDF conversion, open 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.

14.5 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.



SELECT - CONSULTANT PERFORMANCE EVALUATION REPORT FORM (CPERF)
SELECT - FORMULAIRE DU RAPPORT D'ÉVALUATION DU RENDEMENT DE L'EXPERT-CONSEIL (FREREC)

Contract Number - N° du contrat	Project Number - N° du projet	Client Reference Number - N° de référence du client
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Description of work - Description des travaux

Firm's Name - Nom de l'entreprise

Firm's Address - Adresse de l'entreprise

Project Manager - Gestionnaire de projet		Contract Information - Information sur le contrat	
Name - Nom		Contract Award Amount Montant du marché adjugé	Contract Award Date Date de l'adjudication du marché
Telephone No. - N° de téléphone	Fax No. - N° de télécopieur	Final Amount - Montant Final	Contract Completion Date Date d'achèvement du contrat
Cell No. - N° de cellulaire		No. of Amendments - Nombre de modifications	
E-Mail Address - Adresse électronique			

DESIGN - CONCEPTION	Category - Catégorie	Scale Echelle	Points Pointage
This is the rating of the quality of the design. Voici l'évaluation de la qualité de la conception.	Unacceptable - Inacceptable	0 - 5	<input type="text"/> <input type="checkbox"/> N/A S/O
	Not Satisfactory - Non satisfaisant	6 - 10	
	Satisfactory - Satisfaisant	11 - 16	
	Superior - Supérieur	17 - 20	
QUALITY OF RESULTS - QUALITÉ DES RÉSULTATS			
This is the rating of the quality of not only the final deliverable but also the deliverables throughout the various stages of the project. Voici l'évaluation de la qualité du produit final, mais aussi des produits à livrer aux diverses étapes du projet.	Unacceptable - Inacceptable	0 - 5	<input type="text"/> <input type="checkbox"/> N/A S/O
	Not Satisfactory - Non satisfaisant	6 - 10	
	Satisfactory - Satisfaisant	11 - 16	
	Superior - Supérieur	17 - 20	
MANAGEMENT - GESTION			
This is the rating of how the project was managed including the project delivery, and overall consultant services. Voici l'évaluation de la façon dont le projet a été géré, y compris l'exécution du projet et la prestation de l'ensemble des services d'expert-conseil.	Unacceptable - Inacceptable	0 - 5	<input type="text"/> <input type="checkbox"/> N/A S/O
	Not Satisfactory - Non satisfaisant	6 - 10	
	Satisfactory - Satisfaisant	11 - 16	
	Superior - Supérieur	17 - 20	
TIME - DÉLAIS			
This is the rating of time planning and schedule control. Voici l'évaluation de la planification du temps et du contrôle du calendrier.	Unacceptable - Inacceptable	0 - 5	<input type="text"/> <input type="checkbox"/> N/A S/O
	Late - En retard	6 - 10	
	On time - À temps	11 - 16	
	Ahead of Schedule - En avance sur le calendrier	17 - 20	
COST - COÛT			
This is the rating of the quality of cost planning and control during the life of the project. Voici l'évaluation de la qualité de la planification et du contrôle des coûts pendant la durée du projet.	Unacceptable - Inacceptable	0 - 5	<input type="text"/> <input type="checkbox"/> N/A S/O
	Not Satisfactory - Non satisfaisant	6 - 10	
	Satisfactory - Satisfaisant	11 - 16	
	Superior - Supérieur	17 - 20	
Total points Total du pointage			0 / 100

Comments - Commentaires

PWGSC TPSGC	Name - Nom	Title - Titre	Signature	Date
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INSTRUCTIONS AND ADDITIONAL INFORMATION (SELECT - Consultant Performance Evaluation Report)
INSTRUCTIONS ET RENSEIGNEMENTS SUPPLÉMENTAIRES (SELECT - Rapport d'évaluation du rendement de l'expert-conseil)

DESIGN - CONCEPTION

The following items should be considered:

- Understanding of the project objectives and constraints
- Thoroughness of and logical approach in problem analysis and exploration of alternatives
- Appropriateness of concept and sensitivity to context (physical and non-physical, image, site, geography, function, client, etc.)
- Functional/technical requirements: effectiveness of concept in providing for functional and technical requirements, including flexibility and expansion
- Aesthetic/spatial qualities and/or engineering "elegance"
- Functional performance for users: efficiency, safety, comfort and convenience, ease of operation and maintenance including engineering and architectural support elements/services
- Building science and engineering technology: equipment and construction systems, materials selections and detailing conducive to efficient construction and good life-cycle performance/economics; judgment in balancing between use of new technology vs. reliance on proven technology

Il faut tenir compte des éléments suivants :

- Compréhension des objectifs et des contraintes du projet
- Rigueur de l'analyse des problèmes et de l'approche logique utilisée et recherche de solutions de rechange
- Pertinence du concept et sensibilité au contexte (physique et non physique, image, site, géographie, fonction, client, etc.)
- Exigences fonctionnelles et techniques : efficacité du concept pour répondre aux exigences fonctionnelles et techniques, y compris la souplesse et l'expansion
- Qualités relatives à l'esthétique et à l'espace et/ou «élégance» technique
- Rendement fonctionnel pour les utilisateurs : efficacité, sécurité, confort, commodité, facilité de fonctionnement et d'entretien, y compris les éléments ou services de soutien à l'architecture et au génie
- Science du bâtiment et techniques de l'ingénieur : équipement et procédés de construction, sélection et description des matériaux favorisant la construction efficace et un bon rapport rendement/prix pendant la durée de vie; jugement pour équilibrer l'utilisation de nouvelles technologies et de technologies éprouvées

QUALITY OF RESULTS - QUALITÉS DES RÉSULTATS

The following items should be considered:

- Responsiveness to PWGSC/Client input
- Coverage of all aspects of process (all technical issues addressed, approval authorities, departmental procedures, etc.)
- Quality of studies including: comprehensive investigation work, logical analysis, firm and substantiated recommendations, clarity of presentation
- Quality of working documents (completeness, accuracy, co-ordination)
- Quality control on construction
- Contract administration - correctness, timeliness

Il faut tenir compte des éléments suivants :

- Réceptivité aux suggestions de TPSGC et du client
- Traitement de tous les aspects du processus (toutes les questions techniques, les pouvoirs d'approbation, les procédures ministérielles, etc.)
- Qualité des études, y compris : examen complet des travaux à effectuer, analyse logique, recommandations fermes et justifiées, clarté de la présentation
- Qualité des documents de travail (complets, exacts et coordonnés)
- Contrôle de la qualité relative à la construction
- Administration du contrat - exactitude, rapidité

MANAGEMENT - GESTION

The extent to which the firm takes charge of and effectively manages the work has a direct effect on the inputs required of PWGSC. Consideration should be given to:

- Delivery of a comprehensive, reliable and effective service in a responsive, orderly and "surprise free" manner
- Appropriate understanding of the Consultant role, within the context of PWGSC's operating environment and objectives and of the needs of the project
- Application of initiative, judgement and attentiveness in providing services
- Management of Consultant team: leadership, efficiency, fairness, and ensuring proper level of service
- Co-ordination of sub-consultants, if applicable
- Sensitivity of external factors: awareness of current conditions in the building industry and in the local community, and use of this information for the benefit of the project

La mesure dans laquelle l'entrepreneur assume efficacement la gestion des travaux a une incidence directe sur les services qu'on attend de TPSGC. Il faut tenir compte des éléments suivants :

- Prestation d'un service complet, fiable et efficace de façon souple, ordonnée et «sans surprise»
- Bonne compréhension du rôle de l'expert-conseil dans le contexte de l'environnement opérationnel de TPSGC et compte tenu des objectifs et des impératifs du projet
- Initiative, jugement et attention dans la fourniture des services
- Gestion de l'équipe d'experts-conseils : leadership, efficacité, équité et prestation d'un niveau de service adéquat
- Coordination du travail des sous-expert-conseil, s'il y a lieu
- Sensibilité aux facteurs externes : connaissance des conditions actuelles dans l'industrie du bâtiment et dans la collectivité locale et utilisation de cette connaissance dans l'intérêt du projet

TIME - DÉLAIS

For the purpose of evaluating the firm's time performance, consideration must be given to conditions beyond the firm's control including PWGSC / Contractor / Client Performance. The Project Manager is to consider whether the following was provided:

- Timely and accurate progress reporting
- On-schedule delivery of services in every stage

En ce qui a trait à l'évaluation du respect des délais par l'entreprise, il faut tenir compte des conditions indépendantes de la volonté de celle-ci, y compris du rendement de TPSGC, de l'entrepreneur et du client. Le gestionnaire de projet doit évaluer si les éléments suivants ont été fournis :

- Présentation de rapports d'avancement précis dans les délais prescrits
- Prestation des services dans les délais requis à toutes les étapes

COST - COÛT

The following items should be considered:

- Management of the design development within cost plan
- Timeliness of estimating and cost plan monitoring
- Final project estimate vs. Actual (established at award)
- Application of value engineering to design decisions, if applicable
- Appropriate balance of cost between estimate elements

Il faut tenir compte des éléments suivants :

- Gestion de l'élaboration de la conception dans le cadre du plan financier
- Rapidité de l'estimation et surveillance du respect du plan financier
- Estimation finale par rapport à l'estimation actuelle (faite au moment de l'attribution du contrat)
- Application de l'ingénierie de la valeur aux décisions de conception, s'il y a lieu
- Bon équilibre des coûts entre les éléments de l'estimation