



RETURN BIDS TO:

RETOURNER LES SOUMISSIONS À:

**Bid Receiving Public Works and Government
Services Canada/Réception des soumissions
Travaux publics et Services gouvernementaux
Canada**
Room 100,
167 Lombard Ave.
Winnipeg
Manitoba
R3B 0T6
Bid Fax: (204) 983-0338

**REQUEST FOR PROPOSAL
DEMANDE DE PROPOSITION**

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

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

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

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

Comments - Commentaires

| | |
|---|--|
| Title - Sujet Boiler Replacement | |
| Solicitation No. - N° de l'invitation ET025-181539/C | Date 2018-05-04 |
| Client Reference No. - N° de référence du client DFO-ET025-181539 | |
| GETS Reference No. - N° de référence de SEAG PW-\$PWZ-102-10544 | |
| File No. - N° de dossier PWZ-7-40137 (102) | CCC No./N° CCC - FMS No./N° VME |
| Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2018-05-24 | |
| Time Zone Fuseau horaire Central Daylight Saving Time CDT | |
| F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input type="checkbox"/> Other-Autre: <input type="checkbox"/> | |
| Address Enquiries to: - Adresser toutes questions à: Wiebe, Dallas | Buyer Id - Id de l'acheteur pwz102 |
| Telephone No. - N° de téléphone (204) 899-5257 () | FAX No. - N° de FAX (204) 983-7796 |
| Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: DEPARTMENT OF PUBLIC WORKS AND GOVERNMENT SERVICES CANADA MCTS BUILDING PO BOX 358 IQALUIT NU X0A 0T0 Canada | |

Instructions: See Herein

Instructions: Voir aux présentes

Vendor/Firm Name and Address

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

Issuing Office - Bureau de distribution

Public Works and Government Services Canada - Western
Region
Room 100,
167 Lombard Ave.
Winnipeg
Manitoba
R3B 0T6

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

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IMPORTANT NOTICE TO BIDDERS

THIS PROCUREMENT IS SUBJECT TO THE FOLLOWING COMPREHENSIVE LAND CLAIMS AGREEMENT: THE AGREEMENT BETWEEN THE INUIT OF THE NUNAVUT SETTLEMENT AREA AND HER MAJESTY THE QUEEN IN RIGHT OF CANADA

SUPPORT THE USE OF APPRENTICES

Through Canada's Economic Action Plan 2013, the Government of Canada proposes to support the employment of apprentices in federal construction and maintenance projects. Refer to SI05.

INTEGRITY PROVISIONS - BID

Changes have been made to the Integrity Provisions - Bid as of 2016-04-04. See GI01, Integrity Provision-Bid of the General Instructions for more information.

LISTING of SUBCONTRACTORS AND SUPPLIERS

As per IB12 you should provide using Appendix 4 at Bid closing a list of Subcontractors that have 20% or more of the tendered price value.

CONTRACTING AUTHORITY EMAIL:

dallas.wiebe@pwgsc-tpsgc.gc.ca

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SPECIAL INSTRUCTIONS TO BIDDERS (SI)

SI01 Integrity Provisions - Declaration of Convicted Offences

SI02 Opening of Bids

SI03 Insufficient Funding

SI04 Web Sites

SI05 Support the use of Apprentices

SI06 Site Visit

SI07 WCB & Safety Program

SI08 Nunavut Agreement

INTRODUCTION

INSTRUCTIONS TO BIDDERS

GLOSSARY OF TERMS

IB01 BID DOCUMENTS

IB02 INTEGRITY PROVISIONS - BID

IB03 CONFLICT OF INTEREST - UNFAIR ADVANTAGE

IB04 COMPLETION OF BID

IB05 IDENTITY OF LEGAL CAPACITY OF THE BIDDER

IB06 SUBMISSION OF BID

IB07 REVISION OF BIDS

IB08 CAPITAL DEVELOPMENT AND REDEVELOPMENT CHARGES

IB09 PRICE

IB10 LICENCING REQUIREMENTS

IB11 COMPOSITION OF TEAM

IB12 LISTING OF SUBCONTRACTOR AND SUPPLIERS

IB13 FINANCIAL STATEMENTS

IB14 LANGUAGE OF THE BID AND CONTRACT DOCUMENTS

IB15 REJECTION OF BID

IB16 ENQUIRIES DURING THE SOLICITATION PERIOD

IB17 BID SECURITY REQUIREMENTS

IB18 CONTRACT SECURITY REQUIREMENTS

IB19 APPLICABLE TAXES

IB20 COMPLIANCE WITH APPLICABLE LAWS

IB21 PERFORMANCE EVALUATION

IB22 BID COST

IB23 PROCUREMENT BUSINESS NUMBERS

IB24 BID VALIDITY PERIOD

IB25 NOTIFICATION

IB26 DEBRIEFING

SUBMISSION REQUIREMENTS AND EVALUATION (SRE's)

SECTION 1: BID FORM AND CONTENT REQUIREMENTS

SECTION 2: SELECTION

SECTION 3: TECHNICAL EVALUATION

SECTION 3: TECHNICAL EVALUATION TABLE - APPENDIX 1

SECTION 4: MANDATORY SUBMISSION REQUIREMENTS

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ANNEX A - BID PRICE FORM

APPENDIX 1 - INTEGRITY PROVISIONS – LIST OF NAMES

APPENDIX 2 – DEPARTMENTAL REPRESENTATIVE'S AUTHORITY

APPENDIX 3 - VOLUNTARY CERTIFICATION TO SUPPORT THE USE OF APPRENTICES

APPENDIX 4 - LISTING OF SUBCONTRACTORS

ANNEX B - TERMS AND CONDITIONS

ANNEX C - VOLUNTARY REPORT FOR APPRENTICES EMPLOYED DURING THE CONTRACT

ANNEX D - CERTIFICATE OF INSURANCE FORM

ANNEX E - TERMS OF REFERENCE

ANNEX F – GENERAL PROCEDURES & STANDARDS

SPECIAL INSTRUCTIONS TO BIDDERS (SI)

SI01 INTEGRITY PROVISIONS – DECLARATION OF CONVICTED OFFENCES

In accordance with the Ineligibility and Suspension Policy (<http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html>), the Proponent must provide **with its bid, as applicable**, to be given further consideration in the procurement process, the required documentation as per Instructions to Bidders (IB02), Integrity Provisions – Bid, section 3b.

SI02 OPENING OF BIDS

1. There will be no public opening at bid closing time.

SI03 INSUFFICIENT FUNDING

In the event that the lowest compliant bid exceeds the amount of funding allocated for the Work, Canada in its sole discretion may

- a. cancel the solicitation; or
- b. obtain additional funding and award the Contract to the Bidder submitting the lowest compliant bid; and/or
- c. negotiate a reduction in the bid price and/or scope of work of not more than 15% with the Bidder submitting the lowest compliant bid. Should an agreement satisfactory to Canada not be reached, Canada shall exercise option (a) or (b).

SI04 WEB SITES

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

Treasury Board Appendix L, Acceptable Bonding Companies <http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=14494§ion=text#appL>

Contracts Canada (Buy and Sell) <https://www.achatsetventes-buyandsell.gc.ca/eng/welcome>

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

Contractor Performance Evaluation Report (Form PWGSC-TPSGC 2913) <http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/documents/2913.pdf>

Bid Bond (form PWGSC-TPSGC 504) <http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/documents/504.pdf>

Performance Bond (form PWGSC-TPSGC 505) <http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/documents/505.pdf>

Labour and Material Payment Bond (form PWGWSC-TPSGC 506) <http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/documents/506.pdf>

Certificate of Insurance (form PWGSC-TPSGC 357) <http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/documents/357.pdf>

SACC Manual <https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>

Schedules of Wage Rates for Federal Construction Contracts
http://www.rhdcc-hrsdc.gc.ca/eng/labour/employment_standards/contracts/schedule/index.shtml

PWGSC, Industrial Security Services <Http://ssi-iss.tpsgc-pwgsc.gc.ca/index-eng.html>

PWGSC, Code of Conduct and Certifications

[Http://www.tpsgc-pwgsc.gc.ca/app-acq/cndt-cndct/index-eng.html](http://www.tpsgc-pwgsc.gc.ca/app-acq/cndt-cndct/index-eng.html)

Construction and Consultant Services Contract Administration Forms Real Property Contracting

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

Declaration Form

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

S105 PUBLIC WORKS AND GOVERNMENT SERVICES CANADA APPRENTICE PROCUREMENT INITIATIVE

1. To encourage employers to participate in apprenticeship training, Contractors bidding on construction and maintenance contracts by Public Works and Government Services Canada (PWGSC) are being asked to sign a voluntary certification, signaling their commitment to hire and train apprentices.
2. Canada is facing skills shortages across various sectors and regions, especially in the skilled trades. Equipping Canadians with skills and training is a shared responsibility. In Economic Action Plan (EAP) 2013, the Government of Canada made a commitment to support the use of apprentices in federal construction and maintenance contracts. Contractors have an important role in supporting apprentices through hiring and training and are encouraged to certify that they are providing opportunities to apprentices as part of doing business with the Government of Canada.
3. Through the Economic Action Plan 2013 and support for training programs, the Government of Canada is encouraging apprenticeships and careers in the skilled trades. In addition, the government offers a tax credit to employers to encourage them to hire apprentices. Information on this tax measure administered by the Canada Revenue Agency can be found at: www.cra-arc.gc.ca. Employers are also encouraged to find out what additional information and supports are available from their respective provincial or territorial jurisdiction.
4. Signed certifications (Appendix 3) will be used to better understand contractor use of apprentices on Government of Canada maintenance and construction contracts and may inform future policy and program development.
5. The Contractor hereby certifies the following:

In order to help meet demand for skilled trades people, the Contractor agrees to use, and require its subcontractors to use, reasonable commercial efforts to hire and train registered apprentices, to strive to fully utilize allowable apprenticeship ratios * and to respect any hiring requirements prescribed by provincial or territorial statutes.

The Contractor hereby consents to this information being collected and held by PWGSC, and Employment and Social Development Canada to support work to gather data on the hiring and training of apprentices in federal construction and maintenance contracts.

To support this initiative, a voluntary certification signaling the Contractor's commitment to hire and train apprentices is available at Appendix 3.

If you accept fill out and sign Appendix 3

* *The journey-person-apprentice ratio is defined as the number of qualified/certified journey persons that an employer must employ in a designated trade or occupation in order to be eligible to register an apprentice as determined by provincial/territorial (P/T) legislation, regulation, policy directive or by law issued by the responsible authority or agency.*

S106 SITE VISIT - NOT APPLICABLE**S107 MANDATORY HEALTH AND SAFETY****WCB AND SAFETY PROGRAM - for Work in the Northwest Territories/Nunavut**

1. The recommended Bidder shall provide to the Contracting Authority, prior to Contract award:
 - 1.1 a Workers' Safety and Compensation Claims Cost Summary - *Northwest Territories & Nunavut*, or equivalent documentation from another jurisdiction;

1.2 a Workers' Safety and Compensation Commission letter of good standing, also listing covered Directors, Principals, Proprietor(s) or Partners who will be or who are anticipated to be present on the work site(s), or equivalent documentation from another jurisdiction; and

1.3 a Certificate of Recognition (COR) or Registered Safety Plan (RSP). A health and safety policy and program, as required by other provincial/territorial Occupational Health and Safety Acts, will be acceptable in lieu of a COR or RSP.

2 The recommended Bidder shall deliver all of the above documents to the Contracting Authority on or before the date stated (usually 3-5 days after notification) by the Contracting Authority. Failure to comply with the request may result in the bid being declared non-compliant.

Exemption to Generic Safety Programs (*Northwest Territories & Nunavut Territory only*) - Contractors having ten (10) or less employees do not require a written program. However, evidence of a system to manage health and safety remains a requirement.

SI08 NUNAVUT AGREEMENT

In this requirement, it is not mandatory for Bidders to include the Inuit Benefit Plan (IBP) as part of their proposal. This procurement is subject to the Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada

Bidders are requested to maximize Inuit employment, subcontracting and on-the-job training opportunities, and involve local, regional and Inuit businesses, in carrying out the work under this project.

The Nunavut Agreement contains a provision requiring the inclusion of socio-economic bid criteria in the solicitation document, when practicable and consistent with sound procurement management principles. These socio-economic bid criteria are often referred to as Inuit Benefits Criteria, and bidders propose Inuit benefits in their bid submission via an Inuit Benefits Plan.

The provisions that apply to this procurement are contained in Part 6 – Bid Criteria of Article 24 – Government Contracts of the Nunavut Agreement. <http://nlca.tunngavik.com/>

24.6.1 Whenever practicable, and consistent with sound procurement management, and subject to Canada's international obligations, all of the following criteria, or as many as may be appropriate with respect to any particular contract, shall be included in the bid criteria established by the Government of Canada for the awarding of its government contracts in the Nunavut Settlement Area:

- (a) the existence of head offices, administrative offices or other facilities in the Nunavut Settlement Area;
- (b) the employment of Inuit labour, engagement of Inuit professional services, or use of suppliers that are Inuit or Inuit firms in carrying out the contracts; or
- (c) the undertaking of commitments, under the contract, with respect to on-the- job training or skills development for Inuit.

INUIT FIRM

"Inuit firm" means an entity which complies with the legal requirements to carry on business in the Nunavut Settlement Area, and which is

- (a) a limited company with at least 51% of the company's voting shares beneficially owned by Inuit,
- (b) a cooperative controlled by Inuit, or
- (c) an Inuk sole proprietorship or partnership;

"Inuit" shall be a person whose name appears on the most current Inuit Enrolment List created in accordance with the requirements of Article 35.2.1. of the Agreement Between The Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada.

INUIT BENEFITS PLAN (IBP)

Evaluation and Assessment of IBP Guarantee

For a bid to be assigned points for guarantees made in respect of any IBP bid criteria, **THE BIDDER MUST PROVIDE PROOF WITH THEIR BID** to demonstrate how they will meet the objective of each criterion. Bidders may use the attached GUARANTEE TABLES to supplement the IBP submission provided in their bid.

Proof of efforts and/or guarantees made by Bidders must include, but not be limited to, the names of persons or companies contacted and the nature of the undertakings at the time of the submission as applicable. Bidders must ensure their IBP documentation demonstrates sufficient evidence to assess the compliance of their bid against the criteria listed herein. It is the Bidders' responsibility to provide sufficient information in its bid to enable the Evaluation Committee to complete its evaluation. Bidders must include all reference material to be considered. Only material and/or documents submitted as part of the bid proposal will be considered. URL links to website will not be considered.

Canada reserves the right to verify any information provided in the IBP and that untrue statements may result in the tender being declared non-responsive.

INUIT BENEFITS PLAN CRITERIA

| ITEM | CATEGORY | Available Points | | | | | | | | | | | | |
|---|--|---------------------------------------|---|----------|----------|---|----------|----------|----------|-----------------------|---------------------------------------|---------------------------------------|---|-----|
| 1.0 | This procurement is subject to the Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada. Canada reserves the right to confirm validity of all declarations / guarantees. | | | | | | | | | | | | | |
| 1.1 | HEAD OFFICE: Bidders are requested to demonstrate the existence of head offices, staffed administrative offices or other staffed facilities in the area of the Nunavut Settlement Area. | /5 | | | | | | | | | | | | |
| 1.2 | <p>TRAINING: Bidders will be evaluated on their undertaking of a commitment with respect to delivery of on-the-job training and apprenticeship programs for Inuit from the Nunavut Settlement Area at no additional cost under this Contract. "Training and Apprenticeship" is considered delivered when the receiving individuals have acquired certifiable work skills. This is typically achieved through an independent third party certification process.</p> <p>To establish the training score, each responsive bid will be prorated against the bidder proposing the highest number of total Inuit training hours, with the proposal committing to the highest number of training hours receiving full points.</p> <table border="1"> <thead> <tr> <th></th> <th>Bidder 1</th> <th>Bidder 2</th> <th>Bidder 3</th> </tr> </thead> <tbody> <tr> <td>Total number of Inuit training hours proposed</td> <td>20 hours</td> <td>35 hours</td> <td>60 hours</td> </tr> <tr> <td>Calculation of points</td> <td>20/60 = 33% of total points available</td> <td>35/60 = 58% of total points available</td> <td>60/60 = 100 % of total points available</td> </tr> </tbody> </table> <p>*** Penalty Conditions will apply to this criterion</p> | | Bidder 1 | Bidder 2 | Bidder 3 | Total number of Inuit training hours proposed | 20 hours | 35 hours | 60 hours | Calculation of points | 20/60 = 33% of total points available | 35/60 = 58% of total points available | 60/60 = 100 % of total points available | /15 |
| | Bidder 1 | Bidder 2 | Bidder 3 | | | | | | | | | | | |
| Total number of Inuit training hours proposed | 20 hours | 35 hours | 60 hours | | | | | | | | | | | |
| Calculation of points | 20/60 = 33% of total points available | 35/60 = 58% of total points available | 60/60 = 100 % of total points available | | | | | | | | | | | |
| 1.3 | <p>LABOUR: The employment of onsite Inuit in carrying out the work of the contract.</p> <p>Bidder will be evaluated on their firm guarantee to use onsite Inuit from the Nunavut Settlement Area in carrying out the work. The percentages identified below relate specifically to onsite labour hours regardless of whether they are Prime Contractor staff and/or Sub-contractor staff.</p> <p>Percentages should be supported by a list of specific positions that may or will be staffed by onsite Inuit. Inuit employment will be confirmed during activities based on supporting documentation provided by the Contractor and Departmental Representative if applicable.</p> | /40 | | | | | | | | | | | | |

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0-100% of total labour hours = 0-40 points. Points will be assigned based on a percentage % of the total Points available:
___ % x total points available

Example:

Bidder guarantees 65% of labor hours will be Inuit = 65% of total points (40)

65 % x 40 = 26 points

NOTE:

Bidder must demonstrate how they will meet their Labor %. Simply indicating a “%” commitment is not sufficient to achieve points. Your score will be adjusted in accordance with your backup documentation

*** Penalties will apply to this criterion.

| | | |
|------------|---|--------------------|
| <p>1.4</p> | <p>SUB-CONTRACTORS/SUPPLIERS: The use of sub-contractors or suppliers that are Inuit in carrying out the contract. Bidder will be evaluated on their firm guarantee to use Inuit Sub-Contractors for services or the procurement of supplies and equipment from Inuit from the Nunavut Settlement Area associated with the Contract. Note: if the Prime Contractor is an Inuit owned business, the total dollar value of the Inuit contracting shall also include the contractor's share of the contract. <u>Bidders should provide their guarantee of Aboriginal / Inuit Subcontractors in accordance with the following:</u> Estimated value of Contract: \$ _____ - Less Non-Inuit subcontracting: \$ _____ = Total guaranteed for Inuit Subcontractors/Suppliers: \$ _____</p> <p>Points will be assigned to bidder as follows: Total guaranteed / Estimated value of contracting = <u> </u> a <u> </u> %</p> <p>Points will be assigned based on a percentage % of the total points available: <u> </u> a <u> </u> % x total points = assigned points 100 %</p> <p>Example: Estimated value of Contract: \$100,000 - Less Non-Inuit subcontracting: \$ 45,000 = Total guaranteed for Inuit Subcontractors/Suppliers: \$ 55,000</p> <p>\$55,000 / \$100,000 = 0.55 x 100 = 55%</p> <p><u> </u> 55 % x 40 = 22 points 100 %</p> <p>NOTE: Percentages MUST BE SUPPORTED by a list of specific subcontractor/suppliers that can be confirmed as Aboriginal/Inuit subcontractors. Verification of Aboriginal businesses will be made through:</p> <ul style="list-style-type: none"> • The Inuit Firm Registry Database http://inuitfirm.tunngavik.com/ <p>*** Penalties Conditions will apply to this criterion.</p> | <p>/40</p> |
| <p>1.5</p> | <p>TOTAL POINTS AVAILABLE</p> | <p>/100</p> |

BIDDER GUARANTEE AND CERTIFICATION

1. At time of bid submission - The tables below may be used by bidders to submit their proposals.
2. Information provided may be subject to verification.

TABLE 1 – Head Office

| Provide Current Business address |
|--|
| Bidders are requested to demonstrate the existence of head offices, staffed administrative offices or other staffed facilities in the Nunavut Settlement Area. |

TABLE 2 – Guarantee of Inuit Training

| Name & Position Title (Provide name(s) where possible) | Inuit Training Hours |
|---|-----------------------------|
| Bidders to include type of training and hours of training. | |

TABLE 3 – Guarantee of Onsite Inuit Labour Content

Total No. of onsite Inuit Employee Hours for this Contract = _____ %
Total No. of onsite Employee Hours for this Contract

| Name & Position Title (Provide name(s) where possible) | Onsite Inuit Employee Hours | Non-Inuit Employee Hours |
|---|--|-------------------------------------|
| Bidders to include the # of hours to be worked. | | |

TABLE 4 – Guarantee of Inuit Content for Sub-Contracting/Suppliers Content:

Total Estimated Cost for Supplies/Materials, Equip and Services Procured From Inuit Companies for This Contract

Total Bid Price = _____ %

| Name & Position Title (Provide name(s) where possible) | Inuit Company | Non-Inuit Company |
|---|--------------------------|------------------------------|
| Bidder to include the value of work to be Sub-Contracted. | | |

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Bidder Certification

The Bidder must submit the following certification if a guarantee of IBP is being provided, either at time of bid submission, or prior to contract award.

INUIT BENEFITS PLAN CERTIFICATION:

PRINT NAME

SIGNATURE

DATE

The bidder certifies its IBP guarantee for contracting submitted with its bid is accurate and complete.

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CONTRACTOR ACHIEVEMENT REPORTING AND CERTIFICATION

1. For successful Contractor only - If an IBP guarantee is provided as part of the bid, the successful Contractor must provide a summary of activities undertaken to meet the guarantees made as part of the IBP portion of their bid. The following table must be completed with supporting information (such as invoices, work logs, payroll receipts, etc.) by the contractor on a monthly basis.
2. The Contractor must indicate if any objectives were not met, identify why they were not, explain how the situation will be remedied and within what timeframe.
3. Information provided may be subject to verification.
4. The IBP Certification and IBP Achievement Reports must be submitted prior to final payment with details how the Contractors met its' IBP guarantee.
5. Failure to comply with the request to submit the certification and report within 15 business days may result in a full 1% penalty.

Return Reports to:

Contracting Authority Name: Dallas Wiebe

Email: dallas.wiebe@pwgsc-tpsgc.gc.ca

TABLE 1 – Head Office

| Provide Current Business address |
|--|
| Contractors are requested to demonstrate the existence of head offices, staffed administrative offices or other staffed facilities in the Nunavut Settlement Area. |

TABLE 2 – Achievement of Inuit Training

| Name & Position Title (Provide name(s) where possible) | Inuit Training Hours |
|---|----------------------|
| Contractor to include type of training, hours, and % complete | |

TABLE 3 – Achievement of Onsite Inuit Labour Content

Total No. of onsite Inuit Employee Hours for This Contract = _____ %
 Total No. Of Employee Hours for This Contract

| Name & Position Title (Provide name(s) where possible) | Onsite Inuit Employee Hours | Non-Inuit Employee Hours |
|---|-----------------------------|--------------------------|
| Contractor to include the # of hours worked | | |

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TABLE 4 – Achievement of Inuit Content for Sub-Contracting/Suppliers Content:

Total Cost For Supplies/Materials, Equipment and Services Procured From Inuit Companies for This Contract
Final Contract Value:

= _____ %

| Company Name | Inuit Company | Non-Inuit Company |
|--|---------------|-------------------|
| Contractor to include the value of Sub-Contracted work | | |

Contractor Certification

INUIT BENEFIT PLAN ACHIEVEMENT CERTIFICATION:

PRINT NAME

SIGNATURE

DATE

The Contractor certifies the information contained in the ACHIEVEMENT TABLES is accurate and complete.

INTRODUCTION

NOTE: THIS PROCUREMENT IS SUBJECT TO THE FOLLOWING COMPREHENSIVE LAND CLAIMS AGREEMENT: THE AGREEMENT BETWEEN THE INUIT OF THE NUNAVUT SETTLEMENT AREA AND HER MAJESTY THE QUEEN IN RIGHT OF CANADA

Public Works and Government Services Canada (PWGSC) is inviting qualified Design-Build (D-B) bidders to deliver the replacement of one (of two) existing Heating boilers and the physical protection for two outdoor condensing units at the MCTS (Marine Communications Traffic Services) Building in Iqaluit, Nunavut.

The objective of this RFP is to retain an individual Contractor or Joint Venture to provide the complete Design Build services for the replacement of one (of two) existing Heating boilers and the physical protection for two outdoor condensing units at the MCTS Building in Iqaluit, Nunavut. Utilizing a D-B service delivery methodology, a full range of professional consultant and contractor services will be required during both the design and construction phases of the project. The work consists of but is not limited to the design and construction of the work at the MCTS Building, as more fully described in the Terms of Reference.

This is a single phase selection process. This RFP Document sets out the project requirement, i.e., the particulars of the project itself and the broad scope of services required from the Contractor.

Based upon their analysis of the project requirements and the capability/capacity of their firm, bidders formulate bids for the service including their bid price.

The bidders describe their capabilities and proposed services in the "*Technical and Inuit Benefits Portion*" of the bid (Envelope One). The "*Bid Price Portion*" includes the total price and bid security which is submitted in a sealed envelope (envelope two).

The Technical and Inuit Benefits Portion of bids are evaluated by an Evaluation Board without knowledge of the Bid Price. Evaluation is based on a set of pre-established criterion, components and weight factors. Numerical scores are awarded at the completion of the evaluation.

Bid Price envelopes are then opened for the bids declared responsive. The Total Bid Price will be divided by the Technical and Inuit Benefits Evaluation Criterion points achieved to determine a price per point. The lowest price per point compliant bid will be recommended for award of Contract. In the event of a tie, the bidder that achieved the highest technical score will be selected.

NOTE: the Bid Price Form is to be submitted in a separate sealed envelope (Envelope Two) clearly marked "Bid Price Form".

IMPORTANT NOTICE: The new measures of the Integrity Provisions – Bid are contained in the solicitation document.

INSTRUCTIONS TO BIDDERS (2013-06-27)

Glossary of Terms:

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

Bidder Team: The team consisting of the prime Contractor, prime consultant, specialists and other firms or Subcontractors, including the Bidder, proposed by the Bidder to perform or furnish all the Services, Documents, Labour, Material and Plant for the execution of the Work.

Key Personnel: Staff of the Contractor, Subcontractors and specialists proposed to be assigned to this project.

Technical Rating: A rating assigned to the technical component of a proposal in the selection procedure.

Bidder: The entity (or in the case of a joint venture, the entities) submitting a bid. The successful Bidder will be the Contractor upon award of Contract.

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

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.

NOTE: Where "Proposal" appears in this bid solicitation and the resulting contract, this means "Bid" in the context of the Terms, Conditions and Instructions.

IB01 BID DOCUMENTS

1) The following are the bid documents:

- (a) Request for Proposal - Page 1;
- (b) Instructions to Bidders;
- (c) Clauses and Conditions identified in Contract documents;
- (d) Submission Requirements and Evaluation;
- (e) Price Form;
- (f) Terms of Reference; and
- (g) any amendments prior to solicitation closing

Submission of a bid constitutes acknowledgment that the Bidder has read and agrees to be bound by these documents.

IB02 INTEGRITY PROVISIONS – BID (2016-04-04)

1. The *Ineligibility and Suspension Policy* (the "Policy") in effect on the date the Bid Solicitation is issued, and all related Directives in effect on that date, are incorporated by reference into, and form a binding part of the bid solicitation. The Bidder must comply with the Policy and Directives, which can be found at *Ineligibility and Suspension Policy*.
2. Under the Policy, charges and convictions of certain offences against a Bidder, its affiliates or first tier subcontractors, and other circumstances, will or may result in a determination by Public Works and Government Services Canada (PWGSC) that the Bidder is ineligible to enter, or is suspended from entering into a contract with Canada. The list of ineligible and suspended Suppliers is contained in PWGSC's Integrity Database. The Policy describes how enquiries can be made regarding the ineligibility or suspension of Suppliers
3. In addition to all other information required in the bid solicitation, the Proponent must provide the following:
 - a. by the time stated in the Policy, all information required by the Policy described under the heading "Information to be Provided when Bidding, Contracting or Entering into a Real Property Agreement"; and
 - b. with its bid, a complete list of all foreign criminal charges and convictions pertaining to itself, its affiliates and its proposed first tier subcontractors that, to the best of its knowledge and belief, may be similar to one of the listed offences in the Policy. The list of foreign criminal charges and convictions must be submitted using an Integrity Declaration Form, which can be found at Declaration form for procurement
4. Subject to subsection 5, by submitting a bid in response to this bid solicitation, the Bidder certifies that:
 - a. it has read and understands the *Ineligibility and Suspension Policy*;

- b. it understands that certain domestic and foreign criminal charges and convictions, and other circumstances, as described in the Policy, will or may result in a determination of ineligibility or suspension under the Policy;
 - c. it is aware that Canada may request additional information, certifications, and validations from the Proponent or a third party for purposes of making a determination of ineligibility or suspension;
 - d. it has provided with its bid a complete list of all foreign criminal charges and convictions pertaining to itself, its affiliates and its proposed first tier subcontractors that, to the best of its knowledge and belief, may be similar to one of the listed offences in the Policy;
 - e. none of the domestic criminal offences, and other circumstances, described in the Policy that will or may result in a determination of ineligibility or suspension, apply to it, its affiliates and its proposed first tier subcontractors; and
 - f. it is not aware of a determination of ineligibility or suspension issued by PWGSC that applies to it.
5. Where a Bidder is unable to provide any of the certifications required by subsection 4, it must submit with its bid a completed Integrity Declaration Form, which can be found at [Declaration form for procurement](#) .
 6. Canada will declare non-responsive any bid in respect of which the information requested is incomplete or inaccurate, or in respect of which the information contained in a certification or declaration is found by Canada to be false or misleading in any respect. If Canada establishes after award of the Contract that the Bidder provided a false or misleading certification or declaration, Canada may terminate the Contract for default. Pursuant to the Policy, Canada may also determine the Bidder to be ineligible for award of a contract for providing a false or misleading certification or declaration.

IB03 CONFLICT OF INTEREST - UNFAIR ADVANTAGE

1. In order to protect the integrity of the procurement process, bidders are advised that Canada may reject a bid in the following circumstances:
 - a. if the Bidder, any of its subcontractors, 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 Bidder, any of its subcontractors, any of their respective employees or former employees had access to information related to the bid solicitation that was not available to other bidders and that would, in Canada's opinion, give or appear to give the Bidder an unfair advantage.
2. The experience acquired by a bidder 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 bidder remains however subject to the criteria established above.
3. Where Canada intends to reject a bid under this section, the Contracting Authority will inform the Bidder and provide the Bidder an opportunity to make representations before making a final decision. Bidders who are in doubt about a particular situation should contact the Contracting Authority before bid closing. By submitting a bid, the Bidder represents that it does not consider itself to be in conflict of interest nor to have an unfair advantage. The Bidder 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.

IB04 COMPLETION OF BID

1. The bid shall:
 - a) be submitted on the bid Form provided through the Government Electronic Tendering Service (GETS) or on a clear and legible reproduced copy of said Bid Form; the reproduced copy must be identical in every respect to the Bid Form provided through GETS;
 - b) not be delivered to the Bid Receiving Unit by means of facsimile transmission; facsimile copies of bids are not acceptable;

- c) be based on the bid documents listed above;
 - d) be correctly completed in all respects;
 - e) be signed by a duly authorized representative of the Bidder; and
 - f) be accompanied by
 - i) the bid security as specified herein; and
 - ii) any other document or documents specified elsewhere in the solicitation where it is stipulated that said documents are to accompany the bid.
2. Any alteration to the preprinted or pre-typed sections of the Bid Form, or any condition or qualification placed upon the bid shall be direct cause for disqualification. Alterations, corrections, changes or erasures made to statements or figures entered on the Bid Form by the Bidder shall be initialed by the person or persons signing the bid. Initials shall be original(s). Alterations, corrections, changes or erasures that are not initialed shall be deemed void and without effect.
3. Unless otherwise noted elsewhere in the Bid Documents, facsimile copies of bids are not acceptable.

IB05 IDENTITY OR LEGAL CAPACITY OF THE BIDDER

1. In order to confirm the authority of the person or persons signing the bid or to establish the legal capacity under which the Bidder proposes to enter into Contract, any Bidder who carries on business in other than its own personal name shall, if requested by Canada, provide satisfactory proof of
- (a) such signing authority; and
 - (b) the legal capacity under which it carries on business;
- prior to contract award. Proof of signing authority may be in the form of a certified copy of a resolution naming the signatory(ies) that is (are) authorized to sign this bid on behalf of the corporation or partnership. Proof of legal capacity may be in the form of a copy of the articles of incorporation or the registration of the business name of a sole proprietor or partnership

IB06 SUBMISSION OF BID (2014-03-01)

1. Bids are submitted following a "two envelope" procedure, in which bidders submit the "technical" components of their bid in one envelope and the proposed price, including bid security, in a second envelope. The Bid shall be addressed and submitted to the office designated on the Front Page of the "Request for Proposals" for the receipt of bids. The bid must be received on or before the date and time set for solicitation closing.
2. Unless otherwise specified in the Special Instructions to Bidders
- a. the bid shall be in Canadian currency;
 - b. the requirement does not offer exchange rate fluctuation risk mitigation. Requests for exchange rate fluctuation risk mitigation will not be considered. All bids including such provision will render the bid non-responsive.
3. Prior to submitting the bid, the Bidder shall ensure that the following information is clearly printed or typed in the appropriate spaces on the face of the bid return envelope:
- a. Solicitation Number
 - b. Description/Location
 - c. Name of Bidder
 - d. Closing Time/Date
4. Timely and correct delivery of bids is the sole responsibility of the Bidder.

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

IB07 REVISION OF BIDS

A bid submitted in accordance with these instructions may be revised by letter or facsimile provided the revision is received at the office designated for the receipt of bids, on or before the date and time set for the closing of bid. The facsimile must be on the Bidder's letterhead or bear a signature that identifies the Bidder. A revision to a unit price bid must clearly identify the change(s) in the unit price(s) and the specific item(s) to which each change applies. **Facsimile # (204) 983-0338**

IB08 CAPITAL DEVELOPMENT AND REDEVELOPMENT CHARGES

For the purposes of GC1.8 of the General Conditions, only fees or charges directly related to the processing and issue of building permits shall be included. Bidders shall not include any monies in the bid amount for special municipal development, redevelopment or other fees or charges which a municipal authority may seek as a prerequisite to the issuance of building permits.

IB09 PRICE

1. Unless specified otherwise elsewhere in the bid documents:
 - (a) the bid price shall be in Canadian currency, and
 - (b) the bid price shall not include any amount for the Goods and Services Tax (GST) or the Harmonized Sales Tax (HST) as may be applicable, and
 - (c) exchange rate fluctuation protection is not offered, and
 - (d) any request for exchange rate fluctuation protection will not be considered, and will render the bid non-responsive.

IB10 LICENSING REQUIREMENTS

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

IB11 COMPOSITION OF TEAM

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

IB12 LISTING OF SUBCONTRACTOR AND SUPPLIERS

1. Notwithstanding any list of Subcontractors that the Bidder may be required to submit as part of the bid, the Bidder shall, within 48 hours of receipt of a notice to do so, submit all information requested in the said notice including the names of Subcontractors and Suppliers for the part or parts of the Work listed. Failure to do so shall result in the disqualification of its bid.

IB13 FINANCIAL STATEMENTS

1. In order to confirm a Bidder's financial capability to perform the subject requirement, the Contracting Authority reserves the right to have access, during the bid evaluation, to current Bidder financial information. If requested, the financial information to be provided shall include, but not be limited to, the Bidder's most recent audited financial statements or financial statements certified by the Bidder's chief financial officer.
2. Should the Bidder provide the requested information to Canada in confidence while indicating that the disclosed information is confidential, then Canada will treat the information in a confidential manner as provided in the Access to Information Act.
3. In the event that a bid is found to be non-compliant on the basis that the Bidder is considered NOT to be financially capable of performing the subject requirement, official notification shall be provided to the Bidder.

IB14 LANGUAGE OF THE BID AND CONTRACT DOCUMENTS

1. The Contract documents shall be in the same official language (English or French) as the language of the bid submitted.

IB15 REJECTION OF BID (2014-09-25)

1. Canada may accept any bid, whether it is the lowest or not, or may reject any or all bids.
2. Without limiting the generality of paragraph 1) of GI11, Canada may reject a bid if any of the following circumstances is present:
 - a. the Bidder's bidding privileges are suspended or are in the process of being suspended;
 - b. the bidding privileges of any employee or subcontractor included as part of the bid are suspended or are in the process of being suspended, which suspension or pending suspension would render that employee or subcontractor ineligible to bid on the Work, or the portion of the Work the employee or subcontractor is to perform;
 - c. the Bidder 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 Bidder, any of its employees or any subcontractor included as part of its bid;
 - e. evidence satisfactory to Canada that based on past conduct or behavior, the Bidder, a sub-contractor or a person who is to perform the Work is unsuitable or has conducted himself/herself improperly;
 - f. with respect to current or prior transactions with Canada
 - i. Canada has exercised, or intends to exercise, the contractual remedy of taking the work out of the contractor's hands with respect to a contract with the Bidder, any of its employees or any subcontractor included as part of its bid; or
 - ii. Canada determines that the Bidder's performance on other contracts is sufficiently poor to jeopardize the successful completion of the requirement being bid on.
3. In assessing the Bidder's performance on other contracts pursuant to subparagraph 2)(f)(ii) of GI11, Canada may consider, but not be limited to, such matters as:
 - a. the quality of workmanship in performing the Work;
 - b. the timeliness of completion of the Work;

- c. the overall management of the Work and its effect on the level of effort demanded of the department and its representative; and
 - d. the completeness and effectiveness of the Contractor's safety program during the performance of the Work.
4. Without limiting the generality of paragraphs 1), 2) and 3) of GI11, Canada may reject any bid based on an unfavourable assessment of the
 - a. adequacy of the bid price to permit the work to be carried out and, in the case of a bid providing prices per unit, whether each such price reasonably reflects the cost of performing the part of the work to which that price applies;
 - b. Bidder's ability to provide the necessary management structure, skilled personnel, experience and equipment to perform competently the work under the Contract; and
 - c. Bidder's performance on other contracts.
5. Where Canada intends to reject a bid pursuant to a provision of paragraphs 1), 2), 3) or 4) of GI11, other than subparagraph 2)(a) of GI11, the contracting Authority will inform the Bidder and provide the Bidder ten (10) days within which to make representations, before making a final decision on the bid rejection.
6. Canada may waive informalities and minor irregularities in bids received if Canada determines that the variation of the bid from the exact requirements set out in the Bid Documents can be corrected or waived without being prejudicial to other Bidders.

IB16 ENQUIRIES DURING THE SOLICITATION PERIOD

1. Enquiries regarding the bid must be submitted in writing to the Contracting Officer named on the front page of the Request for Proposal as early as possible within the bidding period. Enquiries should be received no later than 7 calendar days prior to the date set for bid closing to allow sufficient time to provide a response. Enquiries received after that time may not result in an answer being provided.
2. To ensure consistency and quality of the information provided to bidders, the Contracting Officer will examine the content of the enquiry and will decide whether or not to issue an amendment to the Bid Documents.
3. All enquiries and other communications sent throughout the bidding period are to be directed ONLY to the Contracting Officer named on the front page of the Request for Proposal. Failure to comply with this requirement may result in the bid being declared non-responsive.

IB17 BID SECURITY REQUIREMENTS (2014-06-26)

1. The Bidder shall submit bid security with the bid in the form of a bid bond or a security deposit in an amount that is equal to not less than 10 percent of the bid amount. Applicable Taxes shall not be included when calculating the amount of any bid security that may be required. The maximum amount of bid security required with any bid is \$2,000,000.
2. A bid bond (form [PWGSC-TPSGC 504](#)) shall be in an approved form, properly completed, with original signatures and sealed by the approved bonding company whose bonds are acceptable to Canada either at the time of solicitation closing or as identified in Treasury Board Appendix L, [Acceptable Bonding Companies](#)
3. A security deposit shall be an original, properly completed, signed where required and be either
 - a. a bill of exchange, bank draft or money order made payable to the Receiver General for Canada and certified by an approved financial institution or drawn by an approved financial institution on itself; or
 - b. bonds of, or unconditionally guaranteed as to principal and interest by, the Government of Canada.
4. For the purposes of subparagraph 3. a. of IB17
 - a. a bill of exchange is an unconditional order in writing signed by the Bidder and addressed to an approved financial institution, requiring the said institution to pay, on demand, at a fixed or determinable future time a sum certain of money to, or to the order of, the Receiver General for Canada;

- b. if a bill of exchange, bank draft or money order is certified by or drawn on an institution or corporation other than a chartered bank, it must be accompanied by proof that the said institution or corporation meets at least one of the criteria described in subparagraph 4.c. of IB17, either by letter or by a stamped certification on the bill of exchange, bank draft or money; and
 - c. An approved financial institution is
 - i. a corporation or institution that is a member of the Canadian Payments Association as defined in the [Canadian Payments Act](#);
 - ii. a corporation that accepts deposits that are insured, to the maximum permitted by law, by the Canada Deposit Insurance Corporation or the "Autorité des marchés financiers";
 - iii. a corporation that accepts deposits from the public if repayment of the deposit is guaranteed by Her Majesty the Queen in right of a province;
 - iv. a corporation, association or federation incorporated or organized as a credit union or co-operative credit society that conforms to the requirements of a credit union which are more particularly described in paragraph 137(6) of the [Income Tax Act](#); or
 - v. Canada Post Corporation.
5. Bonds referred to in subparagraph 3. b. of IB17 shall be provided on the basis of their market value current at the date of solicitation closing, and shall be
- a. payable to bearer;
 - b. accompanied by a duly executed instrument of transfer of the bonds to the Receiver General for Canada in the form prescribed by the Domestic Bonds of Canada Regulations; or
 - c. registered as to principal or as to principal and interest in the name of the Receiver General for Canada pursuant to the Domestic Bonds of Canada Regulations.
6. As an alternative to a security deposit an irrevocable standby letter of credit is acceptable to Canada and the amount shall be determined in the same manner as a security deposit referred to above.
7. An irrevocable standby letter of credit referred to in paragraph 8) of IB17 shall
- a. be an arrangement, however named or described, whereby a financial institution (the "Issuer") acting at the request and on the instructions of a customer (the "Applicant") or on its own behalf,
 - i. is to make a payment to, or to the order of, the Receiver General for Canada as the beneficiary;
 - ii. is to accept and pay bills of exchange drawn by the Receiver General for Canada;
 - iii. authorizes another financial institution to effect such payment or accept and pay such bills of exchange; or
 - iv. authorizes another financial institution to negotiate against written demand(s) for payment provided that the terms and conditions of the letter of credit are complied with;
 - b. state the face amount which may be drawn against it;
 - c. state its expiry date;
 - d. provide for sight payment to the Receiver General for Canada by way of the financial institution's draft against presentation of a written demand for payment signed by the Departmental Representative identified in the letter of credit by his/her office;
 - e. provide that more than one written demand for payment may be presented subject to the sum of those demands not exceeding the face value of the letter of credit;
 - f. provide that it is subject to the International Chamber of Commerce (ICC) *Uniform Customs and Practice (UCP) for Documentary Credits, 2007 Revision*, ICC Publication No. 600, Pursuant to the ICC UCP, a credit is irrevocable even if there is no indication to that effect; and
 - g. be issued or confirmed, in either official language, by a financial institution which is a member of the Canadian Payments Association and is on the letterhead of the Issuer or Confirmer. The format is left to the discretion of the Issuer or Confirmer.

8. Bid security shall lapse or be returned as soon as practical following
- the solicitation closing date, for those Bidders submitting non-compliant bids; and
 - the administrative bid review, for those Bidders submitting compliant bids ranked fourth to last on the schedule of bids; and
 - the award of contract, for those Bidders submitting the second and third ranked bids; and
 - the receipt of contract security, for the successful Bidder; or
 - the cancellation of the solicitation, for all Bidders.
9. Notwithstanding the provisions of paragraph 8 of IB17 and provided more than three compliant bids have been received, if one or more of the bids ranked third to first is withdrawn or rejected for whatever reason then Canada reserves the right to hold the security of the next highest ranked compliant bid in order to retain the bid security of at least three valid and compliant bids.

IB18 CONTRACT SECURITY REQUIREMENTS

- The successful Bidder shall be required to provide Contract security in accordance with R2890 (2014-06-26) - Contract Security listed in the Terms of Agreement - A1 Contract Documents, within 14 days after receipt of a notice in writing that the bid was accepted by Canada.

IB19 APPLICABLE TAXES (2015-02-25)

"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.

IB20 COMPLIANCE WITH APPLICABLE LAWS

- By submission of a bid, the Bidder certifies that the Bidder has the legal capacity to enter into a contract and is in possession of all valid licenses, permits, registrations, certificates, declarations, filings, or other authorizations necessary to comply with all federal, provincial and municipal laws and regulations applicable to the submission of the bid and entry into any ensuing contract for the performance of the work.
- For the purpose of validating the certification in paragraph 20.1, a Bidder shall, if requested, provide a copy of every valid licence, permit, registration, certificate, declaration, filing or other authorization listed in the request, and shall provide such documentation within the time limit(s) set out in the request.
- Failure to comply with the requirements of paragraph 20.2 shall result in disqualification of the bid.

IB21 PERFORMANCE EVALUATION

- Bidders shall take note that the performance of the Contractor during and upon completion of the work shall be evaluated by Canada. The evaluation will be based on the quality of workmanship; timeliness of completion of the work; project management, contract management and management of health and safety. Should the Contractor's performance be considered unsatisfactory, the Contractor's bidding privileges on future work may be suspended indefinitely.

The form PWGSC-TPSGC 2913 (<http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/documents/2913.pdf>), SELECT- Contractor Performance Evaluation report form, is used to record the performance.

IB22 BID COSTS

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

IB23 PROCUREMENT BUSINESS NUMBERS

1. Bidders are required to have a Procurement Business Number (PBN) before Contract award. Bidders may register for a PBN in the Supplier Registration Information system on the Contracts Canada Web site. For non-Internet registration, Bidders may contact the nearest Supplier Registration Agent.

IB24 BID VALIDITY PERIOD

1. Canada reserves the right to seek an extension to the bid validity period beyond the **60 days** referred to therein. Upon notification in writing from Canada, the Bidders shall have the option to either accept or reject the proposed extension.
2. If the extension referred to in 24.1 is accepted, in writing, by all those who submitted responsive bids, then Canada shall continue immediately with the evaluation of the bids and its approvals processes.
3. If the extension referred to in 24.1 is not accepted, in writing, by all those who submitted responsive bids then Canada shall, at its sole discretion, either
 - a) continue to evaluate the bids of those who have accepted the proposed extension and seek the necessary approvals; or
 - b) cancel the RFP.
4. The provisions expressed herein do not in any manner limit Canada's rights in law or under Section 15 of the Instructions to Bidders.

IB25 NOTIFICATION

1. Canada normally expects to advise unsuccessful bidders in writing within one week after entering into a contractual arrangement with the successful Bidder.

IB26 DEBRIEFING

1. A debriefing will be provided, on request, only following entry by Canada into a contractual arrangement with the successful Bidder. Should a Bidder desire a debriefing, the Bidder should contact the person identified on the front page of the RFP within 15 working days of the notification of the results of the solicitation. The debriefing will include an outline of the strengths and weaknesses of the submission, referring to the evaluation criteria. The confidentiality of information relating to other submissions will be protected. The debriefing may be provided in writing, by telephone or in person.

Submission Requirements and Evaluation (SRE's)

SECTION 1 BID FORM AND CONTENT REQUIREMENTS

Canada is seeking bids specific to this project. The bid must demonstrate an analytical response to the specific nature of the project as set out in the Terms of Reference and Inuit Benefits Criteria.

The bid submission itself shall comprise two parts, *Part 1 – Technical and Inuit Benefits Portion* and *Part 2 – Bid Price Portion*.

Part 1 - "Technical Portion and Inuit Benefits Portion":

Should contain all the material necessary to fully represent the technical **and Inuit Benefits** content of the bid called for in the Request for Proposal document (including the Terms of Reference), in a concise, comprehensive manner. It is to be organized under the Technical and Inuit Benefits Evaluation Criteria detailed in the Submission Requirements and Evaluation (SRE) and Inuit Benefits Criteria sections of the Request For Proposal. These criteria are meant to permit a connected, logical presentation of the bid. While the Submission Requirements describe in general terms the intent and the information to be included under each criterion, they are not necessarily exhaustive. Bidders are responsible for fully presenting their bid.

No reference to "PRICE" is to be included in the "TECHNICAL and INUIT BENEFITS" portion of the submission

Part 2 - "Bid Price Portion":

Contains the Bid Price to perform all the proposed services. Complete one copy only of the Bid Price Form (Annex A), and enclose it together with the bid security in a separate sealed envelope clearly marked with the Bidder's name and the project identification. It is mandatory that the Bid Price Form be used for this purpose.

Provide **one (1) bound and signed original, four (4) bound copies and one (1) CD containing electronic copies in PDF format** of *Part 1 - Technical Portion*; and **one (1) signed original** of *Part 2 - Price Portion*, Bid Price form.

Bidders should not submit promotional materials as part of their submissions and are strongly encouraged;

- a) Not to submit information that is not required by this RFP;
- b) To be succinct in their submissions;
- c) To mark each page of their submissions with page numbers.

The maximum number of pages (including text and graphics) for the Technical Portion is ten (10) pages. Double-sided submissions are preferred. The following format should be implemented when preparing the bid.

One (1) 'page' means one side of a sheet of paper

Paper size - 8.5"x11" (metric equivalent A4)

Font size - minimum 10 pt. Times New Roman or equal on all documents including charts etc.

Margin widths - minimum 12 mm

11"x17" fold-out sheets for spreadsheets, schedules, Gantt Charts, WBS, organization charts etc. will be counted as two pages.

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

- Covering letter
- Table of Contents
- Front page of the RFP
- Front page of revision(s) to the RFP
- Bid Price Form (Annex A)
- Information provided in response to the Inuit Benefits Evaluation Criterion

- Section Dividers not containing text
- Bidder Identification, Certifications and Bid Security.

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

SECTION 2: BASIS OF SELECTION – LOWEST PRICE PER POINT

2.1 General

Canada will evaluate the bids received and such evaluation will be based on the following factors:

- a) Compliance with the terms and conditions of this solicitation;
- b) The price per point representing best value for a technically compliant bid to Canada for the Work;
- c) Assessment of all documentation and information for compliance with the Technical Evaluation Criterion and relevance to the Inuit Benefits Evaluation Criterion;

To be declared responsive, a bid must:

- a) Comply with all the requirements of the bid solicitation;
- b) Meet all mandatory technical evaluation criteria; and
- c) Obtain the required minimum **50 percent** for each of the three (3) Technical Evaluation Criterion categories and achieve a minimum **65 percent (58.5/90)** overall of the points for the Technical Evaluation Criteria which are subject to point rating. The technical rating is performed on a scale of **90** points.
- d) The Inuit Benefits rating is performed on a scale of **10** points which is included in the overall point total. The Inuit Benefits are not included in the compliance evaluation.

Bids not meeting (a) or (b) or (c) will be declared non-responsive. Neither the responsive bid that receives the highest number of points nor the one that proposed the lowest price will necessarily be accepted. The responsive bid with the lowest evaluated price per point will be recommended for award of a contract.

2.2 Financial Evaluation

The evaluated price will be as identified in "Annex A Bid Price Form" at Sub-clause 1.3

SECTION 3: TECHNICAL AND INUIT BENEFITS EVALUATION

Point Rated Criteria:

The *Part 1 - Technical and Inuit Benefits* parts of the bid will be evaluated by the Evaluation Board under the Technical and Inuit Benefits Evaluation Criterion listed in the Evaluation Criteria Table and as further explained in the Submission Requirements.

The information will be rated from 1 to 10 for each Technical and Inuit Benefits Evaluation Criterion element. The rating is then multiplied by the weight factor shown in the Evaluation Criteria Table to produce a weighted rating. The Technical and Inuit Benefits score is obtained by adding the sum of the weighted ratings.

EVALUATION CRITERIA TABLE

| Technical Evaluation Criterion | Weight Factor | Rating | Technical Points Rating |
|--|---------------|--------|-------------------------|
| 1. Design-Build Capability and Experience | | | |
| 1.1 Experience of Design-Build Contractor | 2 | 0-10 | 0-20 |
| 1.2 Experience of Design-Build Consultant Team | 2 | 0-10 | 0-20 |
| 1.3 Team Organization and Experience | 1 | 0-10 | 0-10 |
| 2. Project Delivery Management | | | |
| 2.1. Schedule | 1 | 0-10 | 0-10 |
| 3. Design Proposal | | | |
| 3.1 Pre-Design Services | 2 | 0-10 | 0-10 |
| 3.2 Design Services/Contractor Services | 1 | 0-10 | 0-15 |
| Total Technical Evaluation Rating | 9.0 | | 0-90 |

| Inuit Benefits Evaluation Criterion | | | Inuit Benefits Points Rating |
|--|------|-------|------------------------------|
| 1. Inuit Benefits | | | |
| 1.1 Head/admin office in Nunavut Settlement area | 0.05 | 0-5 | 0-5 |
| 1.2 On the job training/ skill development for Inuit | 0.15 | 0-1.5 | 0-1.5 |
| 1.3 Employment of Inuit labour | 0.4 | 0-4 | 0-4 |
| 1.4 Use of Inuit sub-contractors & procurement of supplies & equipment | 0.4 | 0-4 | 0-4 |
| Total Inuit Benefits Evaluation Rating | 1.0 | | 0-10 |

| | | | |
|---|-------------|--|---------------|
| Total Technical Evaluation Rating | 9.0 | | 0 - 90 |
| Total Inuit Benefits Evaluation Rating | 1.0 | | 0 -10 |
| Total Combined Technical & Inuit Benefits Evaluation Criterion Points Rating | 10.0 | | 0-100 |

Generic Technical 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 using the generic Technical Evaluation Table Appendix 1.

Submission Requirements

Category 1 - Design-Build Capability and Experience

1.1 Experience of Design-Build Contractor

1. Describe accomplishments, achievements and experience as the Design-Build Contractor on **one (1) similar** type project completed in the last **five (5) years** in terms of:

- a) Relevance to this project (scope, size and location)
- b) Budget management
- c) Schedule management

Only the first project listed will receive consideration and any others will receive none as though not included.

1.2 Experience of Design-Build Consultant team

1. Describe the accomplishments, achievements and experience of the Consultant team on **one (1) similar** type project completed in the last **five (5) years** in terms of:

- a) Relevance to this project (scope, size and location)
- b) Budget management
- c) Schedule management

Only the first project listed will receive consideration and any others will receive none as though not included.

1.3 Team Organization and Experience

Describe the team organization and experience, including at least the following information:

1. Description of overall team and roles and responsibilities as per list below:

- a) Project Manager
- b) Site Superintendent
- c) Structural Engineer
- d) Mechanical Engineer
- e) Electrical Engineer

Category 2 - Project Delivery Management

2.1. Schedule

1. Indicate project milestones/schedule as per discipline to complete the work

Category 3 - Design Proposal

Proposal must satisfy all requirements included in the ToR and as a minimum provide systems/components described in the ToR Include descriptions of the following:

3.1. Pre-design Service

Outline the plan to gather the required information to complete the pre-design report

3.2 Design Service/Contractor Services

Describe design concepts for main components, including the following:

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- a) Boiler Replacement/Chimney Verification: Modification
- b) Protection Structure for Condensing Unit as required
- c) Disposal of Replaced Boiler

TECHNICAL EVALUATION TABLE - APPENDIX 1 (attached)

SECTION 4: MANDATORY SUBMISSION REQUIREMENTS

To be considered compliant, a submission must meet all of the mandatory evaluation criteria. **Submissions not meeting all of the mandatory requirements will be given no further consideration. The Bidder must:**

1. Submit the bid to the Bid Receiving Unit prior to the closing date and time indicated on the front page of the solicitation document;
2. Complete and submit signed Bid Price Form (Annex A);
3. Provide Bid Security per IB17 of the Instructions to Bidders.

SUBMISSION REQUIREMENTS - CHECKLIST

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

Proposal - one (1) original, plus four (4) bound copies, plus one (1) CD

Note: the maximum number of pages (including text and graphics) to be submitted for the Technical Portion is 10 pages

Front page of RFP - acknowledged

Bid Price Form (in a separate envelope) - completed and signed

Front page(s) of any solicitation amendment(s) - acknowledged

Bid Security included with Bid Price Form

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ANNEX A: BID PRICE FORM

This Bid Price Form, duly completed, the signed front page of the RFP, and the requisite bid security shall be enclosed and sealed in an envelope provided by the Bidder, and shall be addressed and submitted to the office designated for the receipt of bids.

1.1 Project Identification

Project Name: Department of Fisheries and Oceans (DFO) MCTS Building Boiler Replacement and Condensing Unit Protection

Project Location: Iqaluit, Nunavut

Solicitation Number: ET025-181539/C

1.2 Business Name and Address of Bidder

Name: _____

Address: _____

Phone: () _____ Fax: () _____ PBN: _____

Email: _____

1.3 Offer

The Bidder, hereby offers to Canada to perform and complete the work for the above named project in accordance with the Scope of Work, at the place and in the manner set out therein for the Total Price (to be expressed in numbers only) of:

\$ _____ excluding applicable tax(es)

which consists of

.1 an Amount of \$ _____ excluding applicable tax(es),
for the design portion of the Work; +

.2 an Amount of \$ _____ excluding applicable tax(es),
for the construction portion of the Work.

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1.4 Time Based Fee Schedule For Design Changes

The following will NOT form part of the evaluation process:

Canada intends to use the following Rates quoted for additional Design Services that may be required from time to time. Canada reserves the right to refuse or renegotiate any Rate that Canada, in its sole discretion, deems to be excessive when compared to industry norms.

Principals - All inclusive hourly rate to be fixed for the duration of the Contract

| <i>Name</i> | <i>Hourly Rate</i> |
|-------------|--------------------|
| | \$..... |
| | \$..... |
| | \$..... |
| | \$..... |
| | \$..... |
| | \$..... |
| | \$..... |
| | \$..... |
| | \$..... |
| | \$..... |

Hourly Rate increases for staff are to be documented to PWGSC for approval. All key personnel are to be shown.

| <i>Staff / Position</i> | <i>Hourly Rate</i> |
|-------------------------|--------------------|
| | \$..... |
| | \$..... |
| | \$..... |
| | \$..... |
| | \$..... |
| | \$..... |
| | \$..... |
| | \$..... |
| | \$..... |
| | \$..... |
| | \$..... |

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1.5 Team Identification

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

Bidder (Design-Builder):

Name:

Key Individuals and provincial/territorial professional licensing status:

Key Subcontractors / Sub-consultants / Specialists:

Name:

Key Individuals and provincial/territorial professional licensing status:

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Key Subcontractors / Sub-consultants / Specialists:

Name:

Key Individuals and provincial/territorial professional licensing status:

Key Subcontractors / Sub-consultants / Specialists:

Name:

Key Individuals and provincial/territorial professional licensing status:

Key Subcontractors / Sub-consultants / Specialists:

Name:

Key Individuals and provincial/territorial professional licensing status:

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Key Subcontractors / Sub-consultants / Specialists:

Name:

Key Individuals and provincial/territorial professional licensing status:

Key Subcontractors / Sub-consultants / Specialists:

Name:

Key Individuals and provincial/territorial professional licensing status:

Key Subcontractors / Sub-consultants / Specialists:

Name:

Key Individuals and provincial/territorial professional licensing status:

END OF BID PRICE FORM

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APPENDIX 2 – DEPARTMENTAL REPRESENTATIVE'S AUTHORITY

TO BE PROVIDED AT CONTRACT AWARD

| | |
|----------------------------------|--|
| Contracting Authority is: | |
| Name: | |
| Title: | |
| Department: | |
| Division: | |
| Telephone: | |
| Fax: | |
| E-mail: | |

| | |
|---------------------------------|--------|
| Technical Authority is : | |
| Name: | |
| Title: | |
| Department: | |
| Division: | |
| Telephone: | Cell : |
| Fax: | |
| E-mail: | |

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APPENDIX 3 - VOLUNTARY CERTIFICATION TO SUPPORT THE USE OF APPRENTICES

Note; The contractor will be asked to fill out a report every six months or at project completion as per sample "Voluntary Reports for Apprentices Employed during the Contract" provided at Annex C.

Name: _____

Signature: _____

Company Name: _____

Company Legal Name: _____

Solicitation Number: _____

Number of company employees: _____

Number of apprentices planned to be working on this contract: _____

Trades of those apprentices:

APPENDIX 4 - LISTING OF SUBCONTRACTORS

- 1) In accordance with IB12 - Listing of Subcontractors and Suppliers of Instructions To Bidders, the Bidder should provide a list of Subcontractors with his Bid.
- 2) The Bidder should submit the list of Subcontractors and for any portion of the Work valued at 20% or greater of the submitted Bid Price.

| | Subcontractor | Division | Estimated value of work |
|----|---------------|----------|-------------------------|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |
| 6 | | | |
| 7 | | | |
| 8 | | | |
| 9 | | | |
| 10 | | | |
| 11 | | | |
| 12 | | | |
| 13 | | | |
| 14 | | | |
| 15 | | | |

ANNEX B: TERMS AND CONDITIONS**TERMS OF AGREEMENT**

A1 Contract Documents

A2 The Work

GENERAL CONDITIONS**GC1 GENERAL PROVISIONS (2015-07-09)**

- GC1.1 Interpretation
- GC1.2 Contract Documents
- GC1.3 Status of the Contractor
- GC1.4 Rights and Remedies
- GC1.5 Time of the Essence
- GC1.6 Indemnification by Contractor
- GC1.7 Indemnification by Canada
- GC1.8 Laws, Permits and Taxes
- GC1.9 Workers' Compensation
- GC1.10 National Security
- GC1.11 Public Ceremonies and Signs
- GC1.12 Conflict of Interest
- GC1.13 International Sanctions
- GC1.14 Certification - Contingency Fees
- GC1.15 Agreements and Amendments
- GC1.16 Unsuitable Workers
- GC1.17 Assignment
- GC1.18 Rights to Intellectual Property
- GC1.19 No Bribe
- GC1.20 Succession
- GC1.21 Code of Conduct and Certifications – Contract
- GC1.22 Performance evaluation: Contract

GC2 ADMINISTRATION OF THE CONTRACT (2015-02-25)

- GC2.1 Departmental Representative's Authority
- GC2.2 Interpretation of Contract
- GC2.3 Notices
- GC2.4 Site Meetings
- GC2.5 Review and Inspection of Work
- GC2.6 Superintendent
- GC2.7 Non-discrimination in Hiring and Employment of Labour
- GC2.8 Accounts and Audits

GC3 EXECUTION AND CONTROL OF THE WORK (2015-02-25)

- GC3.1 Progress Schedule
- GC3.2 Project Design and Role of the Designer
- GC3.3 Construction Safety
- GC3.4 Execution of the Work
- GC3.5 Material
- GC3.6 Subcontracting
- GC3.7 Construction by Other Contractors or Workers
- GC3.8 Labour and Fair wages
- GC3.9 Material, Plant and Real Property become Property of Canada
- GC3.10 Defective Work
- GC3.11 Use of the Work and Cleanup of Site
- GC3.12 Warranty and Rectification of Defects in Work

GC4 PROTECTIVE MEASURES - condition incorporated by reference**GC5 TERMS OF PAYMENT (2015-02-25)**

- GC5.1 Interpretation
- GC5.2 Amount Payable
- GC5.3 Increased or Decreased Costs
- GC5.4 Progress Payment
- GC5.5 Substantial Performance of the Work
- GC5.6 Final Completion
- GC5.7 Payment not Binding on Canada
- GC5.8 Claims and Obligations
- GC5.9 Right of Set-off
- GC5.10 Assessments and Damages for Late Completion
- GC5.11 Delay in Making Payment
- GC5.12 Interest on Settled Claims
- GC5.13 Return of Security Deposit

GC6 DELAYS AND CHANGES IN THE WORK (2013-04-25)

- GC6.1 Changes in the Work
- GC6.2 Changes in Subsurface Conditions
- GC6.3 Human Remains, Archaeological Remains and Items of Historical or Scientific Interest
- GC6.4 Determination of Price
- GC6.5 Delays and Extension of Time

GC7 DEFAULT, SUSPENSION OR TERMINATION OF CONTRACT (2008-05-12)

- GC7.1 Taking the Work out of the Contractor's Hands
- GC7.2 Suspension of Work
- GC7.3 Termination of Contract
- GC7.4 Security Deposit - Forfeiture or Return

Conditions incorporated by reference:**GC8 DISPUTE RESOLUTION****GC9 CONTRACT SECURITY****GC10 INSURANCE****ALLOWABLE COSTS FOR CONTRACT CHANGES UNDER GC6.4.1****SUPPLEMENTARY CONDITIONS**

- SC01 Payment for Design Changes and Revisions
- SC02 Professional Liability Insurance Requirements
- SC03 Insurance Terms
- SC04 Workplace Safety and Health
- SC05 Inuit Benefits Plan Incentive and Penalty Conditions

TERMS OF AGREEMENT

A1 CONTRACT DOCUMENTS

- 1) The Contractor understands and agrees that, upon acceptance of the offer by Canada
 - (a) a binding Contract shall be formed between Canada and the Contractor; and
 - (b) the contract documents forming the Contract shall be the following:
 - (i) the Front Page and these Terms of Agreement;
 - (ii) the Request for Proposal;
 - (iii) the Terms of Reference;
 - (iv) the terms, conditions, and clauses as amended, identified as:
 - a) the General Conditions;
 - b) the Supplementary Conditions, if any;
 - c) documents incorporated by reference as follows:
 - R2840D (2008-05-12) - (GC4) Protective Measures
 - R2880D (2016-01-28) - (GC8) Dispute Resolution – 100K to 5M – Construction Services
 - R2890D (2014-06-26) - (GC9) Contract Security
 - R2900D (2008-05-12) - (GC10) Insurance
 - R2950D (2015-02-25) - Allowable costs for contract changes under GC6.4.1
 - (v) the submission;
 - (vi) the Construction Documents;
 - (vii) any amendment incorporated into the solicitation documents before the date of the Contract; and
 - (viii) any amendment or variation of the contract documents that is made in accordance with the General Conditions.
 - (c) The documents identified by title, number and date above are incorporated by reference and are set out in the Standard Acquisition Clauses and Conditions (SACC) Manual, issued by Public Works and Government Services Canada (PWGSC). The SACC Manual is available on the PWGSC Website: <http://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/5/R>
- 2) The Contract documents shall be in the same official language (English or French) as the language of the bid submitted.

A2 THE WORK

- 1) The Design-Builder agrees
 - (a) to substantial completion within 28 weeks from the date of notification of acceptance of its proposal.

GENERAL CONDITIONS

GC1 GENERAL PROVISIONS

GC1.1 INTERPRETATION (2015-07-09)

The following is an interpretation of heading and references.

GC1.1.1 Headings and References

- 1) The headings in the contract documents form no part of the *Contract* but are inserted for convenience of reference only.
- 2) A reference made to a part of the *Contract* by means of numbers preceded by letters is a reference to the particular part of the *Contract* that is identified by that combination of letters and numbers and to any other part of the *Contract* referred to therein.
- 3) A reference to a paragraph or subparagraph followed by an identifying number is, unless specifically stated otherwise, a reference to the paragraph or subparagraph that forms part of the clause within which the reference is made.

GC1.1.2 Terminology

In the Contract, unless the context otherwise requires:

"Administrative Agreement"

is a negotiated agreement with the Minister of PWGS as provided for in the *Ineligibility and Suspension Policy*.

"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;

"Canada", "Crown" or "Her Majesty" means Her Majesty the Queen in right of Canada;

"Construction" means the performing or furnishing of all labour, Plant, Material, and other means of construction, other than Design Services, to complete the performance of the Work as required by the contract documents;

"Construction Documents" means the plans, drawings and specifications for Construction of the Work prepared by or on behalf of the Contractor and that are accepted and signed by Canada and the Contractor after the execution of the Contract;

"Contract" means the contract documents referred to as such therein and every other document specified or referred to in any of them as forming part of the contract, all as amended by agreement of the parties;

"Contract Amount" means the amount stipulated in the Contract;

"Contract Security" means any security given by the Contractor to Canada in accordance with the Contract;

"Contractor" means the person or entity contracting with Canada to provide or furnish all designs, professional services, Construction Documents, labour, Material and Plant for the execution of the Work, and includes the Contractor's authorized representative as designated in writing to the Departmental Representative;

"Certificate of Completion" means the certificate issued by Canada when the Work reaches Completion;

"Certificate of Measurement" means a certificate issued by Canada certifying the correctness of the final quantities, prices per unit and values of labour, Plant and Material performed, used and supplied by the Contractor for the construction of the part of the Work to which a Unit Price Arrangement applies;

"Certificate of Substantial Performance" means a certificate issued by Canada when the Work reaches Substantial Performance;

"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.

"Departmental Representative" means the person designated in the Contract, or by written notice to the Contractor, to act as the Departmental Representative for the purposes of the Contract, and includes a person, designated and authorized in writing by the Departmental Representative to the Contractor;

"Design Services" means the professional services for design and construction administration performed by the Designer, or consultants coordinated by the Designer, under the terms of the Contract;

"Designer" means the Architect, Professional Engineer or entity, licensed to practice in the province or territory of the Work, and forming the professional component of the Contractor to provide the Design Services and other services required under the terms of the Contract, and includes the Contractor's authorized representative as designated to Canada in writing.

"herein", "hereby", "hereof", "hereunder" and similar expressions refer to the Contract as a whole and not to any particular section or part thereof;

"Ineligibility" means a person not eligible to contract with Canada;

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"Lump Sum Arrangement" means that part of the Contract that prescribes a lump sum as payment for performance of the work to which it relates;

"Material" means all commodities, articles, machinery, equipment, fixtures and things required to be furnished in accordance with the Contract for incorporation into the Work;

"person" also includes, unless there is an express stipulation in the Contract to the contrary, any partnership, proprietorship, firm, joint venture, consortium or corporation;

"Plant" means all tools, implements, machinery, vehicles, structures, equipment, articles and things, other than Material or consumed in the performance of the Contract and tools customarily provided by a tradesperson in practicing a trade, that are necessary for the Construction of the Work;

"Project" means the total design and Construction for which the Contractor is responsible, including all Design Services and the Completion of the Work;

"Project Requirements" means the statement included in the Request for Proposal detailing the technical and other requirements of Canada which are to be met by the successful Bidder, and which are to be addressed in the Bid;

"Bid" means the bid of the Contractor submitted in response to a Request for Proposal:

"Request for Proposal" means the documentation issued by Canada requesting the submission of bids and detailing the Project Requirements;

"Subcontractor" means a person or entity, other than the Designer, having a direct Contract with the Contractor, subject to GC3.6 SUBCONTRACTING, to perform a part or parts of the Work, or to supply Material worked to a special design for the Work;

"Superintendent" means the employee or representative of the Contractor who is designated by the Contractor to act pursuant to GC2.6 SUPERINTENDENT;

"Supplementary Conditions" means the part of the contract documents which amends or supplements the General Conditions;

"Supplier" means a person or entity having a direct Contract with the Contractor to supply Plant or Material not worked to a special design for the Work;

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

"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 Amount, or the revised Contract Amount, or the amount that would increase or decrease the Contract Amount and the Applicable Taxes as evaluated by the Contracting Authority, and does not constitute tax advice on the part of Canada;

"Unit Price Arrangement" means that part of the Contract that prescribes the product of a price per unit of measurement multiplied by a number of units of measurement for performance of the work to which it relates;

"Unit Price Table" means the table set out in the Articles of Contract;

"Work" means, subject only to any express stipulation in the Contract to the contrary, everything that is necessary to be done, furnished or delivered by the Contractor to complete the Design Services, Construction and other services required under the Contract in accordance with the contract documents; and

"Working Day" means a day other than a Saturday, Sunday, or a holiday which is observed by the construction industry in the area of the place of the Work.

GC1.1.3 Application of Certain Provisions

- 1) Any provisions of the *Contract* that are expressly stipulated to be applicable only to a *Unit Price Arrangement* are not applicable to any part of the *Work* to which a *Lump Sum Arrangement* applies.
- 2) Any provisions of the *Contract* that are expressly stipulated to be applicable only to a *Lump Sum Arrangement* are not applicable to any part of the *Work* to which a *Unit Price Arrangement* applies.

GC1.1.4 Substantial Performance

- 1) The *Work* will be considered to have reached Substantial Performance when,
 - (a) the *Work* or a substantial part thereof has passed inspection and testing and is, in the opinion of Canada, ready for use by *Canada* or is being used for the intended purposes; and
 - (b) when the *Work* is, in the opinion of Canada, capable of completion or correction at a cost of not more than
 - (i) 3% of the first \$500,000, and
 - (ii) 2% of the next \$500,000, and
 - (iii) 1% of the balance
 of the value of the *Contract* at the time this cost is calculated.
- 2) Where the *Work* or a substantial part thereof is ready for use or is being used for the purposes intended and
 - (a) the remainder of the *Work* or a part thereof cannot be completed by the time specified in the *Contract*, or as amended by GC6.5 DELAYS AND EXTENSION OF TIME, for reasons beyond the control of the *Contractor*, or
 - (b) *Canada* and the *Contractor* agree not to complete a part of the *Work* within the specified time;

the cost of that part of the *Work* that was either beyond the control of the *Contractor* to complete or *Canada* and the *Contractor* have agreed not to complete by the time specified, shall be deducted from the value of the *Contract* referred to in paragraph 1)(b) of GC1.1.4, and the said cost shall not form part of the cost of the work remaining to be done in determining Substantial Performance.

GC1.1.5 Completion

- 1) The *Work* shall be deemed to have reached Completion when all designs, services, labour, *Plant* and *Material* required have been performed, used or supplied, and the *Contractor* has complied with the *Contract* and all orders and directions made pursuant thereto, all to the satisfaction of *Canada*.

GC1.2 CONTRACT DOCUMENTS**GC1.2.1 General**

- 1) The contract documents are complementary, and what is required by any one shall be as binding as if required by all.
- 2) References in the contract documents to the singular shall be considered to include the plural as the context requires.
- 3) Nothing contained in the contract documents shall create a contractual relationship between *Canada* and any *Subcontractor* or *Supplier* or the *Designer* or any consultant or their agents or employees.

GC1.2.2 Order of Precedence

- 1) In the event of any discrepancy or conflict in the contents of the following documents, such documents shall take precedence and govern in the following order:
 - a) any amendments or variation of the contract documents that is made in accordance with the General Conditions
 - b) any amendment issued prior to bid closing ,
 - c) *Supplementary Conditions*,
 - d) General Conditions,
 - e) *The Request for Proposal*,
 - f) The duly completed Bid when accepted.

Later dates shall govern within each of the above categories of documents.

- 2) In the event of any discrepancy or conflict in the information contained in the *Construction Documents*, the following rules shall apply:
 - a) Specifications shall govern over drawings;
 - b) Dimensions shown in figures on a plan shall govern where they differ from dimensions scaled from the same drawing; and
 - c) Drawings of larger scale shall govern over those of smaller scale.

GC1.2.3 Security and Protection of Documents and Work

- 1) The Contractor shall guard and protect contract documents, drawings, information, models and copies thereof, whether supplied by Canada or the Contractor, against loss or damage from any cause.
- 2) The Contractor shall keep confidential all information provided to the Contractor by or on behalf of Canada in connection with the Work, and all information developed by the Contractor as part of the Work, and shall not disclose any such information to any person without the written permission of Canada, except that the Contractor may disclose to a subcontractor, authorized in accordance with the Contract, information necessary to the performance of a subcontract. This section does not apply to any information that
 - a) is publicly available from a source other than the Contractor; or
 - b) is or becomes known to the Contractor from a source other than Canada, except any source that is known to the Contractor to be under an obligation to Canada not to disclose the information.
- 3) When the Contract, the Work, or any information referred to in paragraph 2) is identified as TOP SECRET, SECRET, CONFIDENTIAL or PROTECTED by Canada, the Contractor shall, at all times, take all measures reasonably necessary for the safeguarding of the material so identified, including such measures as may be further specified elsewhere in the Contract or provided, in writing, from time to time by Canada.
- 4) Without limiting the generality of paragraphs 2) and 3) of GC1.2.3, when the Contract, the Work, or any information referred to in paragraph 2) is identified as TOP SECRET, SECRET, CONFIDENTIAL or PROTECTED by Canada, Canada shall be entitled to inspect the Contractor's premises and the premises of its subcontractors or suppliers and any other person at any tier, for security purposes at any time during the term of the Contract, and the Contractor shall comply with, and ensure that any such subcontractors or suppliers comply with all written instructions issued by Canada dealing with the material so identified, including any requirement that employees of the Contractor and its subcontractors and suppliers and any other person at any tier execute and deliver declarations relating to reliability screenings, security clearances and other procedures.
- 5) The Contractor shall safeguard the Work and the Contract, the specifications, drawings and any other information provided by Canada to the Contractor, and shall be liable to Canada for any loss or damage from any causes.

GC1.2.4 Ownership and Re-use of Documents and Models

- 1) Except as may be specified elsewhere in the Contract, *Canada* relinquishes any right to ownership of copyright in any and all documents which are instruments of the services to be provided or furnished and are prepared by or on behalf of the *Contractor* or the *Designer* under the terms of the *Contract*.
- 2) After negotiation with the owner or owners of the copyright, *Canada* may re-use for another project the documents and models referred to in paragraph 1) of GC1.2.4, and shall pay the owner or owners for such re-use an appropriate fee based on current practice.
- 3) Models furnished by the *Contractor* at *Canada*'s expense shall be and remain the property of *Canada*.

GC1.3 STATUS OF THE CONTRACTOR

- 1) The *Contractor* is engaged under the *contract* as an independent contractor.
- 2) The *Contractor*, *its subcontractors*, employees, designers, suppliers and any other persons at any tier are not engaged by the *Contract* as employees, servants or agents of *Canada*.
- 3) For the purposes of the *contract* the *Contractor* shall be solely responsible for any and all payments and deductions required to be made by law including those required for *Canada* or Quebec Pension Plans, Employment Insurance, Worker's Compensation, provincial health or insurance plans, and Income Tax.

GC1.4 RIGHTS AND REMEDIES

- 1) Except as expressly provided in the Contract, the duties and obligations imposed by the Contract and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights, and remedies otherwise imposed or available by law.

GC1.5 TIME OF THE ESSENCE

- 1) Time is of the essence of the *Contract*.

GC1.6 INDEMNIFICATION BY THE CONTRACTOR

- 1) The *Contractor* shall pay all royalties and patent fees required for the performance of the *Contract* and, at the *Contractor's* expense, shall defend all claims, actions or proceedings against *Canada* charging or claiming that the services or any part thereof provided or furnished by the *Contractor* to *Canada* infringe any patent, industrial design, copyright trademark, trade secret or other proprietary right enforceable in *Canada*.
- 2) The *Contractor* shall indemnify and save *Canada* harmless from and against all claims, demands, losses, costs, damages, actions, suits, or proceedings by any third party, brought or prosecuted and in any manner based upon, arising out of, related to, occasioned by or attributable to the activities of the *Contractor*, the *Designer*, servants, agents, *Subcontractors* and suppliers and any other person at any tier, in performing the *Work*.
- 3) For the purposes of paragraph 2) of GC1.6, "activities" means any act improperly carried out, any omission to carry out an act and any delay in carrying out an act.

GC1.7 INDEMNIFICATION BY CANADA

- 1) Subject to the Crown Liability and Proceedings Act, the Patent Act, and any other law that affects *Canada's* rights, powers, privileges or obligations, *Canada* shall indemnify and save the *Contractor* harmless from and against all claims, demands, losses, costs, damage, actions, suits or proceedings arising out of the *Contractor's* activities under the *Contract* that are directly attributable to:
 - a) lack of or a defect in *Canada's* title to the *Work* site if owned by *Canada*, whether real or alleged; or
 - b) an infringement or an alleged infringement by the *Contractor* of any patent of invention or any other kind of intellectual property occurring while the *Contractor* was performing any act for the purposes of the

Contract employing a model, plan or design or any other thing related to the Work that was supplied by Canada to the Contractor.

GC1.8 LAWS, PERMITS AND TAXES

1. The Contractor shall comply with all federal, provincial and municipal laws and regulations applicable to the performance of the Work or any part thereof including, without limitation, all laws concerning health and labour conditions and the protection of the environment, and shall require compliance therewith by all of its subcontractors and suppliers at any tier as if the Work were being performed for an owner other than Canada. The Contractor shall furnish evidence of compliance with such laws and regulations to Canada at such times as Canada may reasonably request.
2. Unless stipulated otherwise in the Contract, the Contractor shall obtain and maintain all permits, certificates, licences, registrations and authorizations required for the lawful performance of the Work.
3. Prior to the commencement of the Work at the site, the Contractor shall tender to a municipal authority an amount equal to all fees and charges that would be lawfully payable to that municipal authority in respect of building permits as if the Work were being performed for an owner other than Canada.
4. Within 10 days of making a tender pursuant to paragraph 3) of GC1.8, the Contractor shall notify Canada of the amount properly tendered and whether or not the municipal authority has accepted that amount.
5. If the municipal authority has not accepted the amount tendered, the Contractor shall pay that amount to Canada within 6 days after the time stipulated in paragraph 4) of GC1.8.
6. For the purposes of this clause, "municipal authority" means any authority that would have jurisdiction respecting permission to perform the Work if the owner were not Canada.
7. Notwithstanding the residency of the Contractor, the Contractor shall pay any applicable tax arising from or related to the performance of the Work under the Contract.
8. In accordance with the Statutory Declaration referred to in paragraph 4) of GC5.5, "Substantial Performance of the Work", a Contractor who has neither residence nor place of business in the province or territory in which work under the Contract is being performed shall provide Canada with proof of registration with the provincial sales tax authorities in the said province.
9. For the purpose of the payment of any Applicable Taxes or the furnishing of security for the payment of any Applicable Taxes arising from or related to the performance of the Work, and notwithstanding the provision that all Material, Plant and interest of the Contractor in all real property, licences, powers and privileges, become the property of Canada after the time of purchase in accordance with GC3.10, "Material Plant and Real Property Become Property of Canada", the Contractor shall be liable, as a user or consumer, for the payment or for the furnishing of security for the payment of any Applicable Taxes payable, at the time of the use or consumption of that Material, Plant or interest of the Contractor in accordance with the relevant legislation.
10. Federal government departments and agencies are required to pay Applicable Taxes.
11. Applicable Taxes will be paid by Canada as provided in the request for payment. It is the sole responsibility of the Contractor to charge Applicable Taxes at the correct rate in accordance with applicable legislation. The Contractor agrees to remit to appropriate tax authorities any amounts of Applicable Taxes paid or due.
12. The Contractor is not entitled to use Canada's exemptions from any tax, such as provincial sales taxes, unless otherwise specified by law. The Contractor 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.
13. In those cases where Applicable Taxes, customs duties, and excise taxes are included in the Contract Amount, the Contract Amount 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 Amount if public notice of the change was given before bid submission date in sufficient detail to have permitted the Contractor to calculate the effect of the change.
14. 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 Contractor in respect of services provided in Canada if the Contractor is not a resident of Canada, unless the Contractor obtains a valid waiver from the Canada Revenue Agency. The amount withheld will be held on account for the Contractor in respect to any tax liability which may be owed to Canada.

GC1.9 WORKERS' COMPENSATION

- 1) Prior to commencing the *Work*, at the time of Substantial Performance of the *Work*, and prior to issuance of the *Certificate of Completion*, the *Contractor* shall provide evidence of compliance with workers' compensation legislation applicable to the place of the *Work*, including payments due thereunder.
- 2) At any time during the term of the *Contract*, when requested by Canada, the *Contractor* shall provide such evidence of compliance by the *Contractor*, its *Subcontractors* and any other person at any tier and any other person performing part of the *Work* who is required to comply with such legislation.

GC1.10 NATIONAL SECURITY

- 1) If *Canada* determines that the *Work* is of a class or kind that involves national security, *Canada* may order the *Contractor* to
 - a) provide *Canada* with any information concerning persons or entities employed or to be employed by the *Contractor* for purposes of the *Contract*; and
 - b) remove any person from the site of the *Work*, if in the opinion of *Canada*, that person may be a risk to the national security,
 and the *Contractor* shall comply with the order.
- 2) In all contracts with persons who are to be employed in the performance of the *Contract*, the *Contractor* shall make provision for the performance of any obligation that may be imposed upon the *Contractor* under paragraph 1) of GC1.10.

GC1.11 PUBLIC CEREMONIES AND SIGNS

- 1) The *Contractor* shall not permit any public ceremony in connection with the *Work* without the prior consent of *Canada*.
- 2) The *Contractor* shall not erect nor permit the erection of any sign or advertising on the *Work* or its site without the prior consent of *Canada*.

GC1.12 CONFLICT OF INTEREST

- 1) It is a term of the *Contract* that no individual, for whom the post-employment provisions of the Conflict of Interest and Post-Employment Code for Public Office Holders or the Values and Ethics Code for the Public Service apply, shall derive a direct benefit from the *Contract* unless that individual is in compliance with the applicable post-employment provisions.

GC1.13 INTERNATIONAL SANCTIONS

- 1) Persons and companies 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. Details on existing sanctions can be found at: [Http://www.dfait-maeci.gc.ca/trade/sanctions-en.asp](http://www.dfait-maeci.gc.ca/trade/sanctions-en.asp).
- 2) It is a condition of the *Contract* that the *Contractor* not supply to the Government of Canada any goods or services which are subject to economic sanctions.

- 3) By law, the *Contractor* must comply with changes to the regulations imposed during the life of the Contract. During the performance of the Contract should the imposition of sanctions against a country or person or the addition of a good or service to the list of sanctioned goods or services cause an impossibility of performance for the Contractor, the Contractor may request that the Contract be terminated in accordance with GC7.3 TERMINATION OF CONTRACT.

GC1.14 CERTIFICATION - CONTINGENCY FEES

- 1) In this clause:
- (a) "contingency fee" means any payment or other compensation that is contingent upon or is calculated upon the basis of a degree of success in soliciting or obtaining a Government Contract or negotiating the whole or any part of its terms;
 - (b) "employee" means a person with whom the *Contractor* has an employer/employee relationship;
 - (c) "person" includes an individual or a group of individuals, a corporation, a partnership, an organization and an association and, without restricting the generality of the foregoing, includes any individual who is required to file a return with the registrar pursuant to section 5 of the Lobbying Act R.S. 1985 c.44 (4th Supplement) as the same may be amended from time to time.
- 2) The *Contractor* certifies that it has not directly or indirectly paid or agreed to pay and covenants that it will not directly or indirectly pay or agree to pay a contingency fee for the solicitation, negotiation or obtaining of the *Contract* to any person other than an employee acting in the normal course of the employee's duties.
- 3) All accounts and records pertaining to payments of fees or other compensation for the solicitation, obtaining or negotiation of the *Contract* shall be subject to the accounts and audit provisions of the *Contract*.
- 4) If the *Contractor* certifies falsely under this section or is in default of the obligations contained therein, *Canada* may either take the *Work* out of the *Contractor's* hands in accordance with the provisions of the *Contract* or recover from the *Contractor* by way of reduction to the *Contract Amount* or otherwise the full amount of the contingency fee.

GC1.15 AGREEMENTS AND AMENDMENTS

- 1) The Contract constitutes the entire and sole agreement between the parties with respect to the subject matter of the Contract and supersedes all previous negotiations, communications and other agreements, whether written or oral, relating to it, unless they are incorporated by reference in the Contract. There are no terms, covenants, representations, statements or conditions binding on the parties other than those contained in the Contract.
- 2) The failure of either party at any time to require performance by the other party of any provision hereof shall not affect the right thereafter to enforce such provision. Nor shall the waiver by either party of any breach of any covenant, term or condition hereof be taken to be held to be a waiver of any further breach of the same covenant, term or condition.
- 3) The *Contract* may be amended only as provided for in the Contract.

GC1.16 UNSUITABLE WORKERS

- 1) Canada shall instruct the Contractor to remove from the site of the Work any person employed by the Contractor for purposes of the Contract who, in the opinion of Canada, is incompetent or is guilty of improper conduct, and the Contractor shall not permit a person who has been removed to return to the site of the Work.

GC1.17 ASSIGNMENT

- 1) The *Contract* shall not be assigned, in whole or in part by the contractor, without the written consent of *Canada*.

- 2) An assignment of the Contract without such consent shall not relieve the Contractor or the assignee from any obligation under the contract, or impose any liability upon Canada.

GC1.18 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 Contractor, the Contractor's Subcontractors, or any other entity engaged by the Contractor in the performance of the Design Services;

"Foreground" means any Invention first conceived, developed or reduced to practice as part of the Design Services and all other Technical Output conceived, developed, produced or implemented as part of the Design 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 Design 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 contract by Canada or the Contractor, such as internal financial or management information, unless it is a deliverable under the terms of the contract.

2. Identification and Disclosure of Foreground

The Contractor 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 Design Services or such earlier time as Canada or the contract may require, and
- (b) for each disclosure referred to in (a), indicate the names of all Sub-Contractors / 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 Contractor, Canada shall have the right to examine all records and supporting data of the Contractor which Canada reasonably decides is pertinent to the identification of the Foreground.

3. IP Rights Vest with Contractor

Subject to paragraphs 10 and 11 and the provisions of GC 1.10 National Security, and without affecting any IP Rights or interests therein that have come into being prior to the contract or that relate to information or data supplied by Canada for the purposes of the contract, all IP Rights in the Foreground shall immediately, as soon as they come into existence, vest in and remain the property of the Contractor.

4. Ownership Rights in Deliverables

Notwithstanding the Contractor'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 Contractor 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 Contractor pursuant to paragraph 3, for the purpose of:

- (a) 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;
- (b) 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;
- (c) 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
- (d) 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 Contractor hereby grants to Canada a non-exclusive, perpetual, worldwide, irrevocable licence to exercise all IP Rights that vest in the Contractor pursuant to paragraph 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 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 Contractor 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 Contractor shall ensure that in any sale, assignment, transfer or licence of any of the IP Rights that vest in the Contractor under this contract, 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 Contractor 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 Contractor 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 Work or necessary for the performance of the Work as may be required

- (a) for the purposes contemplated in paragraphs 5 and 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 paragraphs 5 and 6; and the Contractor agrees to make any such Background available to Canada upon request.

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

The Contractor acknowledges that Canada may wish to award contracts, which may include a competitive process, for any of the purposes contemplated in paragraphs 5, 6 and 7. The Contractor 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. Contractor's Right to Grant Licence

(a) The Contractor represents and warrants that the Contractor has, or the Contractor 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 contract.

(b) Where the IP Rights in any Background or Foreground are or will be owned by a Designer, the Contractor shall either obtain a licence from that Designer that permits compliance with paragraphs 5, 6 and 7 or shall arrange for the Designer 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 Contractor shall not use or incorporate any trade secrets or confidential information in any Foreground or Background used or created in performance of this contract.

11. Canada Supplied Information

(a) Where performance of the Design Services involves the preparation of a compilation using information supplied by Canada, then the IP Rights that shall vest under paragraph 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 Contractor agrees that the Contractor shall not use or disclose any Canada supplied information for any purpose other than completing the performance of the Work. The Contractor shall maintain the confidentiality of such information. Unless the contract otherwise expressly provides, the Contractor 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 contract, or at such earlier time as Canada may require.

(b) If the Contractor wishes to make use of any Canada supplied information that was supplied for purposes of the contract, for the commercial exploitation or further development of any of the Foreground, then the Contractor may make a written request for a licence to exercise the required IP Rights in that Canada supplied information, to Canada. The Contractor 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 Work out of the Contractor's hands in accordance with GC 7 of the General Conditions, in whole or in part, or if the Contractor fails to disclose any Foreground in accordance with paragraph 2, Canada may upon reasonable notice, require the Contractor 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 Designer. In the case of IP Rights in Foreground which have been sold or assigned to a party other than a Designer, the Contractor 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 Contractor 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 arm's 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 Contractor shall, at the Contractor'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 Contractor 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 Contractor completes the performance of the Work and discloses all of the Foreground in accordance with paragraph 2, and subject to the provisions of GC 1.10 National Security, the Contractor 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 Contractor except a sale or licence for end use of a product based on Foreground, the Contractor 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 contract 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 Contractor shall promptly notify Canada of the name, address and other pertinent information in regard to any transferee, assignee or licensee.

GC1.19 NO BRIBE

- 1) The Contractor represents and covenants that no bribe, gift, benefit, nor other inducement has been nor shall be paid, given, promised or offered directly or indirectly to any official or employee of Canada or to a member of the family of such a person, with a view to influencing the entry into the Contract or the administration of the Contract.

GC1.20 SUCCESSION

- 1) The Contract shall inure to the benefit of and be binding upon the parties hereto and their lawful heirs, executors, administrators, successors and, subject to GC1.17, "Assignment", permitted assigns.

GC1.21 Integrity Provisions – Contract (2016-04-04)

The Contractor agrees to comply with the [Code of Conduct for Procurement](#) and to be bound by its terms for the period of the Contract.

GC1.22 PERFORMANCE EVALUATION: CONTRACT (2017-08-17)

1. The performance of the Contractor during and upon completion of the services will be evaluated by Canada. The evaluation includes all or some of the following criteria:
 - a. quality of workmanship
 - b. time
 - c. project management
 - d. contract management
 - e. health and safety
2. A weighting factor of 20 points will be assigned to each of the five criteria as follows:
 - a. unacceptable: 0 to 5 points
 - b. not satisfactory: 6 to 10 points
 - c. satisfactory: 11 to 16 points
 - d. superior: 17 to 20 points
3. The consequences resulting from the performance evaluation are as follows:

- a. For an overall rating of 85% or higher, a congratulation letter is sent to the Contractor.
- b. For an overall rating of between 51% and 84%, a standard "meets expectations", letter is sent to the Contractor.
- c. For an overall rating of between 30% and 50%, a warning letter is sent to the Contractor indicating that if, within the next two years from the date of the letter, they receive 50% or less on another evaluation, the Contractor may be suspended from any new Public Works and Government Services Canada (PWGSC) solicitations for construction services, architectural and engineering services or facility maintenance services, of real property projects, for a period of one year.
- d. For an overall rating of less than 30%, a suspension letter is sent to the Contractor indicating that the Contractor is suspended from any new PWGSC solicitations for construction services, architectural and engineering services or facility maintenance services, of real property projects, for a period of one year from the date of the letter.
- e. When general average is between 30% and 50% and one of the ratings is of 5 points or less on any one criterion, a suspension letter is sent to the Contractor indicating that the Contractor is suspended from any new PWGSC solicitations for construction services, architectural and engineering services or facility maintenance services, of real property projects, for a period of one year from the date of the letter.

The form [PWGSC-TPSGC 2913](#), Select - Contractor Performance Evaluation Report (CPERF), is used to record the performance.

GC2 ADMINISTRATION OF THE CONTRACT – CONSTRUCTION SERVICES

GC2.1 DEPARTMENTAL REPRESENTATIVES AUTHORITY (2015-02-25)

"Technical Authority" shall be recognized as the Departmental representative and designated at time of award of contract and shall perform the following:

- a. is responsible for all matters concerning the technical content of the work under the contract;
- b. authorized to issue notices, instructions, and changes within the scope of the Work, relevant to the contract.
- c. accept on behalf of Canada any notice, order or other communication from the contractor relating to the Work
- d. within a reasonable time, review and respond to submissions made by the Contractor in accordance with the requirements of the Contract

The technical authority has no authority to authorize changes to the Contract terms and conditions of the Contract.

"Contracting Authority" shall be recognized as the authority delegated by the Minister of PWGSC to enter into contracts, amend the contracts and is responsible for all matters concerning and interpretation of the terms and conditions of the Contract.

The contracting authority is responsible for the management of the Contract and any changes to the Contract terms and conditions must be authorized in writing by the Contracting Authority.

GC2.2 INTERPRETATION OF CONTRACT

- 1) If, at any time before Canada has issued a Certificate of Completion, any question arises between the parties about whether anything has been done as required by the Contract or about what the Contractor is required by the Contract to do, and in particular but without limiting the generality of the foregoing, about
 - (a) the meaning of anything in the Terms of Reference;
 - (b) the meaning to be given to the Terms of Reference in case of any error therein, omission therefrom, or obscurity or discrepancy in their wording or intention;
 - (c) whether or not the quality or quantity of any Material or workmanship supplied or proposed to be supplied by the Contractor meets the requirements of the Contract;

- (d) whether or not the labour, Plant or Material performed, used and supplied by the Contractor for performing the Work and carrying out the Contract are adequate to ensure that the Work shall be performed in accordance with the Contract and that the Contract shall be carried out in accordance with its terms;
- (e) what quantity of any of the Work has been completed by the Contractor; or
- (f) the timing and scheduling of the various phases of the performance of the Work as specified in the Contract;

the question shall be decided, subject to the provisions of GC8, " Dispute Resolution", by Canada.

- 2) The Contractor shall perform the Work in accordance with any decisions of Canada that are made under paragraph 1) of GC2.2 and in accordance with any consequential directions given by Canada.
- 3) If the Contractor fails to comply with any instruction or direction issued by Canada pursuant to the Contract, Canada may employ such methods as Canada deems advisable to do what the Contractor failed to do, and the Contractor shall, on demand, pay Canada an amount that is equal to the aggregate of all costs, expenses and damages incurred or sustained by Canada by reason of the Contractor's failure to comply with such instruction or direction, including the cost of any methods employed by Canada in doing what the Contractor failed to do.

GC2.3 NOTICES

- 1) Subject to paragraph 3) of GC2.3, any notice, order or other communication may be given in any manner, and if required to be in writing, shall be addressed to the party to whom it is intended at the address in the Contract or at the last address of which the sender has received written notice in accordance with this section.
- 2) Any notice, order or other communication given in writing in accordance with paragraph 1 of GC2.3 shall be deemed to have been received by either party
 - (a) if delivered personally, on the day that it was delivered;
 - (b) if forwarded by mail, on the earlier of the day it was received or the sixth day after it was mailed; and
 - (c) if forwarded by facsimile or electronic mail, 24 hours after it was transmitted.
- 3. A notice given under GC7.1, "Taking the Work out of the Contractor's Hands", GC7.2, "Suspension of Work" and GC7.3, "Termination of Contract", shall be given in writing and, if delivered personally, shall be delivered, if the Contractor is a sole proprietor, to the Contractor or, if the Contractor is a partnership or corporation, to an officer thereof.

GC2.4 SITE MEETINGS (2015-02-25)

- 1. In consultation with Canada, the Contractor shall arrange site meetings at regular intervals, with all involved parties who are to attend, in order to ensure, among other things, the proper co-ordination of the Work.

GC2.5 REVIEW AND INSPECTION OF WORK

- 1) Canada shall review the Work to determine if it is proceeding in conformity with the Contract and to record the necessary data to make an assessment of the value of Work completed. Canada shall measure and record the quantities of labour, Plant and Material performed, used or supplied by the Contractor in performing the Work or any part thereof that is subject to a Unit Price Arrangement and, on request, shall inform the Contractor of those measurements, and permit the Contractor to inspect any records pertaining thereto.

- 2) Canada shall reject Work or Material which in Canada's opinion does not conform to the requirements of the Contract, and shall require inspection or testing of Work, whether or not such Work is fabricated, installed, or completed. If such Work is not in accordance with the requirements of the Contract, the Contractor shall correct the Work and shall pay Canada, on demand, all reasonable costs and expenses that were incurred by Canada in having the examination performed.
- 3) The Contractor shall provide Canada with access to the Work and its site at all times, and at all times shall provide sufficient, safe, and proper facilities for the review and inspection of the Work by persons authorized by Canada and any representatives of those authorities having jurisdiction. If parts of the Work are in preparation at locations other than the site of the Work, Canada shall be given access to such Work whenever it is in progress.
- 4) The Contractor shall furnish Canada with such information respecting the performance of the Contract as Canada may require, and render every possible assistance to enable Canada to verify that the Work is performed in accordance with the Contract, carry out any other duties and exercise any powers in accordance with the Contract.
- 5) If Work is designated for tests, inspections, or approvals in the Contract or by Canada's instructions, or by laws or ordinances of the place of the Work, the Contractor shall give Canada reasonable notice of when such Work shall be ready for review and inspection. The Contractor shall arrange for and shall give Canada reasonable notice of the date and time of inspections, tests or approvals.
- 6) If the Contractor covers, or permits to be covered, Work that has been designated for tests, inspections or approvals before such tests, inspections or approvals are made, completed or given, the Contractor shall, if so directed by Canada, uncover such Work, have the inspections, tests or approvals satisfactorily made, completed or given and make good the covering of the Work at the Contractor's expense.

GC2.6 SUPERINTENDENT

- 1) Prior to commencing the Work, the Contractor shall designate a Superintendent and shall notify Canada of the name, address and telephone number of the Superintendent. The Contractor shall keep the Superintendent at the Work site during working hours until the Work has reached completion.
- 2) The Superintendent shall be in full charge of the operations of the Contractor during the performance of the Work and shall be authorized to accept on behalf of the Contractor any notice, order or other communication given to the Superintendent or the Contractor relating to the Work.
- 3) Upon request of Canada, the Contractor shall remove any Superintendent who, in the opinion of Canada, is incompetent or has been guilty of improper conduct, and shall forthwith designate another Superintendent who is acceptable to Canada.
- 4) The Contractor shall not substitute a Superintendent without the written consent of Canada. If a Superintendent is substituted without such consent, Canada shall be entitled to refuse to issue any documentation or certification relating to progress payments, Substantial Performance or Completion of the Work until the Superintendent has returned to the Work site or another Superintendent who is acceptable to Canada has been substituted.

GC2.7 NON-DISCRIMINATION IN HIRING AND EMPLOYMENT OF LABOUR

- 1) For the purposes of this clause, "persons" include the Contractor, its subcontractors and suppliers at any tier and their respective employees, agents, licensees or invitees and any other individual involved in the performance of the Work or granted access to the Work site. A "person" includes any partnership, proprietorship, firm, joint venture, consortium and corporation.
- 2) Without restricting the provisions of paragraph 3) of GC2.6, "Superintendent", the Contractor shall not refuse to employ and shall not discriminate in any manner against any person because

(a) of that person's race, national or ethnic origin, colour, religion, age, sex, sexual orientation, marital status, disability, conviction for which a pardon has been granted, or family status;

(b) of the race, national or ethnic origin, colour, religion, age, sex, sexual orientation, marital status, disability, conviction for which a pardon has been granted, or family status of any person having a relationship or association with that person, or

(c) a complaint has been made or information has been given in respect of that person relating to an alleged failure by the Contractor to comply with subparagraph (a) or (b).

- 3) Within two working days immediately following receipt of a written complaint pursuant to paragraph 2) of GC2.7, the Contractor shall
 - (a) cause to have issued a written direction to the person or persons named by the complainant to cease all actions that form the basis of the complaint;
 - (b) forward a copy of the complaint to Canada by registered mail or courier service; and
 - (c) when the Labour Conditions are applicable under the circumstances of the complaint, forward a copy of the complaint to HRSDC - Labour to the attention of the appropriate Director as described in the Labour Conditions ("HRSDC - Labour" means the labour component of the federal Department of Human Resources and Social Development).
- 4) Within 24 hours immediately following receipt of a direction from Canada to do so, the Contractor shall cause to have removed from the site of the Work and from the performance of Work under the Contract, any person or persons whom Canada believes to be in breach of the provisions of paragraph 2) of GC2.7.
- 5) No later than 30 days after receipt of the direction referred to in paragraph 4) of GC2.7, the Contractor shall cause the necessary action to be commenced to remedy the breach described in the direction.
- 6) If a direction is issued pursuant to paragraph 4) of GC2.7, Canada may withhold from monies that are due and payable to the Contractor or setoff pursuant to GC5.9, "Right of Setoff", whichever is applicable, an amount representing the sum of the costs and payment referred to in paragraph 8) of GC2.7.
- 7) If the Contractor fails to proceed in accordance with paragraph 5) of GC2.7, Canada shall take the necessary action to have the breach remedied, and shall determine all supplementary costs incurred by Canada as a result.
- 8) Canada may make a payment directly to the complainant from monies that are due and payable to the Contractor upon receipt from the complainant of
 - (a) a written award issued pursuant to the federal Commercial Arbitration Act, R.S. 1985, c. 17 (2nd Supp.);
 - (b) a written award issued pursuant to the Canadian Human Rights Act, R.S. 1985, c. H-6;
 - (c) a written award issued pursuant to provincial or territorial human rights legislation; or
 - (d) a judgment issued by a court of competent jurisdiction.
- 9) If Canada is of the opinion that the Contractor has breached any of the provisions of this clause, Canada may take the Work out of the Contractor's hands pursuant to GC7.1, "Taking the Work out of the Contractor's Hands".
- 10) Subject to paragraph 7) of GC3.6, "Subcontracting", the Contractor shall ensure that the provisions of this clause are included in all agreements and contracts entered into as a consequence of the Work.

GC2.8 ACCOUNTS AND AUDITS

- 1) The Contractor shall, in addition to the requirements expressed in paragraph 6) of GC3.4, "Execution of the Work", maintain full records of the Contractor's estimated and actual cost of the Work together with all tender calls, quotations, contracts, correspondence, invoices, receipts and vouchers relating thereto, and shall make them available on request to audit and inspection by Canada and the Deputy Receiver General for Canada or by persons designated to act on behalf of either or both of them.
- 2) The Contractor shall allow any of the persons referred to in paragraph 1) of GC2.8 to make copies of and take extracts from any of the records and material, and shall furnish such persons or entities with any information those persons or entities may require from time to time in connection with such records and material.
- 3) The Contractor shall maintain and keep the records intact until the expiration of six (6) years after the date that a Certificate of Completion has been issued or until the expiration of such other period of time as Canada may direct.
- 4) The Contractor shall cause all subcontractors at any tier and all other persons directly or indirectly controlled by or affiliated with the Contractor and all persons directly or indirectly having control of the Contractor to comply with the requirements of this clause as if they were the Contractor.

GC3 EXECUTION AND CONTROL OF THE WORK

GC3.1 PROGRESS SCHEDULE (2015-02-25)

The *Contractor* shall:

- a. prepare and submit to Canada, prior to the submission of the Contractor's first progress claim, a progress schedule in accordance with the requirements set out in the Contract;
- b. monitor the progress of the Work relative to the schedule and update the schedule as stipulated by the contract documents;
- c. advise Canada of any revisions to the schedule required as the result of any extension of time for completion of the Contract that was approved by Canada; and
- d. prepare and submit to Canada, at the time of issuance of a Certificate of Substantial Performance, an update of any schedule clearly showing a detailed timetable that is acceptable to Canada for the completion of any unfinished Work and the correction of all listed defects.

GC3.2 PROJECT DESIGN AND ROLE OF THE DESIGNER

- 1) The *Contractor* shall report promptly to Canada any error, inconsistency, or omission the *Contractor* may discover when reviewing the contract documents provided by Canada. In making a review, the *Contractor* does not assume any responsibility to Canada or Canada for the accuracy of the review. The *Contractor* shall not be liable for damage or costs resulting from such errors, inconsistencies, or omissions in the contract documents prepared by or on behalf of Canada which the *Contractor* did not discover.
- 2) The *Contractor* shall employ or otherwise engage the architects, professional engineers and other consultants required to provide the *Design Services* to be performed by the *Designer* under the *Contract*.
- 3) The *Contractor* shall perform or furnish all necessary architectural services and structural, electrical, mechanical and other engineering services, and shall complete the design of the *Work* and prepare *Construction Documents* to permit the *Construction* and completion of the *Work*, all in accordance with the *Contract*.
- 4) The *Contractor* shall provide the co-ordination required to integrate all parts of the *Design Services*, and shall review with Canada reasonable alternative approaches to completion of the design of the *Work*.

- 5) During the progress of the *Work*, the *Contractor* shall provide or furnish *Canada* with design development documents and other submissions in furtherance of and in compliance with the *Request for Proposal* and *Proposal* and any qualification in the *Proposal* expressly accepted by *Canada*. The documents and submissions shall be submitted for review and acceptance in orderly sequence and sufficiently in advance so as to cause no delay in the *Work*.
- 6) *Canada* shall promptly review all documents and submissions referred to in paragraph 5) for conformity with the *Proposal* and *Request for Proposal*. It is understood and agreed that *Canada* can require the *Contractor*, at no additional expense to *Canada*, to have changes made to ensure that the *Work* shall be completed in accordance with the *Contract*.
- 7) *Canada* may issue additional instructions to the *Contractor* by means of plans, drawings or otherwise, as *Canada* may deem necessary for the performance of the *Work*. All such additional instructions shall be consistent with the *Contract*. The *Contractor* shall perform the *Work* in conformity with the additional instructions, and the *Contractor* shall not perform any such work without such additional instructions. In giving additional instructions, *Canada* may make minor changes to the *Work*, not inconsistent with the *Contract*, for which the *Contractor* shall not be entitled to claim any extra compensation from *Canada*.
- 8) Based on the accepted design development documents and other submissions, the *Contractor* shall furnish *Canada* with plans, drawings and specifications setting forth in detail the requirements for *Construction* of the *Work*. Once reviewed, accepted and signed by *Canada* and the *Contractor*, the plans, drawings and specifications shall be the *Construction Documents* for the purposes of the *Contract* and shall be part of the contract documents.
- 9) The *Contractor* shall cause the *Designer* to
- (a) review the design, when required, with those public authorities having jurisdiction in order that the necessary consents, approvals, licences and permits referred to in GC1.8 LAWS, PERMITS AND TAXES may be applied for and obtained;
 - (b) on an ongoing basis, provide any required assurances to those authorities respecting conformance of the *Work* with the design approved for the issuance of any building permit;
 - (c) review the *Work* at intervals appropriate to the progress of *Construction* to determine and verify that the *Work* is proceeding in conformance with the *Contract*;
 - (d) estimate and certify the amounts owing to the *Contractor* from time to time in accordance with the provisions of GC5 TERMS OF PAYMENT and provide such estimates in writing to the *Departmental Representative*;
 - (e) prior to the issuance of a *Certificate of Substantial Performance*, review the *Work* and provide *Canada* with a written declaration describing those parts of the *Work* that, in the *Designer's* professional opinion, are completed in conformance with the *Contract*, and listing those parts of the *Work* that, in the designer's professional opinion, are not completed in conformance with the *Contract*;
 - (f) prior to issuance of a *Certificate of Completion*, review the *Work* and provide *Canada* with
 - (i) a written declaration attesting to the completeness of the *Work*, and
 - (ii) if the *Work* or a portion of the *Work* is subject to a *Unit Price Arrangement*, a certificate of measurement of the final quantities of the *Work*.

GC3.3 CONSTRUCTION SAFETY

- 1) Subject to GC3.7, "Construction by Other Contractors or Workers", the *Contractor* shall be solely responsible for construction safety at the place of the *Work* and for initiating, maintaining and supervising all safety precautions

and programs in connection with the performance of the Work. In any emergency, the Contractor shall either stop the Work, make changes or order extra work to ensure the safety of life and the protection of the Work and neighbouring property.

- 2) Prior to commencing the Work, the Contractor shall notify the authorities having jurisdiction for construction safety at the site of the Work with respect to the intended commencement of the Work, and shall provide such authority with whatever additional information may be required by that authority.

GC3.4 EXECUTION OF THE WORK

- 1) It is acknowledged and agreed by the *Contractor* that any information contained in the *Request for Proposal* regarding soil conditions at the site of the *Work* was provided for information purposes only and that the *Contractor* is required to undertake its own geotechnical investigations for the purpose of determining the soil conditions and obtaining other information which may be required for foundation design or construction methodology purposes. The *Contractor* shall not be entitled to any additional compensation, and shall not have any claim against *Canada*, as a result of any difference between the actual soil conditions encountered by the *Contractor* at the site of the *Work*, and any information relating to soil conditions contained in the *Request for Proposal*.
- 2) The *Contractor* shall provide or furnish, and pay for, all professional services, *Design Services*, labour, *Plant*, *Material*, tools, construction machinery and equipment, water, heat, light, power, transportation, and other facilities and services necessary for the performance of the *Work* in accordance with the *Contract*.
- 3) Subject to paragraph 4), the *Contractor* shall have complete care, custody and control of the *Work* and shall direct and supervise the *Work* so as to ensure compliance with the *Contract*. The *Contractor* shall be responsible for construction means, methods, techniques, sequences and procedures and for coordinating the various parts of the *Work*, and shall ensure that all necessary safety precautions and protection are maintained throughout the *Work*. In any emergency, the *Contractor* shall either stop the *Work*, make changes or order extra work to ensure the safety of life and the protection of the *Work* and neighboring property.
- 4) When requested in writing by *Canada*, the *Contractor* shall make appropriate alterations in the method, *Plant* or work force at any time *Canada* considers the *Contractor's* actions to be unsafe, or damaging to either the *Work*, existing facilities, persons at the site of the work or the environment.
- 5) The *Contractor* shall have sole responsibility for the design, erection, operation, maintenance and removal of temporary structural and other temporary facilities and for the construction methods required in their use. The *Contractor* shall engage and pay for registered professional engineering personnel, skilled in the appropriate discipline to perform these functions where required by law or by the *Contract*, and in all cases when such temporary facilities and their method of construction are of such a nature that professional engineering skill is required to produce safe and satisfactory results.
- 6) The *Contractor* shall keep at least one copy of current contract documents, submittals, reports, and records of meetings at the place of the *Work*, in good order and available to *Canada*.
- 7) Except for any part of the *Work* that is necessarily performed away from or off the site of the *Work*, the *Contractor* shall confine *Plant*, storage of *Material*, and operations of employees to limits indicated by laws, ordinances, permits or the contract documents.

GC3.5 MATERIAL

- 1) Unless otherwise specified in the *Contract*, all *Material* incorporated in the *Work* shall be new.
- 2) Subject to paragraph 3) of GC3.5, if a specified reused, refurbished, or recycled item of *Material* is not available, the *Contractor* shall apply to *Canada* to substitute a similar item for the one specified.

- 3) If Canada agrees that the *Contractor's* application for substitution of a reused, refurbished, or recycled item is warranted, and that the substitute item is of acceptable quality and value to that specified and is suitable for the intended purpose, Canada may approve the substitution, subject to the following:
- (a) the request for substitution shall be made in writing to Canada and shall be substantiated by information in the form of the manufacturer's literature, samples and other data which may be required by Canada;
 - (b) the *Contractor* shall make the request for substitution in a manner that shall not negatively affect the progress schedule of the *Contract* and well in advance of the time the item of *Material* must be ordered;
 - (c) substitution of Material shall be permitted only with the prior written approval of Canada, and any substituted items that are supplied or installed without such approval shall be removed from the site of the Work at the expense of the *Contractor*, and specified items installed at no additional cost to Canada; and
 - (d) the *Contractor* shall be responsible for all additional expenses incurred by Canada, the *Contractor*, its designers, subcontractors and suppliers at any tier due to the *Contractor's* use of the substitute.

GC3.6 SUBCONTRACTING

- 1) Subject to the provisions of this clause, the *Contractor* may subcontract any part of the *Work but not the whole of the work*.
- 2) The *Contractor* shall notify Canada in writing of the *Contractor's* intention to subcontract.
- 3) A notification referred to in paragraph 2) of GC3.6 shall identify the part of the *Work*, and the *Subcontractor* with whom the Contractor intends to subcontract.
- 4) Canada may for reasonable cause, object to the intended subcontracting by notifying the *Contractor* in writing within six (6) days of receipt by Canada of a notification referred to in paragraph 2) of GC3.6.
- 5) If Canada objects to a subcontracting, the *Contractor* shall not enter into the intended subcontract.
- 6) The *Contractor* shall not change nor permit to be changed the *Designer*, a *Subcontractor* engaged by the *Contractor* in accordance with this clause, or a person or entity named in the *Contractor's Proposal* and accepted by Canada as part of the *Contractor's Proposal*, without the written consent of Canada.
- 7) The Contractor shall ensure that all the terms and conditions of the *Contract* that are of general application shall be incorporated in every other contract issued as a consequence of the *Contract*, at whatever tier, except those contracts issued solely to *Suppliers* at any tier for the supply of *Plant* or *Material*.
- 8) Neither a subcontracting nor Canada's consent to a subcontracting shall be construed to relieve the *Contractor* from any obligation under the *Contract* or to impose any liability upon Canada.

GC3.7 CONSTRUCTION BY OTHER CONTRACTORS OR WORKERS

- 1) Canada reserves the right to send other contractors or workers, with or without *Plant* and *Material*, onto the site of the Work.
- 2) When other contractors or workers are sent on to the site of the Work, Canada shall:
 - (a) to the extent it is possible, enter into separate contracts with the other contractors under conditions of Contract that are compatible with the conditions of the *Contract*;
 - (b) ensure that the insurance coverage provided by the other contractors is coordinated with the insurance coverage of the *Contractor* as it affects the *Work*; and

- (c) take all reasonable precautions to avoid labour disputes or other disputes arising from the work of the other contractors or workers.
- 3) When other contractors or workers are sent on to the site of the Work, the *Contractor* shall:
- (a) cooperate with them in the carrying out of their duties and obligations;
- (b) coordinate and schedule the *Work* with the work of the other contractors and workers;
- (c) participate with other contractors and workers in reviewing their construction schedules when directed to do so;
- (d) where part of the *Work* is affected by or depends upon for its proper execution the work of other contractors or workers, promptly report to *Canada* in writing and prior to proceeding with that part of the *Work*, any apparent deficiencies in such work. Failure by the *Contractor* to so report shall invalidate any claims against *Canada* by reason of the deficiencies in the work of other contractors or workers except those deficiencies not then reasonably discoverable; and
- (e) when designated as being responsible for construction safety at the place of the work in accordance with the applicable provincial or territorial laws, carry out its duties in that role and in accordance with those laws.
- 4) If, when entering into the *Contract*, the *Contractor* could not have reasonably foreseen nor anticipated the sending of other contractors or workers on to the site of the Work and provided the Contractor.
- (a) incurs extra expense in complying with the requirements of paragraph 3) of GC3.7, and
- (b) gives *Canada* written notice of a claim for that extra expense within thirty (30) days of the date that the other contractors or workers were sent onto the site of the Work

Canada shall pay the *Contractor* the cost of the extra labour, *Plant* and *Material* that was necessarily incurred, calculated in accordance with GC6.4 DETERMINATION OF PRICE.

GC3.8 LABOUR

1. To the extent to which they are available, consistent with proper economy and the expeditious carrying out of the Work, the Contractor shall, in the performance of the Work, employ a reasonable number of persons who have been on active service with the Armed Forces of Canada and have been honourably discharged therefrom.
2. The Contractor shall maintain good order and discipline among the Contractor's employees and workers engaged in the Work and shall not employ on the site of the Work anyone not skilled in the tasks assigned.

GC3.9 MATERIAL, PLANT AND REAL PROPERTY BECOME PROPERTY OF CANADA

- 1) Subject to paragraph 9) of GC1.8 LAWS PERMITS AND TAXES, all *Material* and *Plant* and the interest of the *Contractor* in all real property, licences, powers and privileges purchased, used or consumed by the *Contractor* for the *Construction* of the *Work* shall immediately after the time of their purchase, use or consumption be the property of *Canada* for the purposes of the *Work* and they shall continue to be the property of *Canada*
 - (a) in the case of *Material*, until *Canada* indicates that the materials shall not be required for the *Work*, and
 - (b) in the case of *Plant*, real property, licences, powers and privileges, until *Canada* indicates that the interest vested in *Canada* therein is no longer required for the purposes of the *Work*.
- 2) *Material* or *Plant* that is the property of *Canada* by virtue of paragraph 1) of GC3.9 shall not be taken away from the site of the *Work* nor used or disposed of except for the purposes of the *Work* without the written consent of the *Canada*.

- 3) *Canada* is not liable for loss of nor damage from any cause to the *Material* or *Plant* referred to in paragraph 1) of GC3.9, and the *Contractor* is liable for such loss or damage notwithstanding that the *Material* or *Plant* is the property of *Canada*.

GC3.10 DEFECTIVE WORK

- 1) The *Contractor* shall promptly remove from the site of the *Work* and replace or re-execute defective *Work* whether or not the defective *Work* has been incorporated in the *Work* and whether or not the defect is the result of poor workmanship, use of defective *Material*, or damage through carelessness or other act or omission of the *Contractor*.
- 2) The *Contractor*, at the *Contractor's* expense, shall promptly make good other work destroyed or damaged by such removals or replacements.
- 3) If, in the opinion of *Canada* it is not expedient to correct defective *Work* or *Work* not performed as provided for in the Contract documents, *Canada* may deduct from the amount otherwise due to the *Contractor* the difference in value between the *Work* as performed and that called for by the Contract Documents.
- 4) The failure of *Canada* to reject any defective *Work* or *Material* shall not constitute acceptance of the defective *Work* or *Material*.

GC3.11 USE OF THE WORK AND CLEANUP OF SITE

- 1) The *Contractor* shall be responsible for analyzing conditions at the site of the *Work* and selecting the appropriate design and construction solution for the successful completion of the *Work*.
- 2) The *Contractor* shall not load or permit to be loaded any part of the *Work* or its site with a weight or force that will endanger the safety of the *Work*.
- 3) The *Contractor* shall maintain the *Work* and its site in a tidy condition and free from an accumulation of waste material and debris.
- 4) Before the issue of a *Certificate of Substantial Performance*, the *Contractor* shall remove waste material and debris, and all *Plant* and *Material* not required for the performance of the remaining work and, unless otherwise stipulated in the Contract documents, shall cause the *Work* and its site to be clean and suitable for occupancy by *Canada*.
- 5) Before the issue of a *Certificate of Completion*, the *Contractor* shall remove all surplus plant and materials, and any waste products and debris from the site of the *Work*.
- 6) The *Contractor's* obligations described in paragraphs 4) to 6) do not extend to waste products and other debris caused by *Canada's* servants, or by other contractors and workers referred to in GC3.7 CONSTRUCTION BY OTHER CONTRACTORS OR WORKERS.

GC3.12 WARRANTY AND RECTIFICATION OF DEFECTS IN WORK

- 1) Without restricting any warranty or guarantee implied or imposed by law or contained in the Contract, the *Contractor* shall, at the *Contractor's* expense
 - (a) rectify and make good any defect or fault that appears in the *Work* or comes to the attention of *Canada* with respect to those parts of the *Work* accepted in connection with the *Certificate of Substantial Performance* within 12 months from the date of *Substantial Performance*;
 - (b) rectify and make good any defect or fault that appears in or comes to the attention of *Canada* in connection with those parts of the *Work* described in the *Certificate of Substantial Performance* within 12 months from the date of the *Certificate of Completion*;

- (c) transfer and assign, to Canada, any subcontractor, manufacturer or supplier extended warranties or guarantees implied or imposed by law or contained in the Contract covering periods beyond the 12 months stipulated above. Extended warranties or guarantees referred to herein shall not extend the 12-month period whereby the Contractor, except as may be provided elsewhere in the Contract, must rectify and make good any defect or fault that appears in the Work or comes to the attention of Canada; and
 - (d) provide, to Canada prior to the issuance of the Certificate of Completion, a list of all extended warranties and guarantees referred to in paragraph (c) of GC3.12.
- 2) Canada may direct the Contractor to rectify and make good any defect or fault referred to in paragraph 1) of GC3.12 or covered by any other expressed or implied warranty or guarantee, and the Contractor shall rectify and make good such defect within the time stipulated in the direction.
 - 3) A direction referred to in paragraph 2) of GC3.12 shall be in writing and shall be given to the Contractor in accordance with GC2.3 NOTICES.

GC5 TERMS OF PAYMENT – CONSTRUCTION SERVICES

GC5.1 INTERPRETATION

In these Terms of Payment

- 1) The "payment period" means a period of 30 consecutive days or such other longer period as is agreed between the Contractor and Canada.
- 2) An amount is "due and payable" when it is due and payable by Canada to the Contractor according to GC5.4 PROGRESS PAYMENT, GC5.5 SUBSTANTIAL PERFORMANCE OF THE WORK, or GC5.6 FINAL COMPLETION;
- 3) An amount is overdue when it remains unpaid on the first day following the day upon which it is due and payable.
- 4) The "date of payment" means the date of the negotiable instrument of an amount due and payable by the Receiver General for Canada.
- 5) The "Bank Rate" means the rate of interest established by the Bank of Canada as the minimum rate at which it makes short term advances to members of the Canadian Payments Association.
- 6) The "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.

GC5.2 AMOUNT PAYABLE

- 1) Subject to any other provisions of the Contract, Canada shall pay the Contractor, at the times and in the manner hereinafter set out, the amount by which the amounts payable by Canada to the Contractor in accordance with the Contract exceed the amounts payable by the Contractor to Canada, and the Contractor shall accept that amount as payment in full satisfaction for everything furnished and done by the Contractor in respect of the work to which the payment relates.
- 2) When making any payment to the Contractor, the failure of Canada to deduct an amount payable to Canada by the Contractor shall not constitute a waiver of the right to do so, or an admission of lack of entitlement to do so in any subsequent payment to the Contractor.
- 3) Should any payment be made by Canada in excess of what is owed to the Contractor for the actual work performed, the Contractor will reimburse Canada the excess immediately, with or without demand, and any amounts outstanding shall bear simple interest at the Average Bank rate plus 3 percent per annum from the date of overpayment until the day prior to the date of repayment by the Contractor.

- 4) No payment other than a payment that is expressly stipulated in the Contract, shall be made by Canada to the Contractor for any extra expense or any loss or damage incurred or sustained by the Contractor.

GC5.3 INCREASED OR DECREASED COSTS

- 1) The Contract Amount shall not be increased nor decreased by reason of any increase or decrease in the cost of the Work that is brought about by an increase or decrease in the cost of labour, Plant, Material or any wage adjustment arising pursuant to the Labour Conditions.
- 2) Notwithstanding paragraph 1) of GC5.3, if any change, including a new imposition or repeal, of any tax, customs or other duty, charge, or any similar imposition that is imposed under sales, customs or excise tax legislation of the Government of Canada or any Provincial or Territorial legislation, affects the cost of the Work to the Contractor, and occurs
- (a) after the date of submission by the Contractor of its bid; or
 - (b) after the date of submission of the last revision, if the Contractor's bid was revised;
 - (c) the Contract Amount shall be adjusted in the manner provided in paragraph 3) of GC5.3.
- 3) If a change referred to in paragraph 2) of GC5.3 occurs, the Contract Amount shall be increased or decreased by an amount established by an examination by Canada of the relevant records of the Contractor referred to in GC2.8, "Accounts and Audits", to be the increase or decrease in the cost incurred by the Contractor that is directly attributable to that change.
- 4) For the purpose of paragraph 2) of GC5.3, if a tax is changed after the tender closing, but public notice of the change has been given by the Minister of Finance or the corresponding Provincial or Territorial authority before that closing, the change shall be deemed to have occurred before the solicitation closing.
- 5) Notwithstanding paragraphs 2) to 4) of GC5.3, no adjustment to the Contract Amount in respect of the Work or a part thereof shall be made for a change in any imposition referred to in this section that occurs after the date required by the Contract for completion of the Work or that part of the Work.

GC5.4 PROGRESS PAYMENT

- 1) On the expiration of a payment period, the *Contractor* shall deliver to Canada
- (a) a written progress claim in a form acceptable to Canada, and certified by the *Designer*, that fully describes any part of the *Work* that has been completed, and any *Material* that was delivered to the *Work* site but not incorporated into the *Work*, during that payment period, and
 - (b) a completed and signed statutory declaration containing a declaration that up to the date of the progress claim, the *Contractor* has complied with all lawful obligations with respect to the Labour Conditions and that, in respect of the *Work*, all lawful obligations of the *Contractor* to its *Subcontractors*, *Suppliers* and the *Designer* (referred to collectively in the declaration as "subcontractors and suppliers") have been fully discharged.
- 2) Within 10 days of receipt of a progress claim and statutory declaration from the *Contractor*, Canada shall inspect, or cause to have inspected, the part of the *Work* and the *Material* described in the progress claim, and shall issue a progress report to the *Contractor*, that indicates the value of the part of the *Work* and the *Material* described in the progress claim that, in the opinion of *Canada*
- (a) is in accordance with the *Contract*, and
 - (b) was not included in any other progress report relating to the *Contract*.

- 3) Subject to GC5.2 AMOUNT PAYABLE and paragraph 5) of GC5.4, *Canada* shall pay the *Contractor* an amount that is equal to 100% of the value that is indicated in *Canada's* progress report with respect to the provision of the *Design Services*, together with an amount that is equal to
- (a) 95% of the value that is indicated in *Canada's* progress report with respect to the *Construction*, if a labour and material payment bond has been furnished by the *Contractor*, or
 - (b) 90% of the value that is indicated in the progress report with respect to the *Construction*, if a labour and material payment bond has not been furnished by the *Contractor*.
- 4) *Canada* shall pay the amount referred to in paragraph 3) of GC5.4 not later than
- (a) 30 days after the receipt by *Canada* of a progress claim and statutory declaration referred to in paragraph 1) of GC5.4, or
 - (b) 15 days after the *Contractor* has submitted to *Canada* a progress schedule or updated progress schedule in accordance with GC3.1 PROGRESS SCHEDULE,
- whichever is later.
- 5) In the case of the *Contractor's* first progress claim, it is a condition precedent to *Canada's* obligation under paragraph 3) of GC5.4 that the *Contractor* has provided all necessary documentation required by the Contract for the first progress claim.

GC5.5 SUBSTANTIAL PERFORMANCE OF THE WORK

- 1) If, at any time before the issuance of a *Certificate of Completion*, *Canada* determines that the *Work* has reached Substantial Performance as described in subparagraph 1) (b) of GC1.1.4 SUBSTANTIAL PERFORMANCE, *Canada* shall request the *Contractor* to provide a written declaration prepared and signed by the *Designer* in accordance with subparagraph 9)(e) of GC3.2 PROJECT DESIGN AND ROLE OF THE DESIGNER. Following receipt of the declaration, *Canada* shall inspect the *Work*, and if satisfied that the *Work* has reached Substantial Performance, shall issue a *Certificate of Substantial Performance* to the *Contractor*. The *Certificate of Substantial Performance* shall state the date of Substantial Performance and shall describe the parts of the *Work* not completed to the satisfaction of *Canada*, and all things that must be done by the *Contractor* before a *Certificate of Completion* is issued, and before the 12-month warranty period referred to in GC3.12 WARRANTY AND RECTIFICATION OF DEFECTS IN WORK shall commence for the said parts and all the said things.
- 2) The issuance of a *Certificate of Substantial Performance* does not relieve the *Contractor* from the *Contractor's* obligations under GC3.10 DEFECTIVE WORK.
- 3) Subject to GC5.2 AMOUNT PAYABLE and paragraph 4) of GC5.5, *Canada* shall pay the *Contractor* the amount referred to in paragraph 1) of GC5.2 AMOUNT PAYABLE less the aggregate of
- (a) the sum of all payments that were made pursuant to GC5.4 PROGRESS PAYMENT;
 - (b) an amount that is equal to *Canada's* estimate of the cost to *Canada* of rectifying defects described in the *Certificate of Substantial Performance* ; and
 - (c) an amount that is equal to *Canada's* estimate of the cost to *Canada* of completing the parts of the *Work* described in the *Certificate of Substantial Performance* , other than defects listed therein.
- 4) *Canada* shall pay the amount referred to in paragraph 3) of GC5.5, not later than
- (a) 30 days after the date of issue of a *Certificate of Substantial Performance*, or
 - (b) 15 days after the *Contractor* has delivered to *Canada*

- (i) a statutory declaration containing a declaration by the *Contractor* that up to the date of the Certificate of Substantial Performance, the *Contractor* has complied with all lawful obligations with respect to the Labour Conditions, discharged all its lawful obligations to its *Subcontractors*, *Suppliers* and the *Designer* in respect of the work under the *Contract*, and discharged its lawful obligations referred to in GC1.8 LAWS, PERMITS AND TAXES, and
- (ii) evidence of compliance with workers' compensation legislation in accordance with GC1.9 WORKERS' COMPENSATION, and
- (iii) an update of the progress schedule in accordance with the requirements of GC3.1 PROGRESS SCHEDULE

whichever is later.

GC5.6 FINAL COMPLETION

- 1) When *Canada* is of the opinion that the *Work* has been completed, the *Contractor* shall, on request, cause the *Designer* to provide *Canada* with
 - (a) a written declaration attesting to the completeness of the *Work*, and
 - (b) if the *Work* or a portion of the *Work* is subject to a *Unit Price Arrangement*, a certificate of measurement of the final quantities of the *Work*

both to the satisfaction of *Canada*.
- 2) Within five (5) days of the receipt of satisfactory documentation described in paragraph 1) of GC5.6 if *Canada* is satisfied that the *Contractor* has complied with the *Contract* and all orders and directions made pursuant thereto, and that the *Work* has been completed, *Canada* shall issue a *Certificate of Completion* to the *Contractor* and, if the *Work* or a portion of the *Work* is subject to a *Unit Price Arrangement*, *Canada* shall issue a *Final Certificate of Measurement* which shall be binding upon and conclusive between *Canada* and the *Contractor* as to the quantities referred to therein.
- 3) Subject to GC5.2 AMOUNT PAYABLE and paragraph 4) of GC5.6,, *Canada* shall pay the *Contractor* the amount referred to in GC5.2 less the aggregate of
 - (a) the sum of all payments that were made pursuant to GC5.4 PROGRESS PAYMENT, and
 - (b) the sum of all payments that were made pursuant to GC5.5 SUBSTANTIAL PERFORMANCE OF THE WORK.
- 4) *Canada* shall pay the amount referred to in paragraph 3) of GC5.6 not later than
 - (a) 60 days after the date of issue of a *Certificate of Completion*, or
 - (b) 15 days after the *Contractor* has delivered to *Canada*
 - (i) a statutory declaration which contains a declaration by the *Contractor* that all of the *Contractor's* lawful obligations and any lawful claims against the *Contractor* that arose out of the performance of the *Contract* have been discharged and satisfied, and
 - (ii) evidence of compliance with workers' compensation legislation in accordance with GC1.9 WORKERS' COMPENSATION

whichever is later.

GC5.7 PAYMENT NOT BINDING ON CANADA (2015-02-25)

Neither acceptance of a progress claim or progress report, nor any payment made by *Canada* under the *Contract*, nor partial or entire use or occupancy of the *Work* by *Canada* shall constitute an acceptance by *Canada* of any portion of the *Work* or *Material* that is not in accordance with the requirements of the *Contract*.

GC5.8 CLAIMS AND OBLIGATIONS

- 1) The *Contractor* shall discharge all the *Contractor's* lawful obligations and shall satisfy all lawful claims against the *Contractor* arising out of the performance of the *Work* at least as often as the *Contract* requires *Canada* to pay the *Contractor*.
- 2) Whenever requested to do so by *Canada*, the *Contractor* shall make a statutory declaration declaring to the existence and condition of any obligations and claims against the *Contractor* arising out of the performance of the *Work*.
- 3) In order to discharge lawful obligations of and satisfy lawful claims against the *Contractor*, or its *Designers* or *Subcontractors* arising out of the performance of the *Contract*, *Canada* may pay an amount that is due and payable to the *Contractor* directly to the claimant. Such payment is, to the extent of the payment, a discharge of *Canada's* liability to the *Contractor* under the *Contract* and may be deducted from any amount payable to the *Contractor* under the *Contract*.
- 4) For the purposes of paragraph 3) of GC5.8, and subject to paragraph 6) of GC5.8, a claim or obligation shall be considered lawful when it is so determined by
 - (a) a court of legal jurisdiction, or
 - (b) an arbitrator duly appointed to arbitrate the claim, or
 - (c) the written consent of the *Contractor* authorizing payment of the claim or obligation.
- 5) If a claim or obligation would have been subject to the provisions of Provincial or Territorial lien legislation or, in the Province of Quebec, the law relating to legal hypothecs had the *Contractor* been performing the *Work* for a entity other than *Canada*:
 - (a) such amount as may be paid by *Canada* pursuant to paragraphs 3) and 4) of GC5.8 shall not exceed the amount which the *Contractor* would have been obliged to pay had the provisions of such legislation or law been applicable to the *Work*;
 - (b) a claimant need not comply with the provisions of such legislation setting out the steps by way of notice, registration or otherwise as might have been necessary to preserve or perfect any claim for lien or privilege which the claimant might have had, and
 - (c) for the purposes of determining the entitlement of a claimant, the notice required by paragraph 8) of GC5.8 shall be deemed to replace the registration or provision of notice after the performance of work as required by any applicable legislation and no claim shall be deemed to have expired, become void or unenforceable by reason of the claimant not commencing any action within the time prescribed by such legislation.
- 6) The *Contractor*, shall at the request of any claimant, submit to binding arbitration, those questions that need be answered to establish any entitlement of the claimant to payment. The arbitration shall have as parties to it any *Designer*, *Subcontractor*, or suppliers to whom the claimant supplied *Material*, performed work or rented equipment should such *Subcontractor*, *Designer*, or supplier wish to be adjoined, and *Canada* shall not be a party to such arbitration. Subject to any agreement between the *Contractor* and the claimant, the arbitration shall be conducted in accordance with the governing Provincial or Territorial legislation applicable to the site of the *Work*.

- 7) Paragraph 3) of GC5.8 shall apply only to claims and obligations
- (a) the notification of which has set forth the amount claimed to be owing and the person or entity who by contract is primarily liable and has been received by *Canada* in writing before final payment is made to the *Contractor* pursuant to GC5.6 FINAL COMPLETION, and within 120 days of the date on which the claimant
 - (i) should have been paid in full under the claimant's contract with the *Contractor*, its *Designer*, *Subcontractor* or *Supplier*, if the claim is for money that was lawfully required to be held back from the claimant; or
 - (ii) performed the last of the services, work, labour, or furnished the last of the *Material* pursuant to the claimant's Contract with the *Contractor*, its *Designer*, *Subcontractor*, or *Supplier* where the claim is for money not lawfully required to be held back from the claimant, and
 - (b) the proceedings to determine the right to payment of which, pursuant to paragraph 5) of GC5.8, shall have commenced within one year from the date that the notification required by subparagraph 7)(a) of GC5.8 was received by *Canada*.
- 8) Upon receipt of a notice of claim, *Canada* may withhold from any amount that is due and payable to the *Contractor* pursuant to the *Contract*, the full amount of the claim or any portion thereof.
- 9) *Canada* shall notify the *Contractor* in writing in a timely manner of receipt of any claim and of the intention of *Canada* to withhold funds. At any time thereafter and until payment is made to the claimant, the *Contractor* may be entitled to post, with *Canada*, security in a form acceptable to *Canada* in an amount equal to the value of the claim, and upon receipt of such security *Canada* shall release to the *Contractor* any funds which would be otherwise payable to the *Contractor*, that were withheld pursuant to the provisions of this clause in respect of the claim of any claimant for whom the security stands.

GC5.9 RIGHT OF SET-OFF

- 1) Without limiting any right of setoff or deduction given or implied by law or elsewhere in the Contract, *Canada* may set off any amount payable to *Canada* by the *Contractor* under the Contract, or under any current contract, against any amount payable to the *Contractor* under the Contract.
- 2) For the purposes of paragraph 1) of GC5.9, "current contract" means a contract between *Canada* and the *Contractor*
- (a) under which the *Contractor* has an undischarged obligation to perform or supply work, labour or material; or
 - (b) in respect of which *Canada* has, since the date of the Contract, exercised any right to take the work that is the subject of that contract out of the *Contractor's* hands.

GC5.10 ASSESSMENTS AND DAMAGES FOR LATE COMPLETION

- 1) For the purposes of this clause
- (a) the *Work* shall be deemed to be completed on the date of *Certificate of Completion*, and
 - (b) the "period of delay" means the number of days commencing on the day fixed for completion of the *Work* and ending on the day immediately preceding the day on which the *Work* is completed but does not include any day within a period of extension granted pursuant to GC6.5 DELAYS AND EXTENSION OF TIME, and any other day on which, in the opinion of *Canada*, completion of the *Work* was delayed for reasons beyond the control of the *Contractor*.

- 2) If the *Contractor* does not complete the *Work* by the day fixed for its completion but completes it thereafter, the *Contractor* shall pay *Canada* an amount equal to the aggregate of
- (a) all salaries, wages and traveling expenses incurred by *Canada* in respect of persons overseeing the performance of the *Work* during the period of delay;
 - (b) the cost incurred by *Canada* as a result of the inability to use the completed *Work* for the period of delay; and
 - (c) all other expenses and damages incurred or sustained by *Canada* during the period of delay as a result of the *Work* not being completed by the day fixed for its completion.
- 3) *Canada* may waive the right of *Canada* to the whole or any part of the amount payable by the *Contractor* pursuant to paragraph 2) of GC5.10 if, in the opinion of *Canada*, it is in the public interest to do so.

GC5.11 DELAY IN MAKING PAYMENT

- 1) Notwithstanding GC1.5 TIME OF THE ESSENCE, any delay by *Canada* in making any payment when it is due pursuant to GC5 shall not be a breach of the *Contract* by *Canada*.
- 2) Subject to paragraph 3) of GC5.11, *Canada* shall pay to the *Contractor* simple interest at the Average Bank Rate plus 3 percent per annum on any amount which is overdue pursuant to paragraph 3) of GC5.1 INTERPRETATION, and the interest shall apply from and include the day such amount became overdue until the day prior to the date of payment.
- 3) Interest shall be paid without demand by the *Contractor* except that
- (a) in respect of amounts that are less than 15 days overdue, no interest shall be paid in respect of payment made within such 15 days unless the *Contractor* so demands after such amounts have become due and payable, and
 - (b) interest shall not be payable or paid on overdue advance payments, if any.

GC5.12 INTEREST ON SETTLED CLAIMS

- 1) For the purposes of this clause, a claim means a disputed amount subject to negotiation between *Canada* and the *Contractor* under the *Contract*.
- 2) A claim is deemed to have been settled when an agreement in writing is signed by *Canada* and the *Contractor* setting out the amount of the claim to be paid by *Canada* and the items of work for which the said amount is to be paid.
- 3) A settled claim is deemed to be outstanding from the day immediately following the date the said claim would have been due and payable under the *Contract* had it not been disputed.
- 4) *Canada* shall pay to the *Contractor* simple interest on the amount of a settled claim at the Average Bank Rate plus 3 per cent per annum from the date the settled claim was deemed to be outstanding until the day prior to the date of payment.

GC5.13 RETURN OF SECURITY DEPOSIT

- 1) After a *Certificate of Substantial Performance* has been issued, and if the *Contractor* is not in breach of nor in default under the *Contract*, *Canada* shall return to the *Contractor* all or any part of a Security Deposit that, in the opinion of *Canada*, is not required for the purposes of the *Contract*.
- 2) After a *Certificate of Completion* has been issued, *Canada* shall return to the *Contractor* the remainder of any security deposit unless the *Contract* stipulates otherwise.

- 3) If the security deposit was paid into the Consolidated Revenue Fund of *Canada*, *Canada* shall pay interest thereon to the *Contractor* at a rate established from time to time pursuant to section 21(2) of the Financial Administration Act.

GC6 DELAYS AND CHANGES IN THE WORK –CONSTRUCTION SERVICES

GC6.1 CHANGES IN THE WORK

- 1) At any time before issuing a *Certificate of Completion*, *Canada* may issue orders for additions, deletions or other changes to the *Work*, or changes in the location or position of the whole or any part of the *Work*, if the addition, deletion, change or other revision is deemed by *Canada* to be, consistent with the general intent of the *Contract*.
- 2) An order referred to in paragraph 1) of GC6.1 shall be in writing and given to the *Contractor* in accordance with GC2.3 NOTICES.
- 3) Upon receipt of an order, the *Contractor* shall promptly perform the work in accordance with the order as if the order had appeared in and been part of the original *Contract*.
- 4) If anything done or omitted by the *Contractor* pursuant to an order increases or decreases the cost of the *Work* to the *Contractor*, payment for the work shall be made in accordance with GC6.4 DETERMINATION OF PRICE.

GC6.2 CHANGES IN SUBSURFACE CONDITIONS

- 1) If, during the performance of the *Work*, the *Contractor* encounters subsurface conditions that are substantially different from the subsurface conditions described in the Request for Proposal documents supplied to the *Contractor*, or a reasonable assumption of fact based thereon, the *Contractor* shall give notice to *Canada* immediately upon becoming aware of the situation.
- 2) If the *Contractor* is of the opinion that the *Contractor* may incur or sustain any extra expense or any loss or damage that is directly attributable to the changed subsurface conditions, the *Contractor* shall within 10 days of the date the changed subsurface conditions were encountered, give *Canada* written notice of intention to claim for that extra expense, loss or damage.
- 3) If the *Contractor* has given a notice referred to in paragraph 2) of GC6.2, the *Contractor* shall give *Canada* a written claim for extra expense, loss or damage no later than 30 days after the date that a *Certificate of Substantial Performance* is issued.
- 4) A written claim referred to in paragraph 3) of GC6.2 shall contain a sufficient description of the facts and circumstances of the occurrence that is the subject of the claim to enable *Canada* to determine whether or not the claim is justified, and the *Contractor* shall supply such further and other information for that purpose as *Canada* requires.
- 5) If *Canada* determines that a claim referred to in paragraph 3) of GC6.2 is justified, *Canada* shall make an extra payment to the *Contractor* in an amount that is calculated in accordance with GC6.4, "Determination of Price".
- 6) If, in the opinion of *Canada*, the *Contractor* effects a saving of expenditure that is directly attributable to a substantial difference between the information relating to subsurface conditions at the site of the *Work* that is contained in the Request for Proposal documents, or a reasonable assumption of fact based thereon, and the actual subsurface conditions encountered by the *Contractor*, the *Contract Amount* shall be reduced by the amount of the saving of expenditure determined in accordance with GC6.4, "Determination of Price".
- 7) If the *Contractor* fails to give a notice referred to in paragraph 2) of GC6.2 and a claim referred to in paragraph 3) of GC6.2 within the times stipulated, an extra payment shall not be made to the *Contractor* in respect of the occurrence.

- 8) Canada does not warrant the content expressed in any subsurface report available for the perusal of the Contractor that does not form part of the Request for proposal and contract documents.

GC6.3 HUMAN REMAINS, ARCHAEOLOGICAL REMAINS AND ITEMS OF HISTORICAL OR SCIENTIFIC INTEREST

- 1) For the purposes of this clause
- (a) "human remains" means the whole or any part of a deceased human being, irrespective of the time of death;
 - (b) "archaeological remains" are items, artifacts or things made, modified or used by human beings in antiquity and may include, but not be limited to, stone, wood or iron structures or monuments, dump deposits, bone artifacts, weapons, tools, coins, and pottery;
 - (c) "items of historical or scientific interest" are naturally occurring or manufactured objects or things of any age that are not archaeological remains but may be of interest to society because of their historical or scientific significance, value, rarity, natural beauty, or other quality.
- 2) If, during the course of the *Work*, the *Contractor* encounters any object, item or thing which is described in paragraph 1) of GC6.3 or which resembles any object, item or thing described in paragraph 1) of GC6.3, the *Contractor* shall
- (a) take all reasonable steps, including stopping work in the affected area, to protect and preserve the object, item or thing,
 - (b) immediately notify *Canada* of the circumstances in writing, and
 - (c) take all reasonable steps to minimize additional costs which may accrue as a result of any work stoppage.
- 3) Upon receipt of a notification in accordance with paragraph 2)(b) of GC6.3, *Canada* shall promptly determine whether the object, item or thing is one described in, or contemplated by paragraph 1) of GC6.3, and shall notify the *Contractor* in writing of any action to be performed, or work to be carried out, by the *Contractor* as a result of *Canada's* determination.
- 4) *Canada* may, at any time, enlist the services of experts to assist in the investigation, examination, taking of measurements or other such recordings, placing of permanent protection around or removing of the object, item or thing encountered by the *Contractor*, and the *Contractor* shall, to the satisfaction of *Canada*, allow them access and cooperate with them in the carrying out of their duties and obligations.
- 5) Human remains, archaeological remains and items of historical or scientific interest encountered at the site of the *Work* shall be deemed to be the property of *Canada*.
- 6) Except as may be otherwise provided for in the *Contract*, the provisions of GC6.4 DETERMINATION OF PRICE, and GC6.5 DELAYS AND EXTENTION OF TIME shall apply.

GC6.4 DETERMINATION OF PRICE

GC6.4.1 Price Determination Prior to Undertaking Changes

- 1) If a Lump Sum Arrangement applies to the Contract or a part thereof, the price of any change shall be the aggregate estimated cost of labour, Plant and Material that is required for the change as agreed upon in writing by the Contractor and Canada plus an allowance for supervision, co-ordination, administration, overhead, margin and the risk of undertaking the work within the stipulated amount, which allowance shall be equal to
- (a) 20 percent of the aggregate costs referred to herein for that portion of the Work done by the

Contractor's own forces, if the aggregate cost of the Work does not exceed \$50,000;

- (b) 15 percent of the aggregate costs referred to herein for that portion of the Work that is done by subcontract, if the aggregate cost of the Work does not exceed \$50,000; or
 - (c) a negotiated percentage of the aggregate costs referred to herein or a negotiated amount
 - (i) if the aggregate cost of the Work exceeds \$50,000; or
 - (ii) if the Contractor and Canada agree in writing.
- 2) If a Unit Price Arrangement applies to the Contract or a part thereof, the Contractor and Canada may, by agreement in writing, add items, units of measurement, estimated quantities and prices per unit to the Unit Price Table.
 - 3) A price per unit referred to in paragraph 2) of GC6.4.1 shall be determined on the basis of the aggregate estimated cost of labour, Plant and Material that is required for the additional item as agreed upon by the Contractor and Canada, plus an allowance determined in accordance with paragraph 1) of GC6.4.1.
 - 4) To facilitate approval of the price of the change or the additional price per unit as applicable, the Contractor shall submit a cost estimate breakdown identifying, as a minimum, the estimated cost of labour, Plant, Material, each subcontract amount, and the amount of the allowance.
 - 5) If no agreement is reached as contemplated in paragraph 1) of GC6.4.1, the price shall be determined in accordance with GC6.4.2.
 - 6) If no agreement is reached, as contemplated in paragraphs 2) and 3) of GC6.4.1, Canada shall determine the class and the unit of measurement of the item of labour, Plant or Material and the price per unit shall be determined in accordance with GC6.4.2.

GC6.4.2 Price Determination Following Completion of Changes

- 1) If it is not possible to predetermine, or if there is failure to agree upon the price of a change in the Work, the price of the change shall be equal to the aggregate of
 - (a) all reasonable and proper amounts actually expended or legally payable by the Contractor in respect of the labour, Plant and Material that fall within one of the classes of expenditure described in paragraph 2) of GC6.4.2, that are directly attributable to the performance of the Contract;
 - (b) an allowance for profit and all other expenditures or costs, including overhead, general administration costs, financing and interest charges, in an amount that is equal to 10% of the sum of the expenses referred to in subparagraph 1)(a) of GC6.4.2; and
 - (c) interest on the amounts determined under subparagraphs 1)(a) and 1)(b) of GC6.4.2 calculated in accordance with GC5.12, "Interest on Settled Claims";
- 2) The cost of labour, Plant and Material referred to in subparagraph 1)(a) of GC6.4.2 shall be limited to the following categories of expenditure:
 - (a) payments to Subcontractors and Suppliers;
 - (b) wages, salaries, bonuses and, if applicable, travel and lodging expenses of employees of the Contractor located at the site of the Work and that portion of wages, salaries, bonuses and, if applicable, travel and lodging expenses of personnel of the Contractor generally employed at the head office or at a general office of the Contractor provided they are actually and properly engaged on the Work under the Contract;
 - (c) assessments payable under any statutory authority relating to workers' compensation, employment insurance, pension plan or holidays with pay, provincial health or insurance plans, environmental reviews, and Applicable Taxes collection costs;

- (d) rent that is paid for Plant, or an amount equivalent to the said rent if the Plant is owned by the Contractor, that is necessary for and used in the performance of the Work, if the rent or the equivalent amount is reasonable and use of that Plant has been approved by Canada;
- (e) payments for maintaining and operating Plant necessary for and used in the performance of the Work, and payments for effecting repairs thereto that, in the opinion of Canada, are necessary for the proper performance of the Contract, other than payments for any repairs to the Plant arising out of defects existing before its allocation to the Work;
- (f) payments for Material that is necessary for and incorporated in the Work, or that is necessary for and consumed in the performance of the Contract;
- (g) payments for preparation, delivery, handling, erection, installation, inspection, protection and removal of the Plant and Material necessary for and used in the performance of the Contract; and
- (h) any other payments made by the Contractor with the approval of Canada that are necessary for the performance of the Contract in accordance with the contract documents.

GC6.4.3 Price Determination - Variations in Tendered Quantities

For the purpose of this clause "tendered quantities" means the estimated quantities identified in the Request for Proposal documents.

- 1) Except as provided in paragraphs 2), 3), 4) and 5) of GC6.4.3, if it appears that the final quantity of labour, Plant and Material under a price per unit item shall exceed or be less than the estimated tendered quantity, the Contractor shall perform the Work or supply the Plant and Material required to complete the item and payment shall be made for the actual Work performed or Plant and Material supplied at the price per unit set out in the Contract.
- 2) If the final quantity of the price per unit item exceeds the estimated tendered quantity by more than 15 percent, either party to the Contract may make a written request to the other party negotiate an amended price per unit for that portion of the item which exceeds 115 percent of the estimated tendered quantity, and to facilitate approval of any amended price per unit, the Contractor shall, on request, provide Canada with
 - (a) detailed records of the actual cost to the Contractor of performing or supplying the tendered quantity for the price per unit item up to the time the negotiation was requested, and
 - (b) the estimated unit cost of labour, Plant and Material required for the portion of the item that is in excess of 115 percent of the tendered quantity.
- 3) If agreement is not reached as contemplated in paragraph 2) of GC6.4.3, the price per unit shall be determined in accordance with GC6.4.2.
- 4) If it appears that the final quantity of labour, Plant and Material under a price per unit item shall be less than 85 percent of the estimated tendered quantity, either party to the Contract may make a written request to the other party to negotiate a change to the price per unit for the item if
 - (a) there is a demonstrable difference between the unit cost to the Contractor of performing or supplying the estimated tendered quantity and the unit cost to the Contractor for performing or supplying the final quantity; and
 - (b) the difference in unit cost is due solely to the decrease in quantity and not to any other cause.
- 5) For the purposes of the negotiation referred to in paragraph 4) of GC6.4.3
 - (a) the onus of establishing, justifying and quantifying a proposed change lies with the party making the request for negotiation; and

(b) in no event shall the total price for an item that has been amended as a result of a reduction in quantity pursuant to paragraph 4) of GC6.4.3 exceed the amount that would have been payable to the Contractor had 85 percent of the tendered quantity actually been performed or supplied.

GC6.5 DELAYS AND EXTENSION OF TIME

- 1) Upon application of the Contractor made before the date first fixed for completion of the Work or before any other date previously fixed under this clause, Canada may extend the time for completion of the Work by fixing a new date if Canada determines that causes beyond the control of the Contractor have delayed its completion.
- 2) The Contractor's application shall be accompanied by the written consent of the bonding company whose bond forms part of the Contract Security.
- 3) Subject to paragraph 4) of GC6.5, no payment, other than a payment that is expressly stipulated in the Contract, shall be made by Canada to the Contractor for any extra expense, loss or damage incurred or sustained by the Contractor due to delay, whether or not the delay is caused by circumstances beyond the control of the Contractor.
- 4) If the Contractor incurs or sustains any extra expense or any loss or damage that is directly attributable to any neglect or delay that occurs after the date of the Contract on the part of Canada in providing any information or in doing any act that the Contract either expressly requires Canada to do or that would ordinarily be done by an owner in accordance with the practice of the trade, the Contractor shall give Canada written notice of intention to claim for that extra expense or loss or damage within 10 working days of the date the neglect or delay first occurred.
- 5) When the Contractor has given a notice referred to in paragraph 4) of GC6.5, the Contractor shall give Canada a written claim for the extra expense, loss or damage no later than 30 days after the date that a Certificate of Completion is issued and not afterwards.
- 6) A written claim referred to in paragraph 5) of GC6.5 shall contain a sufficient description of the facts and circumstances of the occurrence that is the subject of the claim to enable Canada to determine whether or not the claim is justified and the Contractor shall supply such further and other information for that purpose as Canada may require.
- 7) If Canada determines that a claim referred to in paragraph 5) of GC6.5 is justified, Canada shall make an extra payment to the Contractor in an amount that is calculated in accordance with GC6.4, "Determination of Price".
- 8) If the Contractor fails to give a notice referred to in paragraph 4) and a claim referred to in paragraph 5) of GC6.5 within the times stipulated, an extra payment shall not be made to the Contractor in respect of the occurrence.

GC7 DEFAULT, SUSPENSION OR TERMINATION OF CONTRACT

GC7.1 TAKING THE WORK OUT OF THE CONTRACTOR'S HANDS

- 1) By giving notice in writing to the Contractor in accordance with GC2.3, "Notices", Canada, without any other authorization, may take all or any part of the Work out of the Contractor's hands, and may employ such means as Canada sees fit to have the Work completed if the Contractor
 - (a) fails to remedy any delay in the commencement or default in the diligent performance of the Work to the satisfaction of Canada within 6 days of Canada giving notice to the Contractor in writing in accordance with GC2.3, "Notices";
 - (b) defaults in the completion of any part of the Work within the time fixed for its completion by the Contract;
 - (c) becomes insolvent, or has committed an act of bankruptcy, and has neither made a proposal to its creditors nor filed a notice of intention to make such a proposal, pursuant to the Bankruptcy and Insolvency Act;

- (d) abandons the work;
 - (e) makes an assignment of the Contract without the consent required by GC1.17, "Assignment", or
 - (f) otherwise fails to observe or perform any of the provisions of the Contract.
- 2) If the whole or any part of the Work is taken out of the Contractor's hands, the Contractor's right to any further payment that is due or accruing due under the Contract is, subject only to paragraph 3) of GC7.1, extinguished, and the Contractor is liable to pay Canada, upon demand, an amount that is equal to the amount of all loss and damage incurred or sustained by Canada in respect of the Contractor's failure to complete the Work.
 - 3) If the whole or any part of the Work that is taken out of the Contractor's hands is completed by Canada, Canada may pay the Contractor the amount, if any, of the holdback or a progress claim as determined by Canada that had accrued and was due prior to the date on which the Work was taken out of the Contractor's hands and that is not required for the purposes of having the Work performed or of compensating Canada for any other loss or damage incurred or sustained by reason of the Contractor's default.
 - 4) The taking of the Work or any part thereof out of the Contractor's hands does not relieve the Contractor from any obligation under the Contract or imposed by law except the obligation to complete the performance of that part of the Work that was taken out of the Contractor's hands.
 - 5) If the Work or any part thereof is taken out of the Contractor's hands, all Plant and Material and the interest of the Contractor, or its suppliers or subcontractors at any tier, in all real property, licences, powers and privileges acquired, used or provided by the Contractor, or its suppliers or subcontractors at any tier, under the Contract shall continue to be the property of Canada without compensation.
 - 6) When Canada certifies that any Plant, Material, or any interest of the Contractor is no longer required for the purposes of the Work, or that it is not in the interests of Canada to retain that Plant, Material, or interest, it shall revert to the Contractor.
 - 7) If the Contractor has become insolvent or has committed an act of bankruptcy, and has either made a proposal to its creditors or filed a notice of intention to make such a proposal, pursuant to the Bankruptcy and Insolvency Act, the Contractor shall immediately forward a copy of the proposal or the notice of intention to Canada.

GC7.2 SUSPENSION OF WORK

- 1) When, in Canada's opinion, it is in the public interest to do so, Canada may require the Contractor to suspend performance of the Work either for a specified or an unspecified period, by giving a notice of suspension in writing to the Contractor in accordance with GC2.3, "Notices".
- 2) When a notice of suspension is received by the Contractor, the Contractor shall suspend all operations in respect of the Work except those that Canada determines are necessary for the care and preservation of the Work, Plant and Material.
- 3) During a period of suspension, the Contractor shall not remove any part of the Work, Plant or Material from its site without the consent of Canada.
- 4) If a period of suspension is 60 days or less, the Contractor shall resume the performance of the Work on the expiration of that period, and the Contractor is entitled to be paid the extra costs necessarily incurred by the Contractor as a result of the suspension, determined in accordance with GC6.4, "Determination of Price".
- 5) If a period of suspension is more than 60 days, Canada and the Contractor may agree that the performance of the Work shall be continued by the Contractor, and the Contractor shall resume performance of the Work subject to any terms and conditions agreed upon by Canada and the Contractor. If Canada and the Contractor do not agree that performance of the Work shall be continued by the Contractor, or upon the terms and conditions under which the Contractor shall continue the Work, the notice of suspension shall be deemed to be a notice of termination pursuant to GC7.3, "Termination of Contract".

GC7.3 TERMINATION OF CONTRACT

- 1) Canada may terminate the Contract at any time by giving a notice of termination in writing to the Contractor in accordance with GC2.3, "Notices".
- 2) If the Contractor receives a notice of termination, the Contractor shall forthwith cease all operations in performance of the Contract, subject to any conditions stipulated in the notice.
- 3) Subject to paragraph 4) of GC7.3, if the Contract is terminated, Canada shall pay the Contractor an amount determined to be due to the Contractor pursuant to GC6.4, "Determination of Price", less the aggregate of all amounts that were paid to the Contractor by Canada and all amounts that are due to Canada from the Contractor pursuant to the Contract.
- 4) In no event shall the total amount payable by Canada to the Contractor exceed the amount, calculated in accordance with GC5, "Terms of Payment", that would have been payable to the Contractor had the Contractor completed the Work.
- 5) Payment to the Contractor, if any, shall be made as soon as practicable under the circumstances.

GC7.4 SECURITY DEPOSIT - FORFEITURE OR RETURN

- 1) If the Work is taken out of the Contractor's hands, or the Contractor is in breach of, or in default under, the Contract, Canada may convert a security deposit to Canada's own use.
- 2) If Canada converts a security deposit, the amount realized shall be deemed to be an amount due from Canada to the Contractor under the Contract.
- 3) Any balance of the amount realized that remains after payment of all losses, damage and claims of Canada and others shall be paid by Canada to the Contractor if, in the opinion of Canada, it is not required for the purposes of the Contract.

SUPPLEMENTARY CONDITIONS

SC01 PAYMENT FOR DESIGN CHANGES AND REVISIONS

1. Payment for any additional or reduced Design Services authorized by Canada prior to their performance, and for which a basis of payment has not been established at the time of execution of the Contract, shall be in an amount or amounts to be mutually agreed upon from time to time, subject to the Terms of Payment and the approval of Canada.
2. Where it is not possible, or appropriate, to agree upon a fixed price fee prior to the performance of the additional or reduced Design Services, payment shall be made on the basis of a time based fee as follows:
 - (a) The *Designer's* principals and executives, and other personnel approved in that capacity by Canada shall be paid at the hourly rates provided for in clause 1.3.4 of the Price Bid Form.
 - (b) The *Designer's* staff approved by Canada shall be paid at the hourly rate specified in Annex B..
 - (c) The normal working hours per day for *Designer's* principals, executives and the employees, shall be deemed to be seven and a half (7.5) hours of any day during which they are actually engaged in the performance of the *Design Services*.
 - (d) Travel time during normal working hours, that is related to the Project and authorized by Canada, shall be chargeable as time worked.
 - (e) The maximum amount(s) that applies (apply) to the *Design Services* to be carried out at time rates shall be as specified in the change request notice issued by Canada, which amount(s) shall not be exceeded without the prior authorization of Canada.
3. Subject to paragraph 5 below and prior to the performance of additional or reduced *Design Services* on the basis of a time based fee, the *Contractor* shall comply with any request made by Canada regarding persons to be employed by its *Designer* or its *Designer's sub-consultants* to provide the additional or reduced *Design Services*. In addition, Canada shall determine, based on industry practice and input from the Contractor, hourly rates for any of those persons for whom the relevant information does not appear in the Price Bid Form.
4. The *Contractor* shall, on request, submit to Canada for approval, the names, addresses, qualifications, experience and proposed roles of all persons, including principals, to be employed by its *Designer* to provide the *Design Services* for the Project and, on request, submit any subsequent changes to Canada for approval.
5. Payment for additional *Design Services* not identified at the time of execution of the Contract shall be made only to the extent that
 - (a) the additional *Design Services* are *Services* that are not included in stated *Design Services* in the *Contract*,
 - (b) the additional *Design Services* are required for reasons beyond the control of the Contractor, and
 - (c) any fee adjustment for *Design Services* resulting from an adjustment in the Construction Cost Estimate arising from the additional *Services* is not commensurate with the additional *Services* performed.
6. Disbursements

The following costs shall be included in the bid Price required to deliver the Work and shall not be reimbursed separately;

 - (a) Standard office expenses such as any photocopying, computer costs, Internet, long distance telephone and fax, including that between the Contractor's main office and branch offices or between the Contractor's offices and other team members offices;
 - (b) Travel time;
 - (c) Travel expenses; and
 - (d) Local project office.
 - (e) Deliverables identified in Design-Build Services and Specifications.

SC02 PROFESSIONAL LIABILITY INSURANCE REQUIREMENTS:

1. The Contractor shall ensure that appropriate Professional Liability insurance coverage is in place to cover the Designers and other consultants engaged for the services required in the performance of the Work. If required, the Contractor shall furnish evidence satisfactory to Canada of such insurance coverage and any renewals thereof.
2. 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.

SC03 INSURANCE TERMS

- 1) Insurance Contracts
 - (a) The Contractor must, at the Contractor's expense, obtain and maintain insurance contracts in accordance with the requirements of the Certificate of Insurance. Coverage must be placed with an Insurer licensed to carry out business in Canada.
 - (b) Compliance with the insurance requirements does not release the Contractor from or reduce its liability under the Contract. The Contractor is responsible for deciding if additional insurance coverage is necessary to fulfill its obligation under the Contract and to ensure compliance with any applicable law. Any additional insurance coverage is at the Contractor's expense, and for its own benefit and protection.
- 2) Period of Insurance
 - (a) The policies required in the Certificate of Insurance must be in force from the date of contract award and be maintained throughout the duration of the Contract.
 - (b) The Contractor must be responsible to provide and maintain coverage for Products/Completed Operations hazards on its Commercial General Liability insurance policy, for a period of six (6) years beyond the date of the Certificate of Substantial Performance.
- 3) Proof of Insurance
 - (a) Before commencement of the Work, and no later than thirty (30) days after acceptance of its bid, the Contractor must deposit with Canada a Certificate of Insurance on the form attached herein.
 - (b) Upon request by Canada, the Contractor must provide originals or certified true copies of all contracts of insurance maintained by the Contractor pursuant to the Certificate of Insurance.
- 4) Insurance Proceeds

In the event of a claim, the Contractor must, without delay, do such things and execute such documents as are necessary to effect payment of the proceeds.
- 5) Deductible

The payment of monies up to the deductible amount made in satisfaction of a claim must be borne by the Contractor.

SC04 WORKPLACE SAFETY AND HEALTH**1. EMPLOYER/PRINCIPAL CONTRACTOR**

- 1.1 The Contractor shall, for the purposes of the Safety Act and Regulations, Northwest Territories/Nunavut, and for the duration of the Work of the Contract:
 - 1.1.1 act as the Employer, where there is only one employer on the work site, in accordance with the Authority Having Jurisdiction;
 - 1.1.2 assume the role of Principal Contractor, where there are two or more employers involved in work at the same time and space at the work site, in accordance with the Authority Having Jurisdiction; and

- 1.1.3 agree, in the event of two or more Contractors working at the same time and space at the work site, without limiting the General Conditions GC2. and GC3., to Canada's order * to:
- 1.1.3.1 assume, as the Principal Contractor, the responsibility for Canada's other Contractor(s); or
- 1.1.3.2 accept that Canada's other Contractor is Principal Contractor and conform to that Contractor's Site Specific Health and Safety Plan.

* "order" definition: *after contract award, Contractor is ordered by a Change Order*

2. PERMITS, NOTIFICATIONS AND SAFETY PLAN

1. EMPLOYER/PRIME CONTRACTOR - for Work in the Northwest Territories/Nunavut

- 1.1 The Contractor shall, for the purposes of the Workplace Safety and Health Act and Regulations, Northwest Territories/Nunavut, and for the duration of the Work:

- 1.1.1 act as the Employer, where there is only one employer on the work site, in accordance with the Authority Having Jurisdiction;
- 1.1.2 assume the role of Prime Contractor, where there are two or more employers involved in work at the same time and space at the work site, in accordance with the Authority Having Jurisdiction; and
- 1.1.3 agree, in the event of two or more Contractors working at the same time and space at the work site, without limiting the General Conditions, to Canada's order * to:
- 1.1.3.1 assume, as the Prime Contractor, the responsibility for Canada's other Contractor(s); or
- 1.1.3.2 accept that Canada's other Contractor is Prime Contractor and conform to that Contractor's Site Specific Health and Safety Plan.

* "order" definition: *after contract award, Contractor is ordered by a Change Order*

2. SUBMITTALS

- 2.1 The Contractor shall provide to Canada:

- 2.1.1 prior to the pre-construction meeting, a transmittal and copy of a completed Notice of Project form PWGSC - TPSGC 458 (form will be provided to the proposed contractor prior to award), as sent to the Authority Having Jurisdiction (AHJ); and
- 2.1.2 prior to commencement of work and without limiting the terms of the General Conditions:
- 2.1.2.1 copies of all other necessary permits, notifications and related documents as called for in the scope of work/specifications and/or by the AHJ; and
- 2.1.2.2 a site specific Health and Safety Plan as requested.

NOTE: Please do not include any forms that include personal 3rd party information such as the names of the contractor's employees and their related claims information.

3. LABOUR AUTHORITY CONTACT:

The contact below represents the Labour Authority in the jurisdiction (AHJ). They are not representatives of the Workers Compensation.

Do not contact the people referenced below for issues pertaining to WCB or WCB Clearances. Those queries must be directed specifically to the WCB, and where the WCB has both a Labour and Compensation component, WCB issues must be directed to the Compensation/Employer Services sections.

NUNAVUT

Workers' Safety and Compensation
Northwest Territories and Nunavut
Prevention Services

Box 8888, Yellowknife, NT, X1A 2R3

Attention: Chief Industrial Safety Officer

Telephone: (867) 669- 4403 Facsimile: (867) 873- 0262

Solicitation No. - N° de l'invitation

ET025-181539/C

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

ET025-181539

Amd. No. - N° de la modif.

File No. - N° du dossier

Buyer ID - Id de l'acheteur

pwz102

CCC No./N° CCC - FMS No./N° VME

DECLARATION

DATE: _____

COMPANY NAME: _____

ADDRESS: _____

This company is exempt from the Northwest Territories/Nunavut Safety Act and Regulations requirement to have a formalized Health and Safety Policy and Program, on the basis that this company does not at the present time employ more than ten (10) full time employees, including those required on all current projects for all clients. By signing this Declaration the Contractor certifies they will remain in compliance with the identified AHJ's requirements regarding health and safety at the work site.

Current number of full time employees: _____

TITLE OF COMPANY OFFICER

SIGNATURE

SC05 INUIT BENEFITS PLAN INCENTIVE AND PENALTY CONDITIONS

1. Under the provisions of the proposed contract, where the contractor meets the guarantees specified and certified in his bid, the contractor will be paid the agreed contract price.
2. If the contractor fails to fulfill their certified training guarantee, an amount of up to .333% of the final contract value may be deducted from the hold back provisions. The Contractor will not be evaluated on their achievements. (Table 2A).
3. If the contractor does not meet the certified percentage of onsite Inuit employee hours worked on the Contract and fails to fulfill their onsite Inuit employment guarantees, an amount of up to .333% of the final contract value may be deducted from the hold back provisions. (Table 2B)
4. If the contractor does not meet the certified percentage of Inuit Sub-contractors/Suppliers, and fails to fulfill their Inuit sub-contractors/suppliers guarantees, an amount of up to .333% of the final contract value may be deducted from the hold back provisions. (Table 2C)
5. If the contractor hires additional onsite Inuit resources above the established employment guarantees that were certified in the bid, which results in Inuit employment, subject to the approval of the Departmental Representative, the contractor may be eligible to request an incentive bonus of up to .5% of the final contract value that may be paid to the contractor at the end of the project. (Table 1A)
6. If the contractor exceeds the percentage of Inuit Sub-contractors/Suppliers guarantees that were certified in the bid, subject to the approval of the Departmental Representative, the contractor may be eligible to request an incentive bonus of up to .5% of the final contract value that may be paid to the contractor at the end of the project. (Table 1B)
7. Contractors who exceed the IBP guarantee under one criterion but fall short on the other may be evaluated for a penalty and an incentive. The Inuit Incentive and Penalty Conditions as specified above will be assessed based on the formulas identified herein.
8. Canada will have the right to hold back, drawback, deduct or set off from and against the amounts of any monies owing at any time by Canada to the Contractor, any penalties owing and unpaid under this section.
9. Nothing in this section must be interpreted as limiting the rights and remedies which Canada may otherwise have under the Contract.
10. Canada reserves the right, at their sole discretion, to reduce or eliminate penalties if it can be clearly demonstrated that significant efforts were made to meet the AOC / IBP guarantee and the minimum requirements could not be met due to circumstances out of the Contractor's control.

NOTE: "FINAL CONTRACT VALUE" for the purposes of the penalty calculation the final contract value includes all amendments to the original award amount unless identified as being excluded from the IBP calculation at the time of change order or amendment negotiation.

| INUIT EMPLOYMENT INCENTIVE AND PENALTY CHECKLIST CONTRACTOR: _____ | | | |
|--|--|---------------|---------------|
| STEP# | FINAL STATISTICS | % PROPOSED | % ACHIEVED |
| 1 | Percentage of Inuit Labour Person Hours | | |
| 2 | Percentage of Inuit Sub-Contracting/Supplier costs | | |
| 3 | Final Contract Value (no GST) | \$ | |
| 4 | Certified Inuit training guarantee met or fell short? Met - No applicable penalty. Shortfall - Contractor may be penalized up to .333% of the final contract value Proceed to Table 2A | | |
| 5 | Certified Onsite Inuit employment guarantee met, exceeded or fell short? Met - No applicable penalty Shortfall - Contractor may be penalized up to .333% of the final contract value Proceed to Table 2B | | |
| 6 | Certified Inuit Sub-contracting/Supplier guarantee met, exceeded or fell short? Met - No applicable penalty Shortfall - Contractor may be penalized up to .333% of the final contract value Proceed to Table 2C | | |
| 7 | COMMENTS: | | |

| TABLE 2A - ASSESSMENT OF INUIT TRAINING PENALTY | | | |
|--|---|---------------|--------------|
| ITEM# | REQUIREMENT | WEIGHT | SCORE |
| 1 | <p>CONTRACTOR DUE DILIGENCE:</p> <p>Case-by-case-consideration is given to contractor's ability to demonstrate diligent efforts to achieve their Inuit Training guarantees.</p> <p>Points awarded for contractor due diligence based on the following scale:</p> <p>0-13 points - Contractor demonstrated little to no effort and made no attempt to meet the IBP training guarantee. 14-27 points - Contractor demonstrated moderate effort while attempting to meet the IBP training guarantee. 28-40 points - Contractor demonstrated outstanding effort while attempting to meet the IBP training guarantee.</p> | 40 | |
| 3 | TOTAL ASSESSED SCORE | 40 | |
| 4 | <p>TOTAL CALCULATED PENALTY: (40 - total assessed score)% x (Final contract value) x .333%</p> | \$ | |
| 5 | COMMENTS/JUSTIFICATIONS: | | |
| 6 | <p>SIGNATURE OF EVALUATION PANEL:</p> <p>Departmental Representative: _____</p> <p>Project Authority: _____</p> <p>Contracting Officer: _____</p> | | |

| TABLE 2B - ASSESSMENT OF INUIT LABOUR PENALTY | | | |
|--|--|---------------|--------------|
| ITEM# | REQUIREMENT | WEIGHT | SCORE |
| 1 | <p>Calculate the percentage of guarantee achieved for onsite Inuit content based on the following formula, where:</p> <p>Guarantee percentage = $\frac{\text{Achieved}}{\text{Proposed}} = \frac{\quad}{\quad} \% * 60\%$</p> <p>Notes: percentage of 50% or less receives zero points</p> | 60 | |
| 2 | <p>CONTRACTOR DUE DILIGENCE:</p> <p>Case-by-case-consideration is given to contractor's ability to demonstrate diligent efforts to achieve onsite Inuit employment guarantees.</p> <p>Points awarded for contractor due diligence based on the following scale:</p> <p>0-13 points - Contractor demonstrated little to no effort and made no attempt to meet the IBP employment guarantee. 14-27 points - Contractor demonstrated moderate effort while attempting to meet the IBP employment guarantee. 28-40 points - Contractor demonstrated outstanding effort while attempting to meet the IBP employment guarantee.</p> | 40 | |
| 3 | TOTAL ASSESSED SCORE | 100 | |
| 4 | TOTAL CALCULATED PENALTY: (100 - total assessed score)% x (Final contract value) x .333% | \$ | |
| 5 | COMMENTS/JUSTIFICATIONS: | | |
| 6 | <p>SIGNATURE OF EVALUATION PANEL:</p> <p>Departmental Representative: _____</p> <p>Project Authority: _____</p> <p>Contracting Officer (PWGSC): _____</p> | | |

| TABLE 2C - ASSESSMENT OF INUIT SUB-CONTRACTING/SUPPLIER PENALTY | | | |
|--|---|--------|-------|
| ITEM# | REQUIREMENT | WEIGHT | SCORE |
| 1 | <p>Calculate the percentage of guarantee achieved for Inuit content based on the following formula, where: Guarantee percentage = $\frac{\text{Achieved}}{\text{Proposed}}$ = _____ % * 60%</p> <p>Note: Guarantee percentage of 50% or less receives zero points.</p> | 60 | |
| 2 | <p>CONTRACTOR DUE DILIGENCE:</p> <p>Case-by-case-consideration is given to contractor's ability to demonstrate diligent efforts to achieve Inuit sub-contracting / supplier guarantees.</p> <p>Points awarded for contractor due diligence based on the following scale: 0-13 points - Contractor demonstrated little to no effort and made no attempt to meet the IBP sub-contracting/supplier guarantees. 14-27 points - Contractor demonstrated moderate effort while attempting to meet the IBP sub-contracting/supplier guarantees. 28-40 points - Contractor demonstrated outstanding effort while attempting to meet the IBP sub-contracting/supplier guarantees.</p> | 40 | |
| 3 | TOTAL ASSESSED SCORE | 100 | |
| 4 | <p>TOTAL CALCULATED PENALTY: (100 - total assessed score)% x (Final contract value) x .333%</p> | \$ | |
| 5 | COMMENTS/JUSTIFICATIONS: | | |
| 6 | <p>SIGNATURE OF EVALUATION PANEL:</p> <p>Departmental Representative: _____ Project Authority: _____ Contracting Officer (PWGSC): _____</p> | | |

SRE SECTION 3: TECHNICAL EVALUATION TABLE - APPENDIX 1

A consensus 0-10 rating score will be determined by the board for each criterion. In order for each board member to share a common understanding of the evaluation scale, the following table will be used:

| NON RESPONSIVE 0 point | INADEQUATE 1 point | POOR 2 - 3 points | WEAK 4 points | JUST ACCEPTABLE 5 points | ACCEPTABLE 6 - 7 points | GOOD 8 points | VERY GOOD 9 points | EXCELLENT 10 points |
|---|---|--|---|--|--|--|--|---|
| Did not submit information which could be evaluated | Absolutely inadequate | Slightly or substantially below the desirable minimum | Just fails to meet the desirable minimum | Just meets the desirable minimum | Meets the desirable minimum | Slightly exceeds the desirable minimum | More than satisfies desirable minimum | Exceptionally strong proposal |
| | Weaknesses can't be corrected | Generally doubtful that weaknesses can be corrected | Weaknesses can be corrected | Weaknesses can easily be corrected | No significant weaknesses | No significant weaknesses | No apparent weaknesses | No apparent weaknesses |
| | Proponent lacks qualifications and experience | Proponent generally lacks qualifications and experience | Proponent just below minimum qualifications and experience | Proponent has minimum qualifications and experience | Proponent is qualified and experienced | Proponent is well qualified and experienced | Proponent is highly qualified and experienced | Proponent is exceptionally qualified and experienced |
| | Team proposed is not likely able to meet requirements | Team is weak - either missing components or overall experience is weak | Team not quite capable of fulfilling requirements as presented | Team capable of just fulfilling requirements | Team covers all components and will likely meet requirements | Team covers all components and more than likely will meet requirements | Strong team - some members have previously worked together | Exceptional team - has worked well together before on comparable work |
| | Sample projects not related to this project's needs | Sample projects generally not related to this project's needs | Sample projects only marginally related to this project's needs | Sample projects somewhat related to this project's needs | Sample projects generally related to this project's needs | Sample projects are related to this project's needs | Sample projects directly related to this project's needs | Took the lead in projects directly related to this project's needs |
| | Extremely poor, insufficient to meet performance requirements | Little capability to meet performance requirements | Just below acceptable capability | Minimum acceptable capability, should meet minimum performance | Average capability, should be adequate for effective results | Above average capability | Superior capability, should ensure effective results | Exceptional capability, should ensure extremely effective results |

CERTIFICATE OF INSURANCE – ANNEX D



Travaux publics et
Services gouvernementaux
Canada

Public Works and
Government Services
Canada

| | |
|--|---|
| Description and Location of Work MCTS Building Boiler Replacement and Condensing Unit Protection, Iqaluit, Nunavut | Contract No. ET025-181539/001/PWZ Project No. R.084110.001 |
|--|---|

| | | | | |
|----------------------------------|-----------------------|------|----------|-------------|
| Name of Insurer, Broker or Agent | Address (No., Street) | City | Province | Postal Code |
|----------------------------------|-----------------------|------|----------|-------------|

| | | | | |
|------------------------------|-----------------------|------|----------|-------------|
| Name of Insured (Contractor) | Address (No., Street) | City | Province | Postal Code |
|------------------------------|-----------------------|------|----------|-------------|

Additional Insured
Her Majesty the Queen in Right of Canada as represented by the Minister of Public Works and Government Services

| Type of Insurance | Insurer Name and Policy Number | Inception Date D / M / Y | Expiry Date D / M / Y | Limits of Liability | | |
|-------------------------------------|--------------------------------|-----------------------------|--------------------------|---------------------|--------------------------|--------------------------------|
| | | | | Per Occurrence | Annual General Aggregate | Completed Operations Aggregate |
| Commercial General Liability | | | | \$ | \$ | \$ |
| Umbrella/Excess Liability | | | | \$ | \$ | \$ |
| | | | | | | |

I certify that the above policies were issued by insurers in the course of their Insurance business in Canada, are currently in force and include the applicable insurance coverage's stated on page 2 of this Certificate of Insurance, including advance notice of cancellation / reduction in coverage.

| | |
|--|------------------|
| | |
| Name of person authorized to sign on behalf of Insurer(s) (Officer, Agent, Broker) | Telephone number |
| | |
| Signature | Date D / M / Y |

General

The insurance policies required on page 1 of the Certificate of Insurance must be in force and must include the insurance coverage listed under the corresponding type of insurance on this page.

The policies must insure the Contractor and must include Her Majesty the Queen in Right of Canada as represented by the Minister of Public Works and Government Services as an additional Insured.

The insurance policies must be endorsed to provide Canada with not less than thirty (30) days notice in writing in advance of a cancellation of insurance or any reduction in coverage.

Without increasing the limit of liability, the policies must protect all insured parties to the full extent of coverage provided. Further, the policies must apply to each Insured in the same manner and to the same extent as if a separate policy had been issued to each.

Commercial General Liability

The insurance coverage provided must not be substantially less than that provided by the latest edition of IBC Form 2100.

The policy must either include or be endorsed to include coverage for the following exposures or hazards if the Work is subject thereto:

- (a) Blasting.
- (b) Pile driving and caisson work.
- (c) Underpinning.
- (d) Removal or weakening of support of any structure or land whether such support be natural or otherwise if the work is performed by the insured contractor.

The policy must have the following minimum limits:

- (a) **\$5,000,000** Each Occurrence Limit;
- (b) **\$10,000,000** General Aggregate Limit per policy year if the policy contains a General Aggregate; and
- (c) **\$5,000,000** Products/Completed Operations Aggregate Limit.

Umbrella or excess liability insurance may be used to achieve the required limits.



Design-Builder Services

TERMS OF REFERENCE

MCTS Building Boiler Replacement and Condensing Unit Protection

For:
Department of Fisheries and
Oceans Services Canada
Iqaluit, Nunavut

October 02, 2017



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I PROJECT DESCRIPTION

I.1 GENERAL

I.1.1 SERVICES

- .1 Public Services and Procurement Canada (PC) requires the services of a General Contracting firm, acting in the capacity of Design Builder, together with a multi-disciplinary team of sub-consultant Engineers for the provision of service required for this project.

I.1.2 THE PWGSC GENERAL PROCEDURES AND STANDARDS DOCUMENT (GP&S)

- .1 The Terms of Reference (TOR) document must be used in conjunction with the GP&S, as the two documents are complimentary.
- .2 The TOR describes project-specific requirements, services and deliverables while the GP&S document outlines with minimum standards and procedures common to all projects.
- .3 In the case of a conflict between the two documents, the requirements of the TOR override the GP&S Document.

I.1.3 PROJECT INFORMATION

| Project Information | |
|----------------------------|----------------------------------|
| Project Title: | MCTS Building Boiler Replacement |
| Project Address: | Iqaluit, NU |
| Solicitation Number: | TBD |
| Contract Number: | TBD |
| PWGSC Project Number: | R.084110.001 |
| PWGSC Contracting Officer: | TBD |



1.2 BACKGROUND INFORMATION

1.2.1 NEED & GOALS

- .1 This project requires Design Build services for the replacement of one (of two) existing Heating boilers and the physical protection for two outdoor condensing units at the MCTS Building in Iqaluit, Nunavut.
 - .1 Brief background:
 - .1 Part one: One of the two original boilers was replaced as an emergency repair a few years ago. The scope of this portion of the project is to replace the second existing boiler to match the newly replaced boiler and assess/determine if the chimney and breeching to the boilers also needs modifications/replacement.
 - .1 Original boiler (slated for replacement) is an FP Industries model # ES-0-12-4. The newly replaced boiler is a Weil-McLain model 480. Both boilers are fuel oil fired.
 - .2 Confirm code compliance of the existing chimney and breeching to accommodate the new and newly replaced boilers. Modify/replace as required.
 - .2 Part Two: Two outdoor condensing units are located at grade level near the building. The units are subjected to falling ice from the roof and the potential of damage from parking lot traffic. See Appendix for pictures.
 - .2 Boiler: The minimum capacity of the replacement boiler should match the make/capacity of the newly replaced boiler and verify capacity based on building needs. Ideally, a boiler that is similar in mechanics/dimensions to the newly replaced existing boiler should be provided since no modifications would have to done to the existing concrete pad. Stocking of replacement parts should also be taken into consideration when sizing/specifying the replacement boiler manufacturer.
 - .3 Boiler: Confirm, site verify and trace existing power, controls, wiring, cables and conduits for route, location, loads, sizes, and all required details.
 - .4 Condensers: The two outdoor condensing units are in good working order and do not require replacement. The scope of this work is to design a form of physical protection/elevation by means of a structural barrier and/or bollards for the units to eliminate the dangers of falling ice and parking lot traffic. The units will need to remain outdoors for operational purposes.
 - .5 Condensers: Confirm, site verify and trace existing power, controls, wiring, cables and conduits.

1.2.2 USER DEPARTMENT NEED

- .1 Fisheries and Oceans Canada (DFO) has identified the Marine Communications Traffic Services (MCTS) building located in Iqaluit, Nunavut has building mechanical deficiencies that require investigation and resolution.
 - .1 The goal of the project is to undertake investigation/construction of the current boiler heating system to determine what is required to replace the older boiler to match the



newly replaced. This work will also include the assessment of the chimney and breeching to determine if it also requires code upgrading/replacement. Additionally, the condensing units outside require layout modifications to protect them from falling ice and vehicle traffic.

- .2 Once recommendations have been proposed, considered and agreed upon, creation of construction documents and specifications. The Design Builder will complete the construction/built works using modern techniques and equipment as well as integrated phased construction methodologies in order to meet the project objectives.

1.2.3 USER DEPARTMENT

- .1 The User Department referred to throughout the TOR is Fisheries and Oceans Canada (DFO)
- .2 DFO Mission
 - .1 It is our mission, as DFO employees, to deliver to Canadians the following outcomes:
 - .1 Safe and Accessible Waterways;
 - .2 Healthy and Productive Aquatic Ecosystems; and
 - .3 Sustainable Fisheries and Aquaculture.
 - .2 In working toward these outcomes, the Department will be guided by the principles of sound scientific knowledge and effective management.

1.2.4 EXISTING CONDITIONS

- .1 The building was constructed 1992 for the Canada Coast Guard (CCG) for use as seasonal communications centre. The building use has not changed substantially since that time. The building is a one storey (with mechanical mezzanine level) steel frame building with a rectangular shaped footprint and a building area of approximately 665sm. The building is occupied from approximately June 01 to Dec 01 of each year. When in use, the building is occupied 24/7, with a staff of 4 during the day shift, a staff of 2 during evening shift and 1 staff member on night shift.
- .2 Currently there is no on-site custodian. DFO Real Property Management contracts with PSPC to provide building management services. Local PSPC staff are on site every other day to perform visual inspections of the building.

1.2.5 CONSTRAINTS AND CHALLENGES



- .1 The Design Builder will be required to become familiar with the project site and obtain local information as required.
- .2 All site visits must be arranged through the Departmental Representative.
- .3 Environmental conditions must be kept under control during all phases of the work.
- .4 The project scope must be tailored to meet the User Department's budget. Diligent cost estimating and cost control is required.
- .5 Design Builder's key personnel must be available to respond to emergencies within 4 hours.
- .6 Due to the remote location of the site and the specific operation schedule, specific consideration to be paid to scheduling investigations and work.

1.2.6 HAZARDOUS MATERIALS

- .1 No hazardous materials have been identified or are anticipated at this site

1.2.7 PROJECT DELIVERY APPROACH

- .1 This project is a design-build approach.

1.3 SUMMARY OF DESIGN WORK

1.3.1 GENERAL

- .1 The design-build intent of the project is to replace the existing heating boiler with a new unit and related incidental piping system that:
 - .1 Is energy and water efficient;
 - .2 Is sized to match the capacity of the existing unit and building heating requirements;
 - .3 Meets current Codes, Standards and guidelines;
 - .4 Optimizes performance of the system;
 - .5 Is designed for ease of maintenance;
 - .6 Minimize long-term maintenance costs through provision of suitable corrosion prevention and durability features;
 - .7 Use industry proven materials and no experimental materials;
 - .8 Is cost effective considering both initial cost and operation & maintenance costs over a life cycle of 25 years;
 - .9 New power and controls sized to accommodate the new boiler electrical load and control functions if required;
 - .10 Maintain existing heating system operational at all times unless accepted otherwise. Keep interruptions to a minimum, at a time and duration suitable to the users. Provide eight days prior notification (min.) and obtain approval in writing before proceeding of any power and/or system interruptions.



- .2 The design-build intent of the second part of this project is to design, construct and install protection (structure) for the outdoor condensing units that:
 - .1 Suitable for the location;
 - .2 Is sized to match the physical and load capacities of the existing condensing units;
 - .3 Meets current Codes, Standards and guidelines;
 - .4 Optimizes performance of the system;
 - .5 Is designed for ease of maintenance;

I.4 SUMMARY OF SERVICES AND QUALIFICATIONS

I.4.1 GENERAL SERVICES

- .1 The Design Builder shall deliver complete construction services in accordance with the duties outlined in the terms and conditions of the contract and the requirements of this Terms of Reference.
- .2 The Design Builder's consultant team will provide a full consulting team including (but not limited to) the following consultant services and specialties:
 - .1 Professional Engineering Services
 - .1 Mechanical Engineering
 - .2 Electrical Engineering
 - .3 Structural Engineering
 - .2 Commissioning
 - .3 Cost Estimating
 - .4 Controls (As per existing BMS system)

I.5 SCHEDULE

I.5.1 GENERAL

- .1 The project is to be delivered, ready for acceptance in accordance with the project milestones identified below.
- .2 Completion dates shown are relative to an assumed start date of January 01, 2018.
- .3 Prepare a Project Schedule, in accordance with the milestone list.



1.5.2 ANTICIPATED MILESTONE DATES

| Project Phase | Milestone Completion Date |
|---|---------------------------|
| Consultant Contract award | January 03, 2018 |
| Preliminary Design Phase (1 weeks) | January 11, 2018 |
| 99% Design Package (3 weeks) | January 29, 2018 |
| 99% Design Package Review (1 week) | February 05, 2018 |
| Final Construction Documents (2 weeks) | February 19, 2018 |
| Construction Start (2 weeks) | March 05, 2018 |
| Substantial Completion (16 weeks) | June 25, 2018 |
| Commissioning Completion and Acceptance (3 weeks) | July 23, 2018 |
| Project Closeout (4 weeks) | August 27, 2018 |

1.6 COST

1.6.1 CONSTRUCTION BUDGET

- .1 The construction estimate includes all Design Builder (DB) related costs including construction, DB Project Management fees, administration costs, consultant fees, Risk Allowance and Escalation and is in 'Budget-Year (Current)' dollars.
- .2 The construction cost is estimated to be \$ 78,000.00.

1.7 DOCUMENTATION

1.7.1 AVAILABLE FOR THE CONSULTANT

- .1 Copies of all pertinent documentation will be made available to the Design Builder from site.
- .2 Limited as-built drawings and Operation & Maintenance Manuals may be available on the project site and the Design Builder will be responsible for verifying the accuracy of the information incorporated into the design;
- .3 The Design Builder will NOT be provided with AutoCAD floor plans of the existing building.

1.7.2 DISCLAIMER



- .1 Reference information will be available in the language in which it is written.
- .2 The documentation may be unreliable and is offered, “as is” for the information of the Consultant.

1.8 CODES, ACTS, STANDARDS, REGULATIONS

- .1 A listing of Codes, Acts, Standards and Guidelines potentially applicable to this project are contained in the GP&S Document.
- .2 Commissioning (Cx) to comply, but not limited to:
 - .1 CAN/CSA Standards Z320-11
 - .2 ASHRAE Standards 202-2013 & Guideline 0-2005 – The Commissioning Process
 - .3 IEEE Standards
- .3 The Authorities Having Jurisdiction (AHJ) on this project are:
 - .1 The local AHJs
 - .2 Department of Labour
 - .3 The PWGSC Fire Protection Engineer
 - .4 Treasury Board of Canada
- .4 The Design Builder must identify, analyze, design and construct the project in accordance with the requirements of all AHJs and all applicable Codes, Acts, Standards and Guidelines and Legislation.
 - .1 The applicability of various Codes, Acts, Standards and Guidelines listed in the GP&S document arise out of direct and indirect references in documents which apply to Federal buildings, such as the Canada Labour Code.
 - .2 The Design Build team must be fully versed with the legislation and requirements that are unique to Federal Government buildings in Canada.
 - .3 The Design Build team must be fully versed with the legislation and requirements that are unique to Federal Government projects tendered through Public Works and Government Services Canada.



2 REQUIRED SERVICES

2.1 GENERAL REQUIREMENTS

2.1.1 SERVICES

- .1 Preliminary Design Service; to provide a Preliminary Design Report;
- .2 Design Service: to provide design and construction documents for review at the 99% stages, as well as, final construction documents at the 100% completion stage;
- .3 Construction Service;
- .4 Commissioning Service;
- .5 Post Construction Service.

2.2 PROJECT REVIEW AND APPROVAL

2.2.1 GENERAL

- .1 Comply with all applicable laws and regulatory requirements as required by the General Conditions of the Contract.

2.2.2 FEDERAL GOVERNMENT

- .1 The federal authorities having jurisdiction over this project are:
 - .1 PWGSC Fire Protection Engineer for fire prevention engineering services and life safety;
 - .2 User Department for project program review;
 - .3 PWGSC.

2.2.3 REVIEWS, APPROVALS AND PRESENTATIONS



- .1 Each submission at each stage of the project is subject to reviews by, the Departmental Representative, the User Department site personnel, the User Department technical experts and the PWGSC Architectural and Engineering Centre of Expertise (AECOE).
- .2 The purpose of these reviews is to ascertain for PWGSC and the User Department that the Consultant Team has reasonably fulfilled the objectives of the project.
- .3 PWGSC will not provide solutions, detailed comments and/or coordination for the Consultant Team.
- .4 Work that does not meet the objective(s) of the project will be rejected; rejected work will require further design (including redesign), coordination and documentation, all at the Design Build Team's expense.
- .5 For the AECOE review at each stage:
 - .1 Review submissions to be posted on Buzzsaw in PDF format.
 - .2 Expected turn around time for reviews is one (1) week.
 - .3 The consultant team will receive review comments in the form of an editable MS Word document or MS Excel document.
 - .4 The consultant shall provide a single coordinated written response to each of the specific review comments made by AECOE.

2.3 PRELIMINARY DESIGN SERVICE

2.3.1 GENERAL

- .1 The Consultant Team will review and analyze all available project information, consult with the Departmental Representative, and deliver a comprehensive Preliminary Engineering Report.

2.3.2 SCOPE AND ACTIVITIES

- .1 Visit the site.
- .2 Analyse the project requirements including any amendments.
- .3 Review all other available existing material related to the project including requirements identified in the TOR.
- .4 Identify and verify all Authorities Having Jurisdiction (AHJ) over the codes, regulations and standards that apply to the projects.
- .5 Identify and analyze all Codes, Acts, Standards and Guidelines that apply to this project, including any impact on requirements for fire separations and associated fire stopping of service penetrations.
- .6 Identify all additional information that will be needed to deliver the project.
- .7 Confirm, site verify and trace existing power, controls, wiring, cables and conduits for route, location, loads, sizes, details and configuration for the two boiler system from the units to the existing power and control panels.



- .8 Confirm the Commissioning requirements:
 - .1 Develop a preliminary Cx Plan;
 - .2 Propose preliminary Cx Manual outlined & sign-off;
- .9 Provide cost estimates.

2.3.3 DELIVERABLES

- .1 A Preliminary Engineering Report that will contain at a minimum:
 - .1 An Executive Summary;
 - .2 Report on existing mechanical, electrical and controls findings on as-is drawings;
 - .3 Necessary sections to document and present the complete scope of works;
 - .4 An updated schedule;
 - .5 Preliminary Cx documents that should include: (As required)
 - .1 Cx Plan

2.4 DESIGN SERVICES

2.4.1 GENERAL

- .1 The objective of this stage is to translate the Preliminary Design into a fully functioning design complete with all construction drawings and specifications for review/approval.
- .2 The Design Builder must obtain written authorization from the Departmental Representative before proceeding with each deliverable stage of the Construction Documents.

2.4.2 SCOPE AND ACTIVITIES

- .1 The Design Builder shall:
 - .1 Create construction documents in accordance with the GP&S Document.
 - .2 Specify the required information and details to include with record As-built drawings, specifications and maintenance manuals including:
 - .1 Power and controls conduits, wires and cables sizes, types, route, location junction and/or pull boxes, etc;
 - .2 Equipment ampacity loads;
 - .3 Electrical shall not be limited to:
 - .1 Disconnect/Removal (If required) of the existing power and controls wiring from the boiler being replaced to the existing power and controls panels. Replace (If required) with complete new wiring in existing raceways where applicable or provide new.
 - .2 Wiring methods (power and controls) to consist of wiring and conduit with water tight fittings and connectors (steel)



- .3 All wiring to be copper and power wiring shall be minimum #12 awg in 21mm conduit (min.). Controls wiring and cables to be shielded or non-shielded as per manufacturer recommendations.
 - .4 Each 120 volts circuit shall have a dedicated neutral conductor.
 - .5 Run a new insulated #10 grounding conductor with each new and existing conduit run.
 - .6 Keep power and controls on dedicated conduit runs.
 - .7 Colour code conduits at 5 meters intervals and when enter and exit walls.
 - .8 Lamacoid nameplates (riveted or screw) to all equipment and sized to match building standards or as directed. Designations shall identify the equipment, panel, voltage and circuit fed from.
 - .9 New disconnect switch (line voltage) for the new boiler unit.
 - .10 Design to indicate power and controls conduit/wiring route, location, recommended minimum conduit, wire/cable size, types, etc.
- .4 Design/construct according to the budget and schedule.
 - .5 Update the project schedule.
 - .6 Update the following documents:
 - .1 Cx Plan
 - .7 Develop Cx Report Format including Cx Sheets & obtain sign-off.



2.4.3 DELIVERABLES

- .1 99% complete Construction Documents, fully coordinated as if ready for tender:
 - .1 The Design Builder shall submit documents to the PWGSC Departmental Representative;
 - .2 The submittal shall include:
 - .1 Construction Drawings:
 - .1 Drawings should reflect 99% completeness with a complete design without any unfinished details.
 - .2 Complete Specifications:
 - .1 Specifications should be complete with all sections and thoroughly coordinated with the Drawings.
 - .3 Signed-off Cx documents:
 - .1 Cx Plan;
 - .4 Signed-off Cx Report Format including Cx Sheets;
 - .2 Final (100%) Issued for Construction Documents:
 - .1 This submission incorporates all revisions required by the review of the previous submission.
 - .2 The Design Builder shall submit documents to the Departmental Representative, PWGSC Fire Protection Engineer, local municipality, or any other Authority having jurisdiction.
 - .3 The submittal shall include:
 - .1 An updated project schedule;
 - .2 Construction Drawings and Specifications;
 - .1 As per the GP&S Document
 - .3 Response to PWGSC written comments of previous submittal;
 - .4 Advise the Departmental Representative of all issues raised by other officials and all Consultants' responses;

2.5 CONSTRUCTION SERVICES

2.5.1 GENERAL

- .1 The Design Builder shall deliver complete construction services in accordance with the duties outlined in the Terms and Conditions of the contract and the requirements of this Terms of Reference..

2.5.2 SCOPE AND ACTIVITIES



- .1 The Design Builder/Consultants shall:
 - .1 Provide field reviews (Minimum 2) as required to fulfil the Design Builder/Consultant's professional obligations to monitor the construction activities throughout the construction period and keep Departmental Representative informed of work progress:
 - .1 Reject unsatisfactory work;
 - .2 Provide written reports;
 - .2 Review shop drawings and provide copies to the Departmental Representative.
 - .3 Permits:
 - .1 Assist the Contractor and provide required documentation in order to obtain the building permit.
 - .4 Site Visit/Commissioning for Boiler Replacement:
 - .1 Witness, verify and approve the test before and after execution.
 - .5 For Commissioning Services for Boiler Replacement:
 - .1 Review Contractor's submittals:
 - .1 Update Cx Plan;
 - .2 Complete Forms;
 - .2 Update & submit for Department Representative & respond to commentary and provide further updates:
 - .1 Cx Report: Boiler Replacement
 - .2 System O&M Manual
 - .3 Outstanding / seasonal activities



2.6 POST CONSTRUCTION SERVICE

2.6.1 GENERAL

- .1 The purpose of this phase is to provide all final documents required for project close out.

2.6.2 SCOPE AND ACTIVITIES

- .1 Project Close-out Services:
 - .1 Revise documentation to reflect all changes, revisions and adjustments after completion of commissioning.
 - .2 Prepare record drawings (CADD) and specifications based on Contractor's as-builts.
 - .3 Submit Final copies:
 - .1 O&M Manual
 - .2 Cx Report
 - .4 Participate in Lessons Learned workshops if requested.
- .2 Warranty Services:
 - .1 Participate in warranty inspections with Departmental Representative and Contractor.
 - .2 Complete all required repairs related to warranty inspection.
 - .3 Provide Final Warranty Review report.

2.6.3 DELIVERABLES

- .1 Warranty Deficiency List; sign off for completed items;
- .2 As-Built and Record Drawings and As-Built Specifications (soft and hard copies);
- .3 Signed Final Cx Manual - refer to definition CAN/CSA-Z320-11, including Signed-off Final Commissioning Report;
- .4 Sign-off on Warranty.



3 PROJECT ADMINISTRATION

3.1 GENERAL

- .1 In addition to adhering to the general project administration requirements contained in section 2 of the GP&S document, the Consultant shall comply with the project specific requirements in this section.

3.1.2 LANGUAGE

- .1 [No variation]

3.1.3 MEDIA

- .1 [No variation]

3.1.4 PROJECT MANAGEMENT

- .1 [No variation]

3.1.5 LINES OF COMMUNICATION

- .1 [No variation]

3.1.6 MEETINGS

- .1 [Define frequency and location and type of meetings]

3.1.7 CONSULTANT RESPONSIBILITIES

- .1 [No variation]

3.1.8 PWGSC RESPONSIBILITIES

- .1 [No variation]

3.1.9 USER DEPARTMENT RESPONSIBILITIES

- .1 [No variation]

3.1.10 REVIEW AND APPROVAL BY PROVINCIAL AND MUNICIPAL AUTHORITIES

- .1 [No variation]

3.1.11 BUILDING PERMITS AND OCCUPANCY PERMITS



.1 [No variation]

3.1.12 TECHNICAL AND FUNCTIONAL REVIEWS

.1 [No variation]



4 DEFINITIONS

4.1 GENERAL

4.1.1 BASIS OF DESIGN

- .1 CSA Z320 Article 3, Definitions

4.1.2 COMMISSIONING ISSUES (AND RESOLUTION) LOG

- .1 Log contains description of issues and variance with OPR and BOD;
 - .1 On an ongoing basis the log maintains status of current and resolved issues
- .2 Issues are identified and tracked as encounter during all design phases, construction and operations of the facility;
- .3 Issues Log is included as part of the monthly construction phase reporting on the Cx Plan;
- .4 For proposed information to be documented refer to ASHRAE Guideline, The Commissioning Process.

4.1.3 COMMISSIONING MANUAL (Cx MANUAL)

- .1 CAN CSA-Z320-11 Article 4.9.2, Commissioning Manual

4.1.4 COMMISSIONING PLAN (Cx PLAN)

- .1 CAN CSA-Z320-11 Article 4.2.3 Commissioning Plan
- .2 Updated in line with the phase of the project
- .3 Tracked & updated Cx Risk Assessments

4.1.5 COMMISSIONING PROCESS

- .1 CAN CSA-Z320-11

4.1.6 COMMISSIONING REPORT (Cx REPORT)

- .1 Content of Cx Manual;
- .2 Typical information to include at a minimum:
 - .1 A Consultant statement that systems have been completed in accordance with the contract documents and that the systems are performing in accordance with the final owner's project requirements (OPR) document;
 - .2 Identification and discussion of any substitutions, compromises, or variances between the final design intent, contract documents and as-built conditions;
 - .3 Description of components and systems that exceed owner's project requirements and those which do not meet the requirements and why;
 - .4 Summary of all issues resolved and unresolved and any recommendations for resolution;
 - .5 Post-construction activities and results including deferred & seasonal testing results, test data reports and additional training documentation;



- .6 Lessons learned for future commissioning project efforts;
- .3 The final commissioning report will be a one of critical reference and benchmark document for future re-commissioning of the facility.

4.1.7 OWNER PROJECT REQUIREMENTS (CX OPR)

- .1 CSA Z320 Article 3, Definitions

4.1.8 COMMISSIONING SPECIALIST

- .1 Cx Specialist/Cx Process Manager is an identity who is a Professional, Subject Matter Expert and independent of the design and construction team. May be identified as an overall Cx Process Manager and/or be discipline specific.



5 SUPPORTING DOCUMENTS

5.1 APPENDICES

- .1 GC GP&S: Government of Canada General Procedures and Standards
- .2 Pictures of Boilers and condensing Units.

5.2 REFERENCE

- .1 National Master Specification (NMS):
 - .1 <http://www.tpsgc-pwgsc.gc.ca/biens-property/ddn-nms/index-eng.html>
- .2 CAN/CSA Standards Z320-11:
 - .1 <http://www.csa.ca/cm/ca/en/standards>
- .3 IEEE Standards:
 - .1 <https://standards.ieee.org/>
- .4 ASHRAE Standards 202-2013 & Guideline 0-2005 – The Commissioning Process:
 - .1 <https://www.ashrae.org/resources--publications/bookstore/commissioning-essentials>



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GENERAL PROCEDURES & STANDARDS

For Professional & Design Services

MMXI Edition



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I INTRODUCTION

I.1 GENERAL PROCEDURES AND STANDARDS

I.1.1 GENERAL

- .1 These PWGSC *General Procedures and Standards* (P&S) have been developed to:
 - .1 Facilitate the development of a rational, well-documented design process; and
 - .2 Ensure compliance with federal government standards, PWGSC Policies and Treasury Board directives.

I.1.2 HARMONIZATION WITH THE TERMS OF REFERENCE (TOR)

- .1 The P&S document must be used in conjunction with the TOR, as the two documents are complimentary.
- .2 The TOR describes project-specific requirements, services and deliverables while the GP&S document outlines with minimum standards and procedures common to all projects.
- .3 In the case of a conflict between the two documents, the requirements of the TOR override this document.

I.2 PROJECT DELIVERY

I.2.1 GENERAL REQUIREMENTS

- .1 The project delivery requirements outlined in this section are applicable to the design and construction of all PWGSC projects in Western Region, unless otherwise indicated in the TOR.
- .2 Under the direction of the Consultant, the Consultant team shall provide fully integrated and coordinated professional and design services for the delivery of a project, in accordance with the requirements in the TOR and as contained herein.
- .3 The Consultant must:
 - .1 Obtain written authorization from the Departmental Representative before proceeding from one phase of work to the next phase of a project;
 - .2 Coordinate all services with the Departmental Representative;
 - .3 Deliver each project utilizing best practices in support of User Department needs, respecting the approved financial budget, schedule, scope, quality energy budget;
 - .4 Establish a cohesive functional partnership and open communication between all members of the project delivery team throughout all phases of the project life;
 - .5 Ensure that the Consultant team has an in-depth understanding and collective 'buy-in' of the project requirements, scope, budget and scheduling objectives, working constructively to build a collaborative and cooperative team approach with knowledgeable and timely input and contribution by all project team members, including representatives from PWGSC and the User Department;
 - .6 Conduct rigorous quality assurance reviews during the design and construction phases, including the application of value engineering principles during the design of all complex systems;
 - .7 Provide a written response to all PWGSC comments included in Quality Assurance reviews conducted throughout the design of the project;
 - .8 If any alterations are required during the development of the design, analyse the impact on all project components and resubmit for approval before proceeding further;
 - .9 Establish and maintain a change control procedure for scope changes;



- .10 Ensure that an experienced Project Architect or Project Engineer is assigned to each project, who shall be responsible for the production, coordination and delivery of all design and construction documents for all project disciplines;
- .11 Prepare a continuous risk identification and management program employing effective methodologies to ensure construction safety as well as claims avoidance;
- .12 Provide continuous and comprehensive documentation of the project at all stages of the project implementation;
- .13 Ensure continuity of key personnel and maintain a dedicated working team for the life of the project;

I.2.2 SERVICE DELIVERY FOR ALL PROJECTS

- .1 For all projects, the Consultant shall:
 - .1 Deliver the project to be within;
 - .1 The established construction budget,
 - .2 The key milestones, according to the established project schedule.
 - .2 Ensure that each Consultant team member:
 - .1 Understands the project requirements, for seamless delivery of the required services;
 - .2 Functions as a cohesive partnership with open communication between all members of the project delivery team throughout all phases of the project life;
 - .3 Function as an integrated and focused team with an in-depth understanding and collective 'buy-in' of the project requirements, scope, budget and scheduling objectives.
 - .3 Provide;
 - .1 Full co-ordination of services with other consultants engaged by PWGSC,
 - .2 A continuous risk management program to address the risks associated specifically with this project, including construction safety and claims avoidance issues.
 - .4 Deliver the work in a professional manner during all phases of the project, employing best practices for budget, schedule, quality, and scope management;
 - .5 Maintain continuity of key personnel and maintain a dedicated working team for the life of the project.

I.2.3 SERVICE DELIVERY (BUILDINGS)

- .1 For Building projects, where an Architectural firm is the Prime Consultants, the Consultant team shall, as a minimum, adhere to the standards of services outlined in the "Canadian Handbook of Practice for Architects - Volume 2 Management" (latest edition) distributed by the Royal Architectural Institute of Canada (RAIC).

I.2.4 SERVICE DELIVERY (ENGINEERING)

- .1 For Engineering projects, where an Engineering firm is the Prime Consultants, the Consultant team shall adhere to the standards of services established by the Professional Engineering Association in the Province or Territories where the project is located.

I.3 PROCUREMENT OF GOODS AND SERVICES

I.3.1 PUBLIC PROCUREMENT

- .1 Public procurement by Canada is legislated and guided by a number of international and national trade agreements, and acts, as well as policies, directives, and guidelines provided by the Treasury Board Secretariat (TBS) and PWGSC.



- .2 There is one over-arching principle for all PWGSC procurement activities: Integrity. Subordinate to this are guiding principles, which provide the framework for PWGSC procurement process.
- .3 For further information refer to the following web link;
 - .1 <http://www.tpsgc-pwgsc.gc.ca/app-acq/cndt-cndct/contexte-context-eng.html>

I.3.2 INTEGRITY AND GUIDING PRINCIPLES

- .1 PWGSC procurement processes will be open, fair and honest.
- .2 Client Service:
 - .1 PWGSC will make every reasonable effort to satisfy the operational requirements of its clients, while obtaining the best value in each procurement process.
- .3 National Objectives:
 - .1 PWGSC procurement activities will advance established government policies, within the limits imposed by international trade obligations.
- .4 Competition:
 - .1 PWGSC procurement will be competitive, with specific exceptions.
- .5 Equal Treatment:
 - .1 PWGSC must ensure that all potential bidders of a particular requirement are subject to the same conditions.
- .6 Accountability:
 - .1 PWGSC is accountable for the integrity of the contracting process.



2 REQUIRED SERVICES STANDARDS

2.1 GENERAL

- .1 Where Services are called for in the project specific TOR, the standards outlined in the following articles apply.

2.2 COST MANAGEMENT

2.2.1 GENERAL

- .1 The following provides a general indication of the information needed by the Consultant's cost estimator to prepare specific classifications of estimates.
- .2 These are the minimum requirements only and should be supplemented where additional information exists or is warranted.
- .3 Construction cost estimates are to be prepared and submitted to PWGSC at various stages during the design process.
- .4 In addition to the Consultants' estimate, PWGSC may have independent estimates performed to compare with the Consultant estimate.

2.2.2 TREASURY BOARD (TB) SUBMISSIONS

- .1 Projects that are subject to TB approval are normally submitted twice.
 - .1 The first submission is for Preliminary Project Approval (PPA) at Pre-Design or Schematic Design stage of a project and must include an Indicative Estimate for the cost of the work.
 - .2 The second submission is for Effective Project Approval (EPA) at the completion of Design Development or Pre-Tender stage of a project and must include a Substantive Estimate for the cost of the work.
- .2 The Treasury Board estimate definitions are:
 - .1 Indicative Estimate;
 - .1 A low quality, order of magnitude estimate that is not sufficiently accurate to warrant TB approval as a Cost Objective.
 - .2 Substantive Estimate;
 - .1 An estimate which is of sufficiently high quality and reliability as to warrant TB approval as a Cost Objective for the project phase under consideration.
 - .2 It is based on detailed systems and component design, taking into account all project objectives and deliverables.
- .3 TB Terminology:
 - .1 Constant dollar estimate;
 - .1 This is an estimate expressed in terms of the dollars of a particular base fiscal year.
 - .1 It includes no provision for inflation.
 - .2 Cash flows over a number of fiscal years may also be expressed in constant dollars of the base year including no allowance for inflation in the calculation of costs.
 - .2 Budget-year (BY) dollar estimate:
 - .1 Budget year dollars is also be referred to as Nominal dollars or Current dollars.
 - .1 This is an estimate based on costs arising in each FY of the project schedule.
 - .2 It is escalated to account for inflation and other economic factors affecting the period covered by the estimate.
 - .2 The costs and benefits across all periods should initially be tabulated in budget year dollars for the following reasons:



- .1 First; this is the form in which financial data are usually available,
- .2 Second; adjustments, such as tax adjustments, are accurately and easily made in budget year dollars,
- .3 Finally; working in budget-year dollar enables the analyst to construct a realistic picture over time, taking into account changes in relative prices.

2.2.3 CLASSES OF ESTIMATES

- .1 PWGSC applies a detailed, four level, classification using the terms Class A, B, C and D.
- .2 Apply these estimate classifications at the project stages as defined in the TOR.
- .3 For projects required to be submitted to TB for approval:
 - .1 An Indicative Estimate shall be at least a class 'D'; and
 - .2 A Substantive Estimate shall be at least a class 'B'.

2.2.4 CLASS 'D' (INDICATIVE) ESTIMATE

- .1 Based upon a comprehensive statement of requirements and an outline of potential solutions, this estimate is to provide an indication of the final project cost, and allow for ranking of all the options being considered.
- .2 Submit Class 'D' cost estimates in elemental analysis format, in accordance with the latest edition issued by the Canadian Institute of Quantity Surveyors, with cost per m² for current industry statistical data for the appropriate building type and location.
- .3 Include a summary in the cost estimate, plus full back up, showing items of work, quantities, unit prices, allowances and assumptions.
- .4 The level of accuracy of a class D cost estimate shall be such that no more than a 20% design contingency allowance is required.

2.2.5 CLASS 'C' ESTIMATE

- .1 Based on a comprehensive list of requirements and assumptions, including a full description of the preferred Schematic Design option, construction experience, design experience and market conditions, this estimate must be sufficient for making the correct investment decision.
- .2 Submit Class 'C' cost estimates in elemental analysis format, in accordance with the latest edition issued by the Canadian Institute of Quantity Surveyors, with cost per m² for current industry statistical data for the appropriate building type and location.
- .3 Include a summary in the cost estimate, plus full back up, showing items of work, quantities, unit prices, allowances and assumptions.
- .4 The level of accuracy of a class C cost estimate shall be such that no more than a 15% design contingency allowance is required.

2.2.6 CLASS 'B' (SUBSTANTIVE) ESTIMATE

- .1 Based on design development drawings and outline specifications, which include the preliminary design of all major systems and subsystems, as well as the results of all site/installation investigations, this estimate must provide for the establishment of realistic cost objectives and be sufficient to obtain effective project approval.
- .2 Submit Class 'B' cost estimates in both elemental analysis format and trade divisional format, in accordance with the latest edition issued by the Canadian Institute of Quantity Surveyors.
- .3 Include a summary in the cost estimate, plus full back up, showing items of work, quantities, unit prices, allowances and assumptions.
- .4 The level of accuracy of a class 'B' cost estimate shall be such that no more than a 10% design contingency allowance is required.

2.2.7 CLASS 'A' (PRE-TENDER) ESTIMATE



- .1 Based on completed construction drawings and specifications prepared prior to calling competitive tenders, this estimate must be sufficient to allow a detailed reconciliation and/or negotiation with any contractor's tender.
- .2 Submit Class 'A' cost estimates in both elemental analysis format and trade divisional format, in accordance with the latest edition issued by the Canadian Institute of Quantity Surveyors.
- .3 Include a summary in the cost estimate, plus full back up, showing items of work, quantities, unit prices, allowances and assumptions.
- .4 The level of accuracy of a class 'A' cost estimate shall be such that no more than a 5% design contingency allowance is required.

2.3 SCHEDULE MANAGEMENT

2.3.1 SCHEDULER

- .1 The Scheduler shall provide a Project Planning and Control Schedule for the project, for the purpose of Planning, Scheduling, Progress Monitoring (Time Management), during all the design phases up to the construction procurement phase.
- .2 A qualified Scheduler, with experience commensurate with the complexity of the project, is required to develop and monitor the project schedule during the design process.
- .3 The Scheduler shall adhere to good industry practices for schedule development and maintenance, as recognized by the Project Management Institute (PMI).
- .4 PWGSC presently utilizes the Primavera Suite software and Microsoft Project for its current Control Systems and any software used by the consultant should be fully integrated with either of these programs, using one of the many commercially available software packages.

2.3.2 PROJECT SCHEDULE

- .1 A Detailed Project Schedule is a schedule developed in reasonable detail to ensure adequate Time Management planning and control of the project.
- .2 Project Schedules are used as a guide for the planning, design and implementation phases 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).
- .3 When building a Project Schedule, the Consultant must consider:
 - .1 The level of detail required for control and reporting;
 - .2 The reporting cycle shall be monthly, unless otherwise identified in the Terms of Reference;
 - .3 What is required for reporting in the Project Teams Communications Plan; and
 - .4 The nomenclature and coding structure for naming of scheduled activities, which must be submitted to the Project Manager for acceptance.

2.3.3 MILESTONES

- .1 The Major Milestones are standard Deliverables and Control Points within NPMS and are required in all schedule development.
- .2 These Milestones will be used in Time Management Reporting within PWGSC as well as used for monitoring project progress using Variance Analysis.
- .3 Milestones may also be external constraints such as the completion of an activity, exterior to the project, affecting the project.

2.3.4 ACTIVITIES

- .1 All activities will need to be developed based on:
 - .1 Project Objectives;
 - .2 Project Scope;



- .3 Milestones;
- .4 Meetings with the project team; and
- .5 The scheduler's full understanding of the project and its processes.
- .2 Subdivide the elements down into smaller more manageable pieces that organize and define the total scope of work in levels that can be scheduled, monitored and controlled.
 - .1 This process will develop the Activity List for the project.
- .3 Each activity will describe the work to be performed using a verb and noun combination (i.e. Review Design Development Report).
- .4 These elements will become activities, interdependently linked in the Project Schedule.

2.3.5 SCHEDULE REVIEW AND APPROVAL

- .1 Once the scheduler has identified and properly coded all the activities to the acceptance of the Project Manager, the activities are then sorted into a logical order and appropriate duration are applied to complete the schedule.
- .2 The scheduler, together with the Project Team, can then analyze the schedule to see if the milestone dates meet the project timelines and then adjust the schedule accordingly by modifying durations or changing logic.
- .3 When the schedule has been satisfactorily prepared, the scheduler can present the detailed schedule back to the Project Team for acceptance and application as the project baseline.
- .4 There may be several iterations before the schedule meets with the Project Teams agreement and the critical project timelines.
- .5 The final agreed version must be copied and saved as the baseline to monitor variances during the design process.

2.3.6 SCHEDULE MONITORING AND CONTROL

- .1 Once Baseline, the schedule can be better monitored, controlled and reports can be produced.
- .2 Monitoring is performed by, comparing the baseline activities completed 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.
- .3 There will be several schedules generated from the analysis of the baseline schedule as outlined in the Required Services Sections of the TOR.
- .4 Each updated schedule reflects the progress of each activity to date, any logic changes, both historic and planned, projections of progress and completion indicating the actual start and finish dates of all activities being monitored.
- .5 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 in accordance with the TOR.
- .6 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.
 - .1 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.



- .7 At each submission or deliverable stage, provide an updated schedule and exception report.

2.4 RISK MANAGEMENT

2.4.1 CONTEXT

- .1 The Departmental Representative prepares the Risk Management Plan.
- .2 The Departmental Representative may ask for assistance from the Consultant Team for identification of risk items and factors arising from the technical requirements of the project.

2.5 WASTE MANAGEMENT

2.5.1 PROTOCOL

- .1 The Construction, Renovation, and Demolition (CRD) Non-hazardous Solid Waste Management Protocol to which PWGSC is bound, provides direction on the undertaking of non-hazardous solid waste management actions on projects.
 - .1 The protocol is designed to meet the federal requirements, provincial/territorial policies and the objectives of the PWGSC Sustainable Development Strategy (SDS).
- .2 The contractor must implement a solid waste management program.
- .3 Contractors must be instructed to plan for extra project time when implementing CRD waste diversion initiatives.
 - .1 Added labour costs can be recuperated and waste management costs savings can be achieved through reduced tipping fees, avoided haulage costs, and the sale of reusable and recyclable materials.

2.5.2 CONSULTANT RESPONSIBILITIES

- .1 Research and investigate hazardous waste disposal strategies in context of the project and make recommendations.
- .2 Include in the contract documents, a requirement for the contractor to develop a waste reduction and management plan during the construction of this project.
- .3 Identify, on the site plan where large (garbage) bins shall be stored, as well as easy disposal truck access/exit to/from same, to assist the Contractor in reducing waste or re-cycling of materials on and off site.

2.6 TECHNICAL REPORTS

2.6.1 PURPOSE

- .1 This section provides direction and standards for the preparation of reports delivered to PWGSC during all the various stages of project delivery and for specific services such as investigations, studies, analysis, strategies, audits, surveys, programs, plans, etc.
- .2 Technical Reports are official government documents, which are typically used to support an application for approval or to obtain authorization or acceptance and as such they must:
 - .1 Be complete, clear and professional in appearance and organization, with proper reference to related parts and contents in the report;
 - .2 Clearly outline the intent, objectives, process, results and recommendations;
 - .3 Present the flow of information and conclusions in a logical, easy to follow sequence;
 - .4 Be in written narrative, graphic, model (traditional and / or computer generated), and photographic format, which can be web enabled;
 - .5 Ensure that all pages are numbered in sequence; and
 - .6 Be printed double-sided, if hard copies are produced.

2.6.2 STANDARDS FOR PWGSC TECHNICAL REPORTS

- .1 Standard practice for the organization of technical reports requires:



- .1 A cover page, clearly indicating the nature of the report, the date, the PWGSC reference number and who prepared the report;
 - .2 A Table of Contents;
 - .3 An Executive Summary;
 - .4 The body of the report is to be structured such that the reader can easily review the document and locate, respond to and /or reference related information contained elsewhere in the report;
 - .5 Appendices used for lengthy segments of the report, supplementary and supporting information and / or for separate related documents.
- .2 The report content must:
- .1 Ensure that the executive summary is a true condensed version of the report following the identical structure, including only key points and results / recommendations requiring review and / or approval;
 - .2 Use a proper numbering system (preferably legal numbering), for ease of reference and cross-reference;
 - .1 The use of 'bullets' is to be avoided.
 - .3 Use proper grammar, including using complete sentences, in order to ensure clarity, avoid ambiguity and facilitate easy translation into French, if required;
 - .1 The use of undefined technical terms, industry jargon and cryptic phrases are to be avoided.
 - .4 Be written as efficiently as possible, with only essential information included in the body of the report and supporting information in an appendix if needed.

2.6.3 PRE-DESIGN REPORT CONTENT

- .1 Administrative aspects to be included (but not limited to) are:
 - .1 Quality management process for the consultant team;
 - .2 Confirmation that all necessary pre-design documentation required for this project is available and confirmation that the information is still current and up-to-date.
- .2 Regulatory Analysis aspects to be included (but not limited to) are:
 - .1 Preliminary summary of regulatory and statutory requirements, authorities having jurisdiction, and codes, regulations, and standards.
- .3 Program Analysis aspects to be included (but not limited to) are a review and analysis of:
 - .1 Functional program, User Department reports and studies, Space data sheets, Work stations, offices, common areas and commercial space requirements, Laboratories, Data Room requirements, etc.
- .4 Site Analysis aspects to be included (but not limited to) are a review and analysis of:
 - .1 Site features and restrictions (i.e. landscape features, topographical feature, climatic influences, setback requirements, easements, existing buildings, and / or structures.);
 - .2 Subsurface, geotechnical analysis of soils;
 - .3 Municipal infrastructure, subsurface and above grade services, including capacities and limitations (i.e. storm water drainage, fire protection, domestic water, power, telecommunications,);
 - .4 Historical/archaeological features, previous uses;
 - .5 Environmental features including sustainable design opportunities.
- .5 Building Analysis aspects to be included (but not limited to) are a review and analysis of:
 - .1 Substructure, including foundations and basement(s), parking;
 - .2 Shell, including superstructure, interior structural systems, exterior enclosure, roofing;
 - .3 Interiors, including interior construction, stairs, interior finishes;



- .4 Services, including conveying (elevators, escalators), plumbing, HVAC, fire protection, electrical, telecommunications, building automation;
- .5 Equipment and furnishings;
- .6 Special construction and demolition, materials abatement.
- .6 Budget, Schedule, and Risk Analysis aspects to be included (but not limited to) are:
 - .1 Updated Class 'D' estimate and revised schedule;
 - .2 Analysis of risk implications and preliminary mitigation strategies.
- .7 Sustainable Development Strategies
 - .1 Proposed policy for the project to minimize environmental impacts consistent with the project objectives and economic constraints, including:
 - .1 Recommendations on Sustainable Development Design standards to be applied to the project;
 - .2 Achievable levels for LEED® or Green Globes certification;
 - .3 Preliminary sustainability targets for water and energy use, waste reduction etc.
 - .2 Environmental impacts and application of the Canadian Environmental Assessment (CEA) Act.

2.6.4 SCHEMATIC DESIGN REPORT CONTENT

- .1 Standard practice for the organization of technical reports requires:
 - .1 Executive Summary;
 - .2 Regulatory Analysis;
 - .1 Preliminary building code analysis,
 - .2 Preliminary zoning analysis,
 - .3 Fire and life safety strategy, and
 - .4 Preliminary standards analysis.
 - .3 Program Analysis;
 - .1 Updated Functional Program requirements,
 - .2 Preliminary horizontal and vertical zoning diagrams,
 - .3 Spatial relationship diagrams,
 - .4 Facilities services strategy,
 - .5 Basic area calculations and analyses.
 - .4 Site Analysis;
 - .1 Drawings, renderings and supporting 3D visualization illustrating the building and site,
 - .2 Site features and restrictions (i.e. landscape features, topographical features, climatic influences, setback requirements, easements, existing buildings and/or structures etc.),
 - .3 Subsurface features,
 - .4 Municipal infrastructure, subsurface and above grade services, including capacities and limitations (i.e. storm water drainage, fire protection, domestic water, power, telecommunications etc.),
 - .5 Historical site features,
 - .6 Archaeological features,
 - .7 Environmental features including sustainable design strategies (i.e. storm water management, landscaping etc.).
- .2 Building Analysis and Design Options;
 - .1 Architectural,



- .1 Prepare a site plan indicating relationships, landscape concept, building outlines, main accesses, roadways, vehicular and pedestrian traffic patterns,
 - .2 Provide building plans, showing relative disposition of main accommodation areas, circulation patterns, floors, horizontal and vertical space relationships, mechanical / electrical shafts,
 - .3 Include elevations, sections and typical wall details for the building envelope,
 - .4 Provide perspectives and / or 3D visualization diagrams, and
 - .5 Calculate the gross building area and provide a net area summary of all accommodation areas required.
- .2 Civil,
- .1 Describe the overall impact on the site systems infrastructure,
 - .2 Verify of all site services information,
 - .3 Provide a site plan showing the existing building, proposed site services, building service connections, site drainage, roads, parking and sidewalks, and
 - .4 Include a preliminary analysis of the impact on existing systems, where contributing to existing sewer lines.
- .3 Structural / Seismic,
- .1 Describe the potential impact on the existing building structure and include any required structural modifications and /or upgrades,
 - .2 Provide a general description of structures, including systems considered and benefits/disadvantages,
 - .3 Include design loads for all load cases, and
 - .4 Prepare concept drawings of structural systems proposed, including typical floor plans, foundations, lateral systems and explanatory sketches.
- .4 Mechanical Engineering,
- .1 Provide narratives describing the following,
 - .1 Overview,
 - .2 Code & Standards Considerations & Concerns,
 - .3 Potential Energy Conservation Measures,
 - .4 Description of three distinct mechanical options including,
 - .1 Narratives of each option,
 - .2 Discussion of advantages and disadvantages of each,
 - .3 System schematics sufficient to describe each option,
 - .4 Preliminary energy analysis for each,
 - .5 Discussion of recommendations.
- .5 Electrical Engineering,
- .1 Provide an electrical design synopsis, describing the electrical work in sufficient detail for assessment and acceptance by the Departmental Representative,
 - .1 Include feasibility and economic studies of proposed systems complete with cost figures and loads, and in accordance with Sustainable Development requirements.
 - .2 Prepare a site plan showing the location of electrical and telecommunication service entrances.
 - .3 Prepare floor plans indicating locations and size of,
 - .1 Major electrical equipment and distribution centres,
 - .2 Telecommunications rooms, closets and major conduits,



- .4 Provide Normal and Emergency power distribution details, including a diagram showing the distribution up to distribution centres on each floor,
 - .5 Indicate typical lighting concepts for the interior and exterior environments,
 - .6 Indicate typical ceiling (or floor) distribution systems for lighting, power and telecommunications, and
 - .7 Provide concept descriptions of Fire alarm and Security systems.
- .3 Commissioning;
 - .1 Provide preliminary commissioning plan.
 - .4 Cost Management;
 - .5 Schedule Management;
 - .6 Furniture / Equipment;
 - .1 Prepare a Furniture Recommendation Report based on the Functional Program and on parameters developed in conjunction with the Departmental Representative and the Client / User. Report to include an examination of the following;
 - .1 Procurement process and requirements,
 - .2 Furniture type and layout,
 - .3 Panel screen height,
 - .4 Power requirements,
 - .5 Finishes.
 - .2 Recommendations are to take into consideration current inventory of furniture and reflect the client's vision, functional requirements, proposed planning alternatives, space allocation and project budget.
 - .3 Prepare a Class 'C' cost estimate for refurbishment of existing furniture and / or the purchase of new furniture and equipment.
 - .4 Document scheduling requirements for refurbishment of existing furniture and / or the procurement of new furniture and equipment.
 - .7 Budget;
 - .1 Class 'C' Estimates for each option.
 - .8 Schedule;
 - .1 Milestone project schedule including allowances for reviews and approvals for each stage of the project life cycle.
 - .9 Risk Analysis;
 - .1 Report on any deviations that may affect cost or schedule and recommend corrective measures.
 - .10 Sustainable Development Strategies;
 - .1 Indicate how each option can meet the sustainability targets, and
 - .2 Provide energy simulations of the proposed design options, including estimated annual energy cost as predicted by using current energy cost for the appropriate area.
 - .11 Response to PWGSC Quality Assurance Report ; and
 - .12 Project Log tracking all approved major decisions including those affecting changes to project scope, budget and schedule.

2.6.5 DESIGN DEVELOPMENT REPORT CONTENT

- .1 Executive Summary
- .2 Regulatory Analysis
 - .1 Preliminary building code analysis;



- .2 Preliminary zoning analysis;
- .3 Fire and life safety strategy;
- .4 Preliminary standards analysis
- .3 Program Analysis
 - .1 Updated Functional Program requirements
 - .2 Preliminary horizontal and vertical zoning diagrams;
 - .3 Facilities services strategy;
 - .4 Basic area calculations and analyses;
- .4 Site Analysis
 - .1 Drawings, renderings and supporting 3D visualization illustrating the building and site,
 - .2 Site features and restrictions (i.e. landscape features, topographical features, climatic influences, setback requirements, easements, existing buildings and/or structures etc.);
 - .3 Subsurface features;
 - .4 Municipal infrastructure, subsurface and above grade services, including capacities and limitations (i.e. storm water drainage, fire protection, domestic water, power, telecommunications etc.);
 - .5 Historical site features;
 - .6 Archaeological features;
 - .7 Environmental features including sustainable design strategies (i.e. storm water management, landscaping etc.);
- .5 Building Analysis and Design Options
 - .1 Architectural
 - .1 Prepare a site plan showing the building and Infrastructure items including the following:
 - .1 Pedestrian, vehicular, security, delivery service access,
 - .2 Provide floor plans of each level (including the roof) 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.
 - .3 Provide reflected ceiling plans of ceilings with special features.
 - .4 Show elevations of all exterior building facades indicating all doors and windows, accurately sized and projected from the floor plans and sections.
 - .1 Clearly indicate levels for grade, all floors, ceilings, roof and penthouse levels.
 - .5 Develop cross-sections through the building to show floor levels, room heights, inner corridor elevations, etc.
 - .6 Identify primary architectural materials proposed for the exterior and interior of the building, including choice of finishes.
 - .7 Provide plans and preliminary details for millwork, built-in furniture and lab casework.
 - .8 Provide detail sections of walls with special design features requiring illustration and explanation at this stage, such as firewalls, acoustical barriers, security partitions, isolation or separation of laboratory spaces, etc.
 - .9 Special construction and demolition, including heritage conservation and rehabilitation requirements, hazardous materials abatement,
 - .10 Provide sections and details for any spaces requiring acoustic security.
 - .1 Include STC ratings for doors, transfer ducts and other assemblies
 - .2 Civil



- .1 Further refine site plans showing site services and building service connections referenced to proposed building outlines, site access roads and sidewalks, including existing and proposed grades and drainage improvements.
- .2 Indicate locations of manholes (complete with invert elevations), valves, and fire hydrant locations.
- .3 Identify proposed pipe sizes and slopes, where applicable, and include pipe invert elevations at building foundation.
- .4 Identify, by means of Design Summary Sheets, pipe capacity and estimated flows for storm and sanitary sewers. Where contributing to an existing sewer, include analysis of impact on existing systems.
- .5 Provide Hydraulic Analysis of any relevant alterations to existing water distribution system in the vicinity of the proposed building to confirm anticipated maximum available fire flow. Calculate and compare site flows to building site fire flow.
- .6 Provide typical trench and related details, including profiles of below grade services.
- .3 Structural
 - .1 Provide drawings indicating modifications to existing structure and new structural systems, structural materials, cladding details, fireproofing methods and other significant or unusual details.
 - .2 Indicate all design loads, e.g. dead and live loads on all plans with atypical loads marked. Live loads to include localized seismic, wind and snow.
 - .3 Provide brief design calculations including outputs from computerized analysis.
- .4 Mechanical
 - .1 Provide narratives describing the following
 - .1 Overview
 - .2 Code & Standards Analysis
 - .3 Site Services & Utilities
 - .4 Fire Protection Systems
 - .5 Plumbing Systems
 - .6 Heating Systems
 - .7 Cooling Systems
 - .8 Ventilation Systems
 - .9 Exhaust Systems
 - .10 Insulation
 - .11 Humidification Systems
 - .12 Acoustic and sound control measures
 - .13 Controls
 - .14 Energy Conservation Measures & Energy Analysis & Report
 - .2 Provide system schematics for heating water, chilled water, ventilation and plumbing systems.
 - .3 Provide catalogue cut sheets of representative equipment for each type of component to be used on the project.
 - .4 Provide preliminary layout drawings showing locations of all major components.
 - .5 Provide brief design calculations including outputs from computerized analysis.
- .5 Electrical
 - .1 Update the electrical design synopsis for the selected option. Provide data on the total connected load, the maximum demand and diversity factors, and the sizing of the emergency load.



- .2 Elaborate on proposed emergency power scheme and provide preliminary installation details for any emergency generator installation.
 - .3 Indicate metering locations on distribution diagram.
 - .4 Provide typical lighting, power and telecommunication system details for all workspaces.
 - .5 Include lighting design and control schemes for typical lighting arrangements.
 - .6 Elaborate on exterior lighting scheme. Provide typical fixture concepts.
 - .7 Provide a fire alarm riser diagram.
 - .8 Indicate security system major conduit requirements on floor plans.
 - .9 Provide typical security system details (conduit and boxes) that will be included on construction drawings.
 - .10 Provide brief design calculations including outputs from computerized analysis.
- .6 Sustainable Development Strategies:
 - .1 Indicate how each option can meet the sustainability targets
 - .2 Provide energy simulations of the proposed design options, including estimated annual energy cost as predicted by using current energy cost for the appropriate area,
 - .7 Response to PWGSC Quality Assurance Report

2.7 CODES, ACTS, STANDARDS, REGULATIONS

2.7.1 GENERAL

- .1 The Codes, Acts, Standards and Guidelines listed in the following articles, may apply to this project. The Consultant must identify and analyse the applicable documents in the Code Analysis.
- .2 In all cases the most stringent Code, standard and guideline shall apply.

2.7.2 PWGSC DOCUMENTS AVAILABLE FROM PWGSC PROJECT MANAGER:

- .1 PWGSC Fit-Up Standards: Technical Reference Manual;
- .2 Public Works and Government Services MD Standards – Departmental Representative to provide on request;
 - .1 MD 15000; Environmental Standards for Office Accommodation,
 - .2 MD 15116-2006; Computer Room Air conditioning Systems,
 - .3 MD-15126; Laboratory HVAC (currently in draft form),
 - .4 MD 15128; Laboratory Fume Hoods: Guidelines for owners, design professionals and maintenance personnel – 2008,
 - .5 MD 15129; Guidelines for Perchloric Acid fumehoods and their exhaust systems – 2006,
 - .6 MD 15161; Control of Legionella in Mechanical Systems - 2006,
 - .7 MD 250005; Energy Monitoring and Control Systems Design Guidelines - 2009,
- .3 PWGSC Best Practice; Prescribing indoor humidity levels for Federal Buildings - 2006,
- .4 Public Works and Government Services Commissioning Standards and Guidelines,
- .5 PWGSC Commissioning Manual CP-I version 2006.

2.7.3 CODES AND REGULATIONS:

- .1 The NRC National Building Code of Canada 2010;
- .2 The NRC National Fire Code of Canada, 2010;
- .3 The NRC National Plumbing Code of Canada 2010;
- .4 The NRC Model National Energy Code for Buildings 2011;
- .5 CSA C22.1-09, Canadian Electrical Code Part I Safety Standard for Electrical Installations and CE Code Handbook. Amendments for Provinces;



- .6 Canadian Code for Preferred Packaging;
- .7 National Electrical Manufacturers Association (NEMA);
- .8 Electrical and Electronic Manufacturers' Association of Canada (EEMAC);
- .9 American National Standards Institute/Institute of Electrical and Electronics Engineers (ANSI/IEEE) - ANSI/IEEE C62.41-1991, Surge Voltages in Low-Voltage AC Power Circuits;
- .10 American Society for Testing and Materials (ASTM);
- .11 ASTM F 1137-00(2006), Specification for Phosphate/Oil and Phosphate/Organic Corrosion Protective Coatings for Fasteners;
- .12 The Canada Labour Code;
- .13 <http://laws.justice.gc.ca/en/L-2/>
- .14 The Canada Occupational Health and Safety Regulations;
- .15 <http://laws.justice.gc.ca/eng/SOR-86-304/index.html>
- .16 All other Territorial and Municipal Acts, Codes, By-laws and regulations appropriate to the area of concern.

2.7.4 STANDARDS AND GUIDELINES PRODUCED BY THE GOVERNMENT OF CANADA:

- .1 Standards and Directives of the Treasury Board (TB):
 - .1 <http://www.tbs-sct.gc.ca/pol/index-eng.aspx?tree=standard>
 - .2 <http://www.tbs-sct.gc.ca/pol/index-eng.aspx?tree=directive>
 - .3 And including:
 - .1 Accessibility Standard for Real Property,
 - .1 <http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=12044>
 - .2 Fire Protection Standard.
 - .1 <http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=17316>
- .2 Labour Canada's, Fire Commissioner of Canada Standards;
 - .1 http://www.hrsdc.gc.ca/eng/labour/fire_protection/policies_standards/commissioner/index.shtml.
 - .2 And including,
 - .1 FC-301 Standard for Construction Operations, June 1982,
 - .2 FC-302 Standard for Welding and Cutting, June 1982,
 - .3 FC-311 Standard for Record Storage, May 1979.
 - .4 FC-403 Fire Protection Standard for sprinkler Systems, November 1994
- .3 The Standards and Guidelines for the Conservation of Historic Places in Canada
 - .1 www.historicplaces.ca;
- .4 Labour Canada's, Technical Documents;
 - .1 http://www.hrsdc.gc.ca/eng/labour/fire_protection/policies_standards/guidelines/index.shtml
 - .2 And Including,
 - .1 Fire Protection for Information Technology Facilities and Equipment.
- .5 Canadian Food Inspection Agency's Containment Standard for Facilities Handling Plant Pests.
- .6 Public Health Agency of Canada's Laboratory Biosafety Guidelines, 3rd Edition,
- .7 Canadian Council of Animal Care's Guidelines on: Laboratory Animal Facilities – Characteristics, Design and Development.

2.7.5 HEALTH CANADA STANDARDS AND GUIDELINES:

- .1 Guidelines for Canadian Drinking Water Quality – Sixth Edition – 1996;
- .2 Guidelines for Canadian Drinking Water Quality – Summary Table – Dec 2010;



- .3 Guidance for Providing Safe Drinking Water in Areas Of Federal Jurisdiction – Version I – 2005;
- .4 The Canadian Council of Ministers of the Environment (CCME) ;
- .5 Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products (CCME, 2003);
- .6 Canada – Wide Strategy for the Management of municipal Waste Water Effluent;
- .7 The Canadian Environmental Protection Act (CEPA, 1999);
- .8 The Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations, published in Canada Gazette Part II on June 12, 2008 (Registration SOR/2008-197).

2.7.6 STANDARDS AND GUIDELINES:

- .1 Air Conditioning and Refrigeration Institute (ARI);
- .2 American Conference of Governmental Industrial Hygienists (ACGIH, Industrial Ventilation Handbook);
- .3 Air Diffusion Council (ADC);
- .4 Air Movement and Control Association (AMCA);
- .5 American Association of State Highway and Transportation Officials (AASHTO) Standards
- .6 American National Standards Institute (ANSI);
- .7 ANSI/AIHA Z9.5, Laboratory Ventilation;
- .8 .1 ANSI/NEMA C82.1-04, Electric Lamp Ballasts-Line Frequency Fluorescent Lamp Ballast;
- .9 .2 ANSI/NEMA C82.4-02, Ballasts for High-Intensity-Discharge and Low-Pressure Sodium Lamps;
- .10 ANSI/TIA/EIA-606- Administration Standard for the Telecommunications Infrastructure of Commercial Buildings;
- .11 ANSI Z358.1, Emergency Eyewash and Shower Equipment;
- .12 American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE), including but not limited to;
 - .1 ASHRAE Laboratory Design Guide,
 - .2 ASHRAE Standards and Guidelines,
 - .3 ASHRAE Applications Handbook – 2007,
 - .4 ASHRAE HVAC Systems and Equipment Handbook – 2008,
 - .5 ASHRAE Fundamentals Handbook – 2009,
 - .6 ASHRAE Refrigeration Handbook – 2010,
 - .7 ASHRAE 52.2 Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size – 2007,
 - .8 ANSI/ASHRAE 55, Thermal Environmental Conditions for Human Occupancy – 2004,
 - .9 ANSI/ASHRAE 62.1, Ventilation for Acceptable Indoor Air Quality – 2010,
 - .10 ASHRAE 90.1, Energy Efficient Design of New Buildings – 2010,
 - .11 ASHRAE 105: Standard Method of Measuring and Expressing Building Energy Performance,
 - .12 ASHRAE 110, Method of Testing Performance of Laboratory Fume Hoods,
 - .13 ASHRAE 111; Practices for Measurement, Testing, Adjusting and Balancing of Building HVAC&R Systems,
 - .14 ASHRAE 114; Energy Management Control Systems Instrumentation, and
 - .15 ASHRAE 135; BACnet: A Data Communication Protocol for Building Automation and Control Networks.
- .13 Asphalt Institute Standards for Hot Mix;



- .14 American Society of Mechanical Engineers (ASME);
- .15 American Society for Testing and Materials (ASTM);
- .16 American Water Works Association (AWWA) Standards;
- .17 American Welding Society (AWS);
- .18 Associated Air Balance Council (AABC);
- .19 Canadian Standards Association;
- .20 CSA A23.3-04 (2010) Design of Concrete Structures;
- .21 CSA B51-09 Boiler, pressure vessel and pressure piping Code;
- .22 CSA B52-05 Mechanical Refrigeration Code;
- .23 CSA B64-01 Backflow Preventers and Vacuum Breakers;
- .24 CSA B139-09 Installation Code for Oil Burning Equipment;
- .25 CSA B149.1-10 Natural Gas and Propane Installation Code;
- .26 CSA B651-04 Accessible Design for the Built Environment;
- .27 CSA C22.2 No. 41-07 Grounding and Bonding Equipment;
- .28 CSA S16-09 Design of Steel Structures;
- .29 CSA Z204-1994 Guideline for Managing Indoor Air Quality in Office Buildings;
- .30 CSA Z320-11 Building Commissioning Standard & Check Sheets;
- .31 CSA Z316.5-94, Fume Hoods and Associated Exhaust Systems;
- .32 CAN/CSA-23.1-04 and CAN/CSA-A23.2-04 Concrete materials and methods of concrete construction; and Methods of test and standard practice for concrete CAN/CSA-C22.2 No. 214-94 "Communications Cables";
- .33 CAN/CSA-C22.3 No.3-[98(R2007)], Electrical Co-ordination;
- .34 CAN/CSA-B651-04(R2010), Accessible Design for the Built Environment;
- .35 CAN3 C235-[83(R2010)], Preferred Voltage Levels for AC Systems, 0 to 50,000 V;
- .36 CAN/CSA-T528-93, "Design Guidelines for Administration of Telecommunications Infrastructure in Commercial Buildings", Canadian Standards Association;
- .37 CAN/ULC – S524-06 Standard for the Installation of Fire Alarm Systems;
- .38 CAN/ULC – S537-04 Fire Alarm System Verification Report;
- .39 CAN/ULC – S102-07 Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies;
- .40 CAN/ULC – S102.2-07 Method of Test for Surface Burning Characteristics of Flooring, Floor Coverings, and Miscellaneous Materials and Assemblies
CAN/ULC S112-M90 (R2001) Standard Methods of Fire Test of Fire-Damper Assemblies;
- .41 CAN/ULC S115-05 Standard Method of Fire Tests of Fire stop Systems;
- .42 International Mechanical Code – Latest Version;
- .43 Institute of Boiler and Radiation, Hydronic Institute (IBR);
- .44 Manufacturers Standardization Society of Valve and Fitting Industry (MSS);
- .45 National Fire Protection Association (NFPA), including;
 - .1 NFPA 10; Standard for Portable Fire Extinguishers – 2010,
 - .2 NFPA 13; Standard for Installation of Sprinkler Systems – 2010,
 - .3 NFPA 14; Standard for Installation of Standpipe and Hose Systems – 2010,
 - .4 NFPA 24: Standard for the Installation of Private Fire Service Mains and Their Appurtenances-2010,
 - .5 NFPA 30; Flammable and Combustible Liquids Code,
 - .6 NFPA 45; Standard on Fire Protection for Laboratories Using Chemicals,
 - .7 NFPA 1142: Standard on Water Supplies for Suburban and Rural Fire Fighting-2007.



- .46 SEFA I.2, Scientific Equipment & Furniture Association;
- .47 Sheet Metal and Air Conditioning Contractors National Association (SMACNA);
- .48 Transportation Association of Canada (TAC) Guide for Canadian Roads;
- .49 Manual of Uniform Traffic Control Devices (MUTCD);
- .50 Telecommunications Industry Association (TIA);
 - .1 Commercial Building Telecommunications Cabling Standard TIA/EIA-568,
 - .1 Part 1: General Requirements, TIA/EIA-568-B.1,
 - .2 Part 2: Balanced Twisted Pair Cabling Components, TIA/EIA-568-B.2,
 - .3 Addendum 1 - Transmission Performance Specification for 4-pair 100 Ohm Category 6 Cabling, TIA/EIA-568-B.2-1,
 - .4 Optical Fibre Cabling Components Standards, TIA/EIA-568-B.3.
 - .2 ANSI/TIA/EIA-569-A Commercial Building Standards for Telecommunications pathways and spaces,
 - .3 Pathways and Spaces, ANSI/TIA/EIA-569-B,
 - .4 Telecommunications Infrastructure Standard for Data centers TIA-942,
 - .5 J-STD-607-A Commercial Building Grounding and - Bonding Requirements for Telecommunications.
- .51 Underwriters' Laboratories of Canada (ULC);
- .52 ULC/CSA Approval is required for all electrical and mechanical equipment.

2.7.7 STANDARDS AND GUIDELINES FOR TRANSPORTATION

- .1 Canadian Highway Bridge Design Code
- .2 Transportation Association of Canada - Manuals, Guides and Handbooks.

2.8 COMMISSIONING PROCESS

2.8.1 GENERAL

- .1 This section summarizes the PWGSC commissioning process, the requirements and associated roles and responsibilities as they relate to the various phases in the delivery of a project.
- .2 It is to be used as a guide in further developing the commissioning plan, specification and related documents for a project.
- .3 Commissioning is not a replacement for good design and construction practices.
 - .1 It requires coordinated efforts on the part of all parties involved in the Project.
- .4 The Commissioning overlaps the design phase through construction and into the operation phase.
- .5 The PWGSC Commissioning Manual CP.1 4th edition, November 2006, is available for free download at the following site:
 - .1 <http://www.tpsgc-pwgsc.gc.ca/biens-property/sngp-npms/bi-rp/tech/miseenservice-commissioning/manuel-manual-eng.html>
- .6 The PWGSC Commission Manual CP.2 – Commissioning Glosary is available for free download at the following site:
 - .1 <http://www.tpsgc-pwgsc.gc.ca/biens-property/sngp-npms/bi-rp/tech/miseenservice-commissioning/manuel-manual-b-eng.html>
- .7 “Commissioning” is a quality assurance process, in which the functional requirements of the Owner/occupant and the operational requirements of facility management are proven to function as intended.



- .8 The “commissioning process” is a planned program of quality management and information transfer that extends through all phases of a project’s development and delivery, up to and including the warranty period.
- .9 The process consists of a series of checks and balances to ensure that the work is designed, installed and proven to operate as intended.
- .10 Commissioning has two main components, functional and operational.
 - .1 The functional component deals with:
 - .1 Security, Health (indoor air quality) and occupant safety;
 - .2 Comfort (temperature, relative humidity, ventilation, air flow patterns, air purity and well being);
 - .3 Cost-effectiveness of design; and
 - .4 Systems and equipment supporting Owner’s functional requirements.
 - .2 The operational component deals with:
 - .1 Operation and Maintenance (O&M) issues; e.g., design review with a particular concern for the operation and maintenance of the systems today and in the future, when repairs are required;
 - .2 Performance evaluation of systems and equipment;
 - .3 Accessibility to O&M Documentation; and
 - .4 Review of the training plan against the current needs now and in the future.

2.8.2 COMMISSIONING PLAN

- .1 The Commissioning Plan will typically be developed by the Contractor through his own Commissioning Agent.
- .2 The Commissioning Plan is the project-specific document and which describes the process for verifying that all built works meet the Investor’s requirements within the limits of the working documents.
- .3 It is essential that the Consultant provide specifications that detail requirements for all submittals and testing in each Specification Section in order for the Contractor to properly prepare a complete Commissioning Plan.
- .4 The Commissioning Plan will be reviewed and accepted by the Departmental Representative prior to commencement of construction.
- .5 The Commissioning Plan may require periodic update throughout design.

2.8.3 COMPONENT VERIFICATION

- .1 Component verification sheets (CV) sheets are developed by the Consultant and incorporated in the contract documents to ensure the facility is an operating entity and meets the requirements as described in the Agreement.
- .2 The CV sheets are intended to monitor and track the supply and shop drawing requirements associated with each component. The *Consultant* must verify that the components being installed in the built works are acceptable to their design and the approved shop drawings.
- .3 The commissioning process requires the documentation of all the components installed as part of a system that will have performance verification testing conducted.
- .4 Sample CV sheets for various types of components are to be provided by the Consultant in Div 01.

2.8.4 SYSTEM & INTEGRATED SYSTEM TESTING

- .1 The “performance verification tests” (PVTs) are developed by the Design-Builder to ensure the facility is an operating entity and meets the requirements as described in the Agreement.



- .2 The PVTs are intended to demonstrate the functional performance of the systems & integrated system during the various modes of operation, against the design intent. Each test must be uniquely identified and reflected in the contractor's commissioning schedule.
- .3 Once the contract has been awarded the Design-Builder must monitor the sub-contractor's process to help ensure the timely completion of these tests. The Design-Builder must witness each test. The Design-Builder must provide final certification of the test results. After an acceptable review of the test document, the PWGSC Commissioning Specialist will recommend to the Departmental Representative the acceptance or rejection of the test results.
- .4 Sample PVT sheets for various types of system are to be provided by the Consultant in Div 01.

2.8.5 TEST REQUIREMENTS

- .1 Each CV or PVT shall be uniquely named, numbered and categorized by discipline.
- .2 Tests shall define:
 - .1 Test Purpose;
 - .2 System design narrative;
 - .3 Test Prerequisites;
 - .4 Testing Procedures;
 - .5 Test Comments; and
 - .6 Test Sign-off Block.
- .3 System Performance Verifications Tests
 - .1 These tests have prerequisites that are to be completed and approved prior to conducting the tests, which, may include but are not limited to:
 - .1 CV and PVT sheets developed and accepted,
 - .2 Contractor proving start-up and tests,
 - .3 Manufacturers start-ups,
 - .4 Consultant has certified testing, adjusting & balancing (TAB) results, per TAB specification.
 - .1 TAB work must be completed and approved prior to the control system Pts.
 - .5 Associated control device calibrations and physical point verifications are completed and approved.
 - .1 Note, control system end to end checks to be completed and approved prior to the control system PVTs.
 - .6 Other specified deliverables, i.e. factory test reports, O&M submissions, etc.
 - .7 System performance tests associated with the integrated systems under test,
 - .8 Integrated System Performance Verifications,
 - .9 Fire alarm verifications.

2.8.6 COMMISSIONING (EVALUATION) REPORT

- .1 The Commissioning (Evaluation) Report must provide:
 - .1 An executive summary,
 - .2 Completed CV and PVT sheets,
 - .3 A complete assessment of the project,
 - .4 Lessons learned from this project and any necessary recommendations,
 - .5 Variances between the actual and planned levels of performance,
 - .6 An evaluation of the validation and acceptance process and of the commissioning phase.

2.8.7 OVERVIEW OF ROLES AND RESPONSIBILITIES



- .1 The following provides a general overview of the roles, responsibilities and implementation of the commissioning process. The commissioning process is a logical sequence of verifications from component verifications through to system & integrated system, performance verification testing.
- .2 At completion of the commissioning process all results are documented and audited for acceptance.

2.8.8 MAJOR TASKS AND RESPONSIBILITIES

- .1 Schematic Design and Design Development Phase:
 - .1 Consultant;
 - .1 Develop commissioning strategy,
 - .2 Develop preliminary commissioning plan.
 - .2 Construction Documentation Phase:
 - .1 Consultant;
 - .1 Complete the final commissioning plan,
 - .2 Specify the Commissioning requirements in Div 01 and provide sample Commissioning CV and PCT sheets in Div 01 for Bidders purposes,
 - .3 Develop project specific CV and PVT sheets.
 - .3 Construction Phase:
 - .1 Consultant;
 - .1 Monitor and report on contract commissioning activities,
 - .2 Finalize development of job specific CV and PVT sheets,
 - .3 Review and certify component verification sheets as they are completed by the Contractor, and
 - .4 Review commissioning schedule
 - .2 Contractor;
 - .1 Comply with the requirements in the Specifications,
 - .2 Complete the component verification,
 - .3 Conduct the equipment system start-up and proving, and
 - .4 Develop the commissioning schedule, reflecting the PVTs.
 - .4 Commissioning Phase
 - .1 Consultant
 - .1 Witness all system and integrated systems tests,
 - .2 Review and certify commissioning test results,
 - .3 Track and compile all commissioning documentation submitted by the contractor and confirm that all commissioning tasks are completed,
 - .4 Incorporate all commissioning documentation into a preliminary commissioning report and recommend interim acceptance.
 - .5 Identify “deferred” commissioning tests due to seasonal constraints, etc.
 - .2 Contractor
 - .1 Comply with the requirements in the specifications,
 - .2 Conduct the system testing, and
 - .3 Conduct the integrated system testing.
 - .5 Operating Phase
 - .1 Consultant
 - .1 Provide advice and recommendations for fine tuning, if required,
 - .2 Witness “deferred” commissioning tests,



- .3 Review and certify “deferred” systems test results,
- .4 Incorporate deferred system test results and all other commissioning documentation into a final commissioning report with an executive summary recommending final acceptance.
- .2 Contractor
 - .1 Address warranty issues,
- .6 Evaluation Phase
 - .1 Consultant
 - .1 Provide advice and recommendations during the final evaluation.

2.9 CONSTRUCTION DOCUMENTS

2.9.1 PURPOSE

- .1 This section provides direction in the preparation of construction contract documents (namely specifications, drawings and addenda) for PWGSC.
- .2 Drawings, specifications and addenda must be complete and clear, in order that a contractor can prepare a bid without guesswork. Standard practice for the preparation of construction contract documents requires that:
 - .1 Drawings are the graphic means of showing work to be done, as they depict shape, dimension, location, quantity of materials and relationship between building components.
 - .2 Specifications are written descriptions of materials and construction processes in relation to quality, colour, pattern, performance and characteristics of materials, installation and quality of work requirements.
 - .3 Addenda are changes to the construction contract documents or tendering procedures, issued during the tendering process.

2.9.2 PRINCIPLES FOR PWGSC CONTRACT DOCUMENTS

- .1 PWGSC’s contract documents are based on common public procurement principles.
- .2 PWGSC does not use Canadian Construction Document Committee (CCDC) documents.
- .3 The construction contract and the terms and conditions are prepared and issued by PWGSC, along with all other related bidding and contractual documents.
 - .1 For more detailed information, the clauses are available on the following web site:
 - .2 <http://ccua-sacc.tpsgc-pwgsc.gc.ca/pub/acho-eng.jsp>
 - .3 Any questions should be directed through the PWGSC Project Manager.

2.9.3 QUALITY ASSURANCE

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

2.9.4 ADDENDA

- .1 Format
 - .1 Prepare addenda using the format shown in Appendix ‘C’.
 - .2 No signature type information is to appear.
 - .3 Every page of the addendum (including attachments) must be numbered consecutively.
 - .4 All pages must have the PWGSC project number and the appropriate addendum number.
 - .5 Sketches shall appear in the PWGSC format, stamped and signed.
 - .6 No Consultant information (name, address, phone #, consultant project # etc.) may appear in the addendum or its attachments (except on sketches).
- .2 Content



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

2.9.5 SUBMISSIONS

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

2.9.6 PWGSC ROLE

- .1 PWGSC shall provide:
 - .1 General and Special Instructions to Bidders
 - .2 Bid and Acceptance Form
 - .3 Standard Construction Contract Documents

2.10 SPECIFICATIONS

2.10.1 GENERAL

- .1 In preparing project specifications, the Consultant must use the current edition of the National Master Specification (NMS) in accordance with the "NMS User's Guide".

2.10.2 NATIONAL MASTER SPECIFICATION (NMS)

- .1 In preparing project specifications, the Consultant must use the current edition of the National Master Specification (NMS) in accordance with the "NMS User's Guide".
- .2 The NMS is a master construction specification available in both official languages, which is divided into 48 Divisions (Masterformat 2004) and is used for a wide range of construction and/or renovation projects.
- .3 The Consultant retains overriding responsibility for content and shall edit, amend and supplement the NMS as deemed necessary to produce an appropriate project specification, free of conflict and ambiguity.

2.10.3 SPECIFICATION ORGANIZATION

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



- .3 For specifications not included in the NMS, but required for the project, follow the number and title recommendations of Masterformat 2004
- .4 Number each page and start each Section on a new page
- .5 Bind specifications
- .6 Include Division I, edited to PWGSC requirements.
- .7 Note: Consultant's name is not to be indicated in the specifications..

2.10.4 TERMINOLOGY

- .1 Use the term "Departmental Representative" instead of Engineer, PWGSC, Owner, Consultant or Architect.
- .2 "Departmental Representative" means the person designated in the Contract, or by written notice to the Contractor, to act as the Departmental Representative for the purposes of the Contract, and includes a person, designated and authorized in writing by the Departmental Representative to the Contractor.
- .3 Notations such as: "verify on site", "as instructed", "to match existing", "example", "equal to" or "equivalent to", "to be determined on site by "Departmental Representative", should not be indicated in the specifications as this promotes inaccurate and inflated bids.
- .4 Specifications must permit bidders to calculate all quantities and bid accurately.
 - .1 If quantities are impossible to identify (i.e. cracks to be repaired) give an estimated quantity for bid purposes (unit prices).
- .5 Ensure that the terminology used throughout the specifications is consistent and does not contradict the applicable standard construction contract documents.

2.10.5 DIMENSIONS

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

2.10.6 STANDARDS

- .1 As references in the NMS may not be up to date, it is the responsibility of the consultant to ensure that the project specification uses the latest applicable edition of all references quoted.
- .2 Canadian standards should be used wherever possible.

2.10.7 SPECIFYING MATERIALS

- .1 The practice of specifying actual brand names, model numbers, etc., is against departmental policy except for special circumstances.
- .2 The method of specifying materials shall be by using industry recognized standards.
- .3 If the above method cannot be used and where no standards exist, specify by a non-restrictive, non-trade name "prescription" or "performance" specifications.
- .4 In exceptional or justifiable circumstances, or if no standards exist and when a suitable non-restrictive, non-trade name "prescription" or "performance" specification cannot be developed; specify by trade name
- .5 Include all known materials acceptable for the purpose intended, and in the case of equipment, identify by type and model number.

2.10.8 ACCEPTABLE PRODUCTS AND MATERIALS

- .1 The term "Acceptable Manufacturers" must not be used, as this restricts competition and does not ensure the actual material or product will be acceptable.
 - .1 A list of words and phrases that should be avoided is included in the NMS User's Guide.
- .2 Listing of acceptable products or materials is to be an exception, due to a unique specification or for the purpose of assisting bidders in identifying lesser known potential products or materials.



- .3 For exceptions, provide justifiable reasons for listing products and materials and submit to the *Departmental Representative* for acceptance.
- .4 When authorized to list acceptable products or materials, list all, with a minimum of three (3), trade names of products and materials acceptable for the intended purpose.

2.10.9 ALTERNATE PRODUCTS AND MATERIALS

- .1 Alternates must be approved by addendum issued by the *Departmental Representative* in accordance with Instructions to bidders.
- .2 Review applications for approval of alternate products and materials and provide recommendations to the *Departmental Representative*.
- .3 Compare products/materials to specifications. Do not compare product-to-product or material-to-material.

2.10.10 SEPARATE AND ALTERNATE PRICES

- .1 Do not include Separate or Alternate Pricing .

2.10.11 SOLE SOURCING

- .1 Sole sourcing for materials and work may be used for proprietary systems (i.e. fire alarm systems, EMCS systems).
- .2 Substantiation and/or justification will be required.
- .3 Prior to including sole source materials and/or work, the Consultant must contact the *Departmental Representative* to obtain the approval for the sole sourcing.

2.10.12 UNIT PRICES

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

2.10.13 CASH ALLOWANCES

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

2.10.14 WARRANTIES

- .1 It is the practice of PWGSC to have a 12-month warranty and to avoid extending warranties for more than 24 months.
- .2 When it is deemed necessary to extend a warranty beyond the 12 month period provided for in the General Conditions of the contract, obtain approval from the Project Manager.
- .3 Delete all references to manufacturers' guarantees.

2.10.15 SCOPE OF WORK

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

2.10.16 SUMMARY AND SECTION INCLUDES

- .1 In Part -I All Sections; do not use (delete):
 - .1 "Summary" and
 - .2 "Section Includes."

2.10.17 RELATED SECTIONS

- .1 In Part I All Sections; do not use (delete)

2.10.18 INDEX



- .1 List all the plans and specification sections with correct number of pages, section names and correct drawing titles in the format shown in Appendix C.

2.10.19 HEALTH AND SAFETY

- .1 Confirm with the Project Manager to determine if there are any instructions to meet regional requirements.

2.10.20 EXPERIENCE AND QUALIFICATIONS

- .1 Remove experience and qualification requirements from specification sections.

2.10.21 PREQUALIFICATION

- .1 Do not include in the specification any mandatory contractor and/or subcontractor prequalification requirements that could become a contract award condition.
- .2 If a prequalification process is required, contact the Project Manager.
- .3 There should be no references to certificates, transcripts or license numbers of a trade or subcontractor being included with the bid.

2.10.22 CONTRACTING ISSUES

- .1 Specifications describe the workmanship and quality of the work.
 - .1 Contracting issues should not appear in the specifications.
- .2 Division 00 of the NMS is not used for PWGSC projects.
- .3 Remove all references within the specifications, to the following:
 - .1 General Instructions to Bidders
 - .2 General Conditions
 - .3 CCDC documents
 - .4 Health and Safety requirements
 - .5 Priority of documents
 - .6 Security clauses
 - .7 Terms of payment or holdback
 - .8 Tendering process
 - .9 Bonding requirements
 - .10 Insurance requirements
 - .11 Alternative and separate pricing
 - .12 Site visit (Mandatory or Optional)
 - .13 Release of Lien and deficiency holdbacks

2.11 DRAWINGS

2.11.1 GENERAL

- .1 Drawings shall be in accordance with PWGSC Western CADD Standards and CSA B78.3.
- .2 Refer to:
 - .1 <http://www.tpsgc-pwgsc.gc.ca/cdao-cadd/ouest-western/tm-toe-eng.html>
 - .2 The above link is subject to change
 - .3 The Consultant shall check with the Project Manager to ensure that the link is current.
- .3 Download and use the Toolkit which includes drawing border templates, layer utility and drawing standards checker.

2.11.2 TITLE BLOCKS

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

2.11.3 DIMENSIONS

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

2.11.4 TRADE NAMES



- .1 Trade names on drawings are not acceptable.
- .2 Refer to SECTON 2.3, SPECIFICATIONS; 2.3.6 Specifying Materials for specifying materials by trade name.

2.11.5 SPECIFICATION NOTES

- .1 No specification type notes are to appear on any drawing.

2.11.6 TERMINOLOGY

- .1 Use the term "Departmental Representative" instead of Engineer, PWGSC, Owner, Consultant or Architect.
- .2 "Departmental Representative" means the person designated in the Contract, or by written notice to the Contractor, to act as the Departmental Representative for the purposes of the Contract, and includes a person, designated and authorized in writing by the Departmental Representative to the Contractor.
- .3 Notations such as: "verify on site", "as instructed", "to match existing", "example", "equal to" or "equivalent to", "to be determined on site by "Departmental Representative", may not be indicated on the drawings or in the specifications as this promotes inaccurate and inflated bids.
- .4 Specifications & drawings must permit bidders to calculate all quantities and bid accurately.
- .5 If quantities are impossible to identify (i.e. cracks to be repaired) give an estimated quantity for bid purposes (unit prices).
- .6 Ensure that the terminology used throughout the drawings & specifications is consistent and does not contradict the applicable standard construction contract documents.

2.11.7 INFORMATION TO BE INCLUDED

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

2.11.8 DRAWING NUMBERS

- .1 Number drawings in sets according to the type of drawing and the discipline involved as follows:
 - .1 The requirements of SECTION 2 PWGSC NATIONAL CADD STANDARD will supersede these requirements, where warranted.
- .2 During the Design Phase of the project each submission and review must be noted on the Notes block of the drawing title, but at the time of construction document preparation, all revision notes should be removed.

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

2.11.9 PRINTS



- .1 Print with black lines on white paper.
- .2 Blue prints are acceptable for document submissions at stages outlined in the TOR.
- .3 Confirm with Departmental Representative the size of prints to be provided for review purposes.

2.11.10 BINDING

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

2.11.11 LEGENDS

- .1 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.

2.11.12 SCHEDULES

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

2.11.13 NORTH POINTS

- .1 On all plans include a north point.
- .2 Orient all plans in the same direction for easy cross-referencing.
- .3 Wherever possible, lay out plans so that the north point is at the top of the sheet.

2.11.14 DRAWING SYMBOLS

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



3 PROJECT ADMINISTRATION

3.1 GENERAL REQUIREMENTS FOR ALL PROJECTS

- .1 The administration requirements outlined in this section are applicable to all PWGSC projects in Western Region, unless otherwise indicated in the TOR.
- .2 “Project Team” refers to key representatives involved in this project.
- .3 All team members must maintain a professional, cordial and collaborative relationship.

3.2 LANGUAGE

- .1 Construction documents must be prepared in English.

3.3 MEDIA

- .1 The Consultant shall not respond to any media inquiry.
- .2 Direct all media requests to the Departmental Representative.

3.4 PROJECT MANAGEMENT

3.4.1 GENERAL

- .1 Public Works and Government Services Canada administers the project on behalf of Canada and exercises continuing control over the project during all phases of development.
- .2 This project is to be organized, managed and implemented in a collaborative manner.
- .3 The PWGSC project management team, the Consultant, the Contractor and the User Department teams are to work cooperatively at every stage of the design and construction process in order to assure the creation of a successful and meaningful work of architecture.
- .4 Under the leadership of the PWGSC Departmental Representative, all team members are responsible for establishing and maintaining a professional and cordial relationship.

3.4.2 NATIONAL PROJECT MANAGEMENT SYSTEM

- .1 PWGSC uses the National Project Management System (NPMS) for management of its building projects in order to align with the Federal Government approvals processes. Refer to the PWGSC NPMS web site for more details.
- .2 <http://www.tpsgc-pwgsc.gc.ca/biens-property/sngp-npms/index-eng.html>
- .3 This GP&S document speaks to services that are normally provided by the professional during the Project Delivery Phase of the NPMS.

3.4.3 DESIGN STAGE

- .1 Pre-design Process
 - .1 The purpose of this phase is to analyze all project requirements including codes, regulations, programming, sustainability, cost, time management and risk to demonstrate a full understanding of the project
 - .2 The approved deliverable will become the formal project work plan and will be utilized throughout the project to guide the delivery.
- .2 Schematic Design Process
 - .1 The purpose of this phase is to explore three distinctly different design options and to analyze them against the project requirements.
 - .2 The Schematic Design will be in sufficient detail to illustrate and communicate the project characteristics.
 - .1 Provide a detailed review and analysis of the project requirements including all updates and amendments to ensure all requirements are fully integrated into the Schematic Design.



- .2 Out of this process the Schematic Design will be accepted and authorization to proceed to Design Development will be based on the accepted Schematic Design.
- .3 The *Departmental Representative*, in concert with others shall choose one option to be further developed.
 - .1 Although the *Consultant* is required to identify a preferred option, the *Departmental Representative* may select another option.
 - .2 The approved deliverable will become the formal project work plan and will be utilized throughout the project to guide the delivery.

3.4.4 IMPLEMENTATION STAGE

- .1 Design Development Process
 - .1 The purpose of this phase is to further develop the design option selected for refinement at the Schematic Design stage.
 - .2 The Design Development documents consist of drawings and other documents to describe the scope, quality and cost of the project in sufficient detail to facilitate design approval, confirmation of code compliance, detailed planning of construction and project approval.
 - .3 This design will be used as the basis for preparation of construction documents.
 - .4 The approved deliverable will become the formal project work plan and will be utilized throughout the project to guide the delivery.
- .2 Commissioning Process
 - .1 “Commissioning” is a quality assurance process, in which the functional requirements of the Owner/occupant and the operational requirements of facility management are tested, verified and proven to function as intended.
 - .2 Commissioning deliverables occur at various phases throughout the project as detailed in section 2.8.
 - .3 Commissioning shall be in accordance with the PWGSC Commissioning Manual CP.I (2003).
- .3 Construction Document Process
 - .1 The purpose of this phase is to translate design development documents into construction drawings and specifications, for use by the contractor to determine a cost for the work and to construct the building.
- .4 Contract Procurement Process
 - .1 The purpose of this phase is to obtain and evaluate bids/proposals from qualified contractors to construct the project, as per the Construction Contract Documents and to award the construction contract according to government regulations.
- .5 Construction Contract Administration Process
 - .1 The purpose of this phase is to implement the project in compliance with the Construction Contract Documents and to direct and monitor all necessary or requested changes to the scope of work during construction, commissioning and closeout.

3.4.5 CLOSEOUT STAGE

- .1 Post Construction Process
 - .1 The purpose of this phase is to ensure the orderly completion and recording of all aspects of the work during the construction and liaise with the Public Works And Government Services Canada and other agencies as appropriate to close out the project.

3.4.6 ENGINEERING PROJECTS



- .1 Refer to the project specific TOR where the stages for an Engineering Project differs slightly.

3.5 LINES OF COMMUNICATION

- .1 In general, communications will be through the Departmental Representative, unless directed otherwise.
 - .1 This includes formal contact between the Consultant, the Contractor, the PWGSC Project Team and the User Department.
- .2 Direct communication between members of the PWGSC Project Team on routine matters may be required for resolution of technical issues.
 - .1 However, this shall not alter project scope, budget or schedules, unless confirmed in writing by the Departmental Representative.
- .3 During construction tender call, PWGSC will conduct all correspondence with bidders and award the contract.

3.6 MEETINGS

- .1 The Departmental Representative will arrange meetings throughout the project, with representatives from:
 - .1 The User Department;
 - .2 PWGSC
 - .3 The Consultant team; and
 - .4 The Contractor (during the construction phase)
- .2 Standing agenda items shall include:
 - .1 Project Schedule,
 - .2 Cost,
 - .3 Risk,
 - .4 Quality,
 - .5 Health and safety

3.7 CONSULTANT RESPONSIBILITIES

- .1 The “Consultant Team” includes the Consultant’s staff, sub-consultants and specialists.
 - .1 This team must maintain its expertise for the duration of the project.
 - .2 The team must include qualified registered architectural and engineering professionals, with extensive relevant experience, capable of providing all required services.
 - .3 Team members may be qualified to provide services in more than one discipline.
 - .4 The Consultant may expand the team to include additional disciplines.
- .2 The Consultant is responsible for:
 - .1 Obtaining Departmental Representative acceptance for each project phase before proceeding to the next phase.
 - .2 Accurately communicating design, budget, and scheduling issues to staff, sub-consultants and specialists.
 - .3 Co-ordinating input for the Departmental Representative’s Risk Management Plan
 - .4 Co-ordinating the quality assurance process and ensuring that submissions of sub-consultants are complete and signed-off by reviewers;
 - .5 During the design phases:
 - .1 Attend meetings,
 - .2 Record the issues and decisions,
 - .3 Prepare and distribute minutes within two working days of the meeting,



- .4 Ensure all meetings are green i.e. using electronic documents or double-sided hard copies and
- .5 Ensure sub-consultants attend required meetings.
- .6 During the construction phase:
 - .1 Attend meetings and provide site inspection services
 - .2 Ensure sub-consultants provide site inspection services and attend required meetings.
- .3 The Consultant is responsible for:
 - .1 Coordinating and directing the work of all team activities, sub-consultants and specialists
 - .2 Preparing a design that meets project requirements.
 - .3 Obtaining approvals on behalf of the Departmental Representative from the User and other levels of government such as provincial and municipal governments
 - .1 The Consultant shall adjust the documentation to meet the requirements of these authorities.

3.8 PWGSC RESPONSIBILITIES

- .1 Administration
 - .1 PWGSC administers the project and exercises continuing control over the project during all phases of development.
 - .2 The following administrative requirements apply during all phases of the project delivery.
- .2 Reviews
 - .1 PWGSC will review the work at various stages and reserves the right to reject unsatisfactory work at any stage.
 - .2 If later reviews show that earlier acceptances must be withdrawn, the Consultant shall re-design and re-submit at no extra cost.
- .3 Acceptance
 - .1 PWGSC acceptance of submissions from the Consultant simply indicates that, based on a general review, the material complies with governmental objectives and practices, and meets overall project objectives
 - .2 Acceptance does not relieve the Consultant of professional responsibility for the work and for compliance with the contract.
- .4 PWGSC Project Management
 - .1 The Project Manager assigned to the project is the Departmental Representative.
 - .2 The Departmental Representative is directly responsible for:
 - .1 The progress and administration of the project, on behalf of PWGSC
 - .2 Day-to-day project management and is the Consultant's single point of contact for project direction.
 - .3 Providing authorizations to the Consultant on various tasks throughout the project.
 - .3 Unless directed otherwise by the Departmental Representative, the Consultant obtains all Federal approvals necessary for the work.
- .5 PWGSC Professional & Technical Resources Team
 - .1 Provides professional advice and quality assurance reviews of consultant deliverables by Architectural and Engineering professional disciplines.
 - .2 Offers expert technical advice on related project issues, such as functional programming, options analysis, risk management, cost planning, scheduling, contract interpretation, specifications, terms of reference, commissioning, claims management, project delivery approach and project compliance.



- .3 Participates regularly in design phases and may attend (during construction), contractor meetings and conduct field reviews on behalf of the Departmental Representative.
- .4 Provides a Design Manager for the project, who will coordinate the services of the Professional & Technical Resources Team through the Departmental Representative;
 - .1 The Design Manager is the assembler and coordinator of the Resources Team of Architects, Engineers, Interior Designers, Project Planners, Cost Planners and Commissioning Specialists, all with specific areas of expertise.
- .6 PWGSC Commissioning Specialist represents the Departmental Representative's interests in the commissioning process for buildings by:
 - .1 Providing technical advice on O&M matters, operational criteria and quality assurance on the commissioning process throughout the project life cycle;
 - .2 Coordinating and overseeing internal PWGSC commissioning activities during all project phases to ensure that O&M concerns are addressed;
 - .3 Working closely with the Consultant, the Consultant's Commissioning Manager, the Contractor, and the Departmental Representative for Commissioning activities and,
 - .4 Reviews all documentation and reported results relative to commissioning throughout the project delivery.

3.9 USER DEPARTMENT RESPONSIBILITIES

- .1 The User Department Project Leader
 - .1 Is accountable for the expenditure of public funds and delivery of the project in accordance with terms accepted by the Treasury Board
 - .2 Reports to senior User Department executive management
 - .3 Will play several critical roles for the successful implementation of the project, as follows:
 - .1 Coordinate the quality, timing and completeness of information and decisions relating to issues related to the functional performance of the facility;

3.10 REVIEW AND APPROVAL BY PROVINCIAL AND MUNICIPAL AUTHORITIES

- .1 The federal government generally defers to provincial and municipal authorities for specific regulations, standards and inspections but in areas of conflict, the more stringent authority prevails.
- .2 Municipal authority review
 - .1 The purpose of this review is information and awareness;
 - .2 Submissions will be reviewed at the completion of specific phases as outlined in the Required Services Section of the TOR.

3.11 BUILDING PERMITS AND OCCUPANCY PERMITS

- .1 The Consultant will support the Contractor in applying for building permits by providing the required documentation.
 - .1 These documents will be submitted at phases as requested by the municipal authorities.
 - .2 The Consultant will negotiate and resolve building permit related issues.
- .2 The Consultant shall support the Contractor in its application for an occupancy permit and coordinate the resolution of all outstanding issues relating to the permit.
- .3 The Contractor shall pay for the permits on behalf of PWGSC.

3.12 TECHNICAL AND FUNCTIONAL REVIEWS

- .1 This includes both COE reviews and User Department reviews.



- .1 The Purpose of these reviews is technical and functional quality assurance;
- .2 Submissions will be reviewed at the completion of specific phases as outlined in the Required Services Section of the TOR.
- .2 HRSDC Reviews of building projects
 - .1 The purpose of these reviews is for fire protection, health and life safety;
 - .2 Submissions will be reviewed at the completion of specific phases as outlined in the Required Services Section of the TOR.



APPENDIX A CHECKLISTS

A.1 CHECKLIST FOR THE SUBMISSION OF CONSTRUCTION DOCUMENTS

AI.1 TITLE BLOCK

| | | |
|---------------------------|----------------------|-------------------------|
| Project Title: | | Date: |
| | | |
| Project Location: | | Project Number: |
| | | |
| Consultant's Name: | | Contract Number: |
| | | |
| PWGSC PM: | Review Stage: | |
| | | |

AI.2 STANDARDS & GUIDELINES

| ITEM | Checked by: | Progress Submission | Pre-Tender or Tender Ready Submission | Comments: |
|---------------------------------------|--|---------------------|---------------------------------------|-----------|
| 1. General | | | | |
| The design meets the requirements of; | | | | |
| .1 | National Building Code - 2005 | | | |
| .2 | National Fire Code - 2005 | | | |
| .3 | National Plumbing Code - 2005 | | | |
| .4 | Canada Labour Code | | | |
| .5 | NFPA 10 - Standard for Portable Fire Extinguishers - 2002 | | | |
| .6 | NFPA 13 - Standard for the Installation of Sprinkler Systems - 2007 | | | |
| .7 | NFPA 14 – Standard for the Installation of Standpipe and Hose Systems - 2003 | | | |
| 2. Treasury Board | | | | |
| The design meets the requirements of; | | | | |
| .1 | Chapter 3-6: Fire Protection Standard for Correctional Institutions. http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=13580 | | | |
| .2 | Chapter 3-2: Fire Protection Standard for Design & Construction. http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=13581 | | | |
| .3 | Fire Protection Standard for Electronic Data Processing | | | |



| | | | | |
|--|--|--|--|--|
| Equipment. http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=13582 | | | | |
| <p>3. HRSDC Fire Protection Engineer Standards</p> <p>The design meets the requirements of;</p> | | | | |
| .1 Federal Fire Protection Standards. http://www.hrsdc.gc.ca/eng/labour/fire_protection/policies_standards/index.shtml | | | | |
| .2 FC-403 Standard for Sprinkler Systems. http://www.hrsdc.gc.ca/eng/labour/fire_protection/policies_standards/commissioner/403/page00.shtml | | | | |
| .3 FC-311-M Standard for Record Storage. http://www.hrsdc.gc.ca/eng/labour/fire_protection/policies_standards/commissioner/311/page00.shtml | | | | |
| <p>4. Labour Canada Standards</p> <p>The design meets the requirements of;</p> | | | | |
| .1 Canada Labour Code. http://laws.justice.gc.ca/en/L-2/ | | | | |
| .2 Canada Occupational Health and Safety Regulations. http://laws.justice.gc.ca/eng/SOR-86-304/index.html | | | | |
| .3 Movable Storage Units Standard. http://www.hrsdc.gc.ca/eng/labour/fire_protection/policies_standards/guidelines/mobile.shtml | | | | |
| <p>5. ASHRAE Standards</p> <p>The design meets the requirements of;</p> | | | | |
| .1 ANSI/ASHRAE 55 – 2004 Thermal Environmental Conditions for Human Occupancy | | | | |
| .2 ASHRAE 62.1 – 2007 – Ventilation for Acceptable Indoor Air Quality | | | | |
| .3 ASHRAE Applications Handbook | | | | |
| .4 ASHRAE Fundamentals Handbook | | | | |



| | | | | |
|---|--|--|--|--|
| 6. PWGSC MD Standards The design meets the requirements of; | | | | |
| .1 MD 15116 – Computer Room Air Conditioning Systems - 2006 | | | | |
| .2 MD 15128 – Minimum Guidelines for Laboratory Fume Hoods – March 2004 | | | | |
| .3 MD 15129 – Perchloric Acid Fume Hoods - 2006 | | | | |
| .4 MD 15161 – Guidelines for the control of Legionella in mechanical systems | | | | |
| .5 MD 250005 – Energy Monitoring and Control Systems Design Guidelines - 2009 | | | | |

AI.3 SPECIFICATIONS – ALL DISCIPLINES

| ITEM | Checked by: | Progress Submission | Pre-Tender or Tender Ready Submission | Comments: |
|--|-------------|---------------------|---------------------------------------|-----------|
| 1. General The Specifications meet the requirements of; | | | | |
| .1 The NMS Users Guide. . | | | | |
| .2 Masterformat 2004 | | | | |
| .3 The current edition of the NMS database | | | | |
| .4 Deletion of “Related Sections” and “Section Includes” throughout. | | | | |
| .5 PWGSC GCs for projects tendered through PWGSC | | | | |
| .6 Consistent use of CCDC or other for privately tendered projects. | | | | |
| .7 Non-proprietary Specifications. | | | | |
| .8 Being completely edited with removal of all square choice brackets and Spec Notes. | | | | |
| .9 Including all relevant Sections as evident by the by the scope of work indicated by the drawings. | | | | |
| .10 Not referring to the Tender Submission (Contract B) | | | | |
| .11 Use of command imperative style of language. | | | | |
| .12 Formatting in either the NMS | | | | |



| | | | | | |
|-----|---|--|--|--|--|
| | 1/3 - 2/3 page format or the Construction Specifications Canada full page format. | | | | |
| .13 | Each Section starting on a new page and the Project Number, Section Title, Section Number and Page Number show on the header of each page only. | | | | |
| .14 | Specification headers not including date or consultant's name. | | | | |
| .15 | Departmental Representative being used throughout instead of Engineer, PWGSC, Owner, Consultant or Architect. (That is; the contractual entity) | | | | |
| .16 | Non use of notations such as: "verify on site", "as instructed", "to match existing", "example", "equal to", "equivalent to" and "to be determined on site by". | | | | |
| .17 | Dimensions being provided in metric only. | | | | |
| .18 | Indicating the latest edition of all references noted in Part 1 of each Section and that un-used reference Standards are deleted. | | | | |
| .19 | No bolding of text. | | | | |
| .20 | Use of Western Regions standard payments procedures clause. | | | | |

AI.4 DRAWINGS GENERAL – ALL DISCIPLINES

| ITEM | Checked by: | Progress Submission | Pre-Tender or Tender Ready Submission | Comments: |
|--|-------------|---------------------|---------------------------------------|-----------|
| 1. General | | | | |
| The Drawings meet the requirements of; | | | | |
| .1 PWGSC Western Region AutoCAD drafting standards. | | | | |
| .2 Using the "toolkit" and the "drawing checker". | | | | |
| .3 All dimensions in SI. No dual dimensioning has been used. | | | | |
| .4 Providing a north arrow. | | | | |
| .5 Providing a legend on all relevant sheets. | | | | |
| .6 Indicating grid lines on all | | | | |



| | | | | | |
|-----|--|--|--|--|--|
| | sheets. | | | | |
| .7 | Using standard scales. (1:50, 1:100 etc.) | | | | |
| .8 | Cross referencing and detailing is consistent. | | | | |
| .9 | No Specifications on drawings. | | | | |
| .10 | All notes being written in the command imperative style of speech. | | | | |
| .11 | Not naming the "Contractor" or "sub trades" in the notes. | | | | |
| .12 | Numbering all rooms on all floor plans. | | | | |
| .13 | Using appropriate line weights to differentiate new versus existing versus demolition. | | | | |
| .14 | Using font sizes and types following PWGSC drafting standards. | | | | |
| .15 | Providing separate drawings for demolition and new work. | | | | |
| .16 | Drawing acceptance by the FPE of HRSDC. | | | | |

AI.5 DRAWINGS - DISCIPLINE SPECIFIC

| ITEM | Checked by: | Progress Submission | Pre-Tender or Tender Ready Submission | Comments: |
|---|-------------|---------------------|---------------------------------------|-----------|
| 1. Architectural | | | | |
| The Drawings meet the requirements of; | | | | |
| .1 Providing a Building Code Analysis. | | | | |
| .2 Indicating fire separations and firewalls and rating. | | | | |
| .3 Providing a complete site plan with all related details. | | | | |
| .4 Providing a fully detailed reflected ceiling plan showing lighting, diffusers, sprinkler heads, etc. | | | | |
| .5 Wall sections being coordinated with the structural and other disciplines drawings. | | | | |
| .6 Building elevations showing all mechanical and electrical ancillaries. | | | | |
| .7 Sub surface drainage being shown on the foundation plans and coordinated with all other disciplines. | | | | |



| | | | | | |
|--|--|--|--|--|--|
| .8 | Accessibility conforming to CAN/CSA 651-04. | | | | |
| .9 | Coordination of door, finish, hardware schedules in conjunction with fire separations and other disciplines. | | | | |
| .10 | All conflict points identified by BIM have been resolved. | | | | |
| 2. Structural | | | | | |
| The Drawings meet the requirements of; | | | | | |
| .1 | Ensuring that General Notes provide additional information that is NOT covered in Specifications. | | | | |
| .2 | Remove all information that is or should be covered by the Specifications. | | | | |
| .3 | Note loads used for design. | | | | |
| .4 | PWGSC policy of using general product descriptions, not proprietary product names followed. | | | | |
| .5 | Table of Abbreviations used provided. | | | | |
| .6 | Section bubbles properly cross referenced. | | | | |
| .7 | Coordination with all other disciplines. | | | | |
| 3. Mechanical | | | | | |
| The Drawings meet the requirements of; | | | | | |
| .1 | Separate drawings for Plumbing, HVAC, Fire Suppression, etc. | | | | |
| .2 | Provision for humidification with a clean source of water and no standing water | | | | |
| .3 | Provision of separate HVAC zoning for each unique thermal zone. | | | | |
| .4 | Providing Ventilation to ASHRAE 62.1. | | | | |
| .5 | Meets all requirements of ASHRAE 62.1, Section 5. | | | | |
| .6 | All thermostats are wall mounted. | | | | |
| .7 | The building and systems and equipment meeting all requirements of Section 5 of ASHRAE 62.1. | | | | |
| .8 | Conformance to ASHRAE 55 for; | | | | |
| .1 | Operative | | | | |



| | | | | |
|--|--|--|--|--|
| temperature .2 Air motion .3 Radiant Temperature Asymmetry .4 Draft .5 Vertical Temperature Difference .6 Floor Surface Temperature .7 Temperature Variations with Time .8 Cyclic Variations .9 Drifts and Ramps | | | | |
| .9 Providing building cross-sections at all key locations showing clearances for the mechanical installation and access for maintenance. | | | | |
| .10 Providing sufficient access to mechanical equipment for maintenance. | | | | |
| .11 Providing mechanical schematics showing design pressure and temperatures as well as all instrumentation and control points labels. | | | | |
| .12 Design complies with all referenced PWGSC MD Standards. | | | | |
| .13 Equipment schedules on the drawings coordinate and agree with the Book Specifications. | | | | |
| .14 Duct attenuation is designed to conform to the STC requirements shown on the architectural drawings. | | | | |
| .15 Coordination with all other disciplines. | | | | |
| 4. Electrical The Drawings meet the requirements of; | | | | |
| .1 Separate drawings for Lighting, Power, Fire Alarm System, Communication and Data, Security & CCTV etc. | | | | |
| .2 Verification and acceptance of the Grounding condition for this project. | | | | |
| .3 The Overcurrent and Short Circuit Study and confirming all components are fully coordinated. | | | | |
| .4 The Arch-Flash Study and confirming all components are fully coordinated. | | | | |
| .5 Providing Arch protection | | | | |



| | | | | | |
|--|---|--|--|--|--|
| | warning signs and labeling. | | | | |
| .6 | Providing lighting Levels in accordance with the National Building Code and IESNA recommendations. | | | | |
| .7 | Not using Armored Cable. Using Armored Cable will be allowed only for jumping from one light fixture to the other in a distance up to 3m. | | | | |
| .8 | Providing identification for each circuit including: .1 Name .2 Voltage, .3 Phase, .4 Amps, .5 Circuit-s .6 Fed from Panel, Destination. | | | | |
| .9 | The Voltage Drop Calculation for each circuit and conformance to CEC requirements. | | | | |
| .10 | Providing phase load and total load for each panel and ensuring proper balance of the Electrical System. | | | | |
| .11 | Coordination with all other disciplines. | | | | |
| 5. Civil | | | | | |
| The Drawings meet the requirements of; | | | | | |
| .1 | The design criteria. (e.g. design vehicle for surface structures, design period and other data for WM.WW, SW and other systems including data and calculations showing design requirements and provided capacities) | | | | |
| .2 | The reference standards. (e.g. minimum service connection pipe or minimum WM size, etc have been used for municipal works, name the local authority whose standards are used.) | | | | |
| .3 | Indicating existing sub-grade soil properties and strength that has been used for the design is indicated on drawings or in a report. | | | | |
| .4 | Indicating Bench Marks used for the Topographic Survey are shown with Northing, Easting and elevation data. | | | | |
| .5 | Indicating the Final | | | | |



| | | | | | |
|----|--|--|--|--|--|
| | Geometric layout for existing and new infrastructures and facilities including centerline of all access roads and pipes. The data provided includes Northing and Easting of all points including start and end point and for all other points wherever there is change in direction, and all horizontal curve data | | | | |
| .6 | Providing typical X-sections for all structures, including type, thickness of various materials for pavement structures, and pipe diameter, material types and thickness and SDR values. | | | | |
| .7 | Providing design grades and slopes. | | | | |
| .8 | Providing details for all infrastructures and facilities indicating all works and type of materials and all geometrics and dimensions.. | | | | |
| .9 | Coordination with all other disciplines. | | | | |



APPENDIX B SPECIFICATION TOC STANDARDS

B.1 GENERAL

BI.1 SPECIFICATIONS

.1 List all Divisions, Sections (by number and title) and number of pages.

BI.2 DRAWINGS

.1 List all Drawings by number and title.

B.2 SAMPLE OF TABLE OF CONTENTS

| Project No: R.xxxxxx | Table of Contents | Index Page I of xx |
|-------------------------|-------------------|-----------------------|
|-------------------------|-------------------|-----------------------|

SPECIFICATIONS:

- .3
- .4
- No. Pages
- .5 Division 01 – GENERAL REQUIREMENTS
- .6 01 11 00 – Summary of Work xx pages
- .7 01 14 00 – Work Restrictions xx pages
- .8 01 29 00 – Payment Procedures xx pages
- .9 Division 02 – EXISTING CONDITIONS
- .10 ETC.
- .11

DRAWINGS:

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



APPENDIX C ADDENDUM FORMAT STANDARD

C.1 SAMPLE OF ADDENDUM FORMAT

CI.1 DRAWINGS

- .1 Indicate drawing number and title, then list changes or indicate revision number and date, and re-issue drawing with addendum.

CI.2 SPECIFICATIONS

- .1 Indicate section number and title.
- .2 List all changes (i.e. delete, add or change) by article or paragraph

| | |
|---|------------------------|
| Project Title: | Addendum No: |
| | |
| Project Location: | Project Number: |
| | |
| Consultant's Name: | Date: |
| | |
| The following changes in the bid documents are effective immediately. This addendum will form part of the contract documents | |
| Drawings | |
| 1 AI Architectural | |
| Specifications | |
| 1 Section 01 00 10 - General Instructions | |
| .1 Delete article (xx) entirely. | |
| .2 Refer to paragraph (xx) and revise "xxx", to read "xxxx".. | |
| 2 Section 23 05 00 - Common Work Results - Mechanical | |
| .1 Add new article (x.xx) as follows: | |



APPENDIX D DIGITAL TENDER DOCUMENTS STANDARDS

D.1 CONVENTION STANDARDS FOR TENDER DOCUMENTS

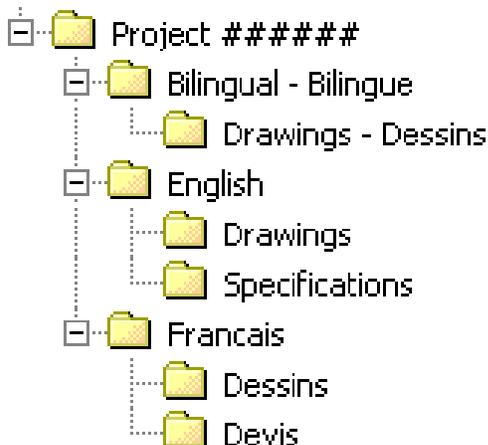
DI.1 USER MANUAL

- .1 Refer to the User manual on directory structure and naming convention standards for construction tender documents on CD ROM.
 - .1 Issued by: Real Property Contracting Directorate, PWGSC,
 - .2 Version 1.0, May 2005.

DI.2 PREFACE

- .1 The Government of Canada (GoC) has committed to move towards an electronic environment for the majority of the services it offers.
- .2 This covers the advertisement and distribution of contract opportunities, including construction solicitations.
- .3 As a result, it is now necessary to obtain a copy of construction drawings and specifications (in PDF format *without* password protection) on one or multiple CD-ROM to facilitate for the GoC the transfer of the construction drawings and specifications electronically to the Government Electronic Tendering System (GETS).
- .4 There is therefore a need to adopt a common directory structure and file-naming convention to ensure that the information made available to contractors electronically and in hard (printed) copy is in accordance with the sequence adopted in the real property industries, both for design and construction.
- .5 This manual defines the standard to be followed by both consultants and print shops at time of formatting and organizing the information, whether drawings and specifications are created by scanning print documents or saved as PDF files from the native software (AutoCAD, NMS Edit, MS-Word, etc...) in which these were created.
- .6 It is important to note that the procedure described in this manual is not an indication that consultants are relieved from following the established standards for the production of drawings and specifications.
- .7 The sole purpose of this manual is to provide a standard for the organization and naming of the electronic files that will be recorded on CD-ROM.

DI.3 DIRECTORY STRUCTURE



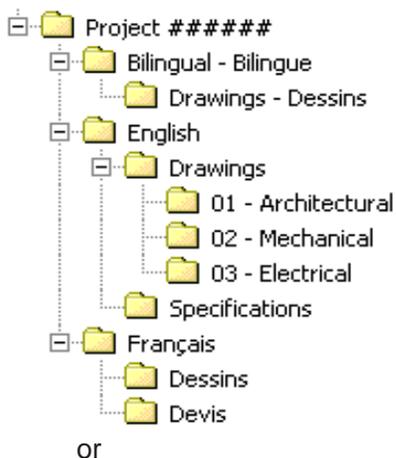


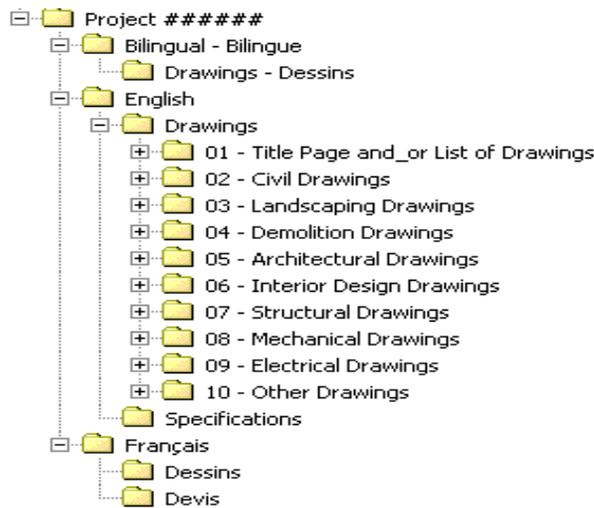
DI.4 1ST, 2ND AND 3RD TIER SUB-FOLDERS

- .1 Each CD-ROM, whether it is for the original solicitation (tender call) or for an amendment (addendum), must have the applicable elements of the following high-level Directory Structure created:
- .2 The following important points are to be noted about the Directory Structure:
 - .1 The “Project #####” folder is considered the 1st Tier of the Directory Structure where ##### represents each digit of the Project Number.
 - .2 The Project Number must always be used to name the 1st Tier folder and it is always required.
 - .3 Free text can be added following the Project Number, to include such things as a brief description or the project title;
- .3 The “Bilingual - Bilingue”, “English” and “Français” folders are considered the 2nd Tier of the Directory Structure. The folders of the 2nd Tier **cannot** be given any other names since GETS uses these names for validation purposes. At least one of the “Bilingual - Bilingue”, “English” and “Français” folders is always required, and these must always have one of the applicable sub-folders of the 3rd Tier;
- .4 The “Drawings - Dessins”, “Drawings”, “Specifications”, “Dessins” and “Devis” folders are considered the 3rd Tier of the Directory Structure. The folders of the 3rd Tier **cannot** be given any other names since GETS also uses these names for validation purposes. There must be always at least one of the applicable 3rd Tier folder in each document.
- .5 IMPORTANT NOTE:
 - .1 The applicable elements of the Directory Structure (1st, 2nd and 3rd Tier folders) are always required and cannot be modified.

DI.5 4TH TIER SUB-FOLDERS FOR DRAWINGS

- .1 The “Drawings – Dessins”, “Drawings” and “Dessins” folders must have 4th Tier sub-folders created to reflect the various disciplines of the set of drawings.
- .2 Because the order of appearance of the sub-folders on the screen will also determine the order of printing, it is necessary to start with a number the identification name of the sub-folders in the “Drawings – Dessins”, “Drawings” and “Dessins” folders.
- .3 Note:
 - .1 The first sub-folder must be always reserved for the Title Page and/or the List of Drawings unless the first drawing of the set is an actual numbered discipline drawing.
- .4 Examples of 4th Tier sub-folders for drawings:





DI.6 NAMING CONVENTION - 4TH TIER DRAWINGS

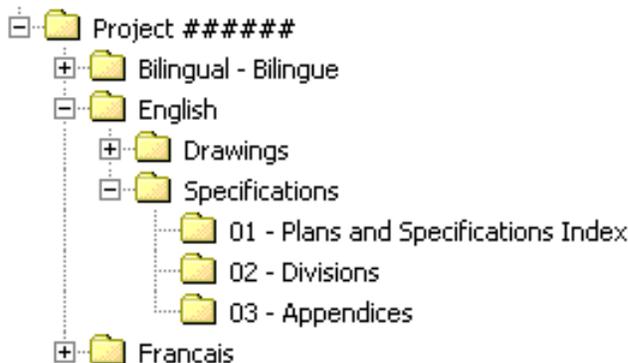
- .1 The 4th Tier sub-folders for drawings must adhere to the following standard naming convention.
 - .1 For the “Drawings” and “Dessins” folders:
 - 1 ## - Y, Where:
 - 1 ## = A two digit number ranging from 01 to 99 (leading zeros must be included)
 - 2 Y = The title of the folder
 - 2 Example: 03 – Mechanical
 - .2 For the “Drawings - Dessins” folder:
 - 1 ## - Y – Z, Where:
 - 1 ## = A two digit number ranging from 01 to 99 (leading zeros must be included)
 - 2 Y = The English title of the folder
 - 3 Z = The French title of the folder
 - 2 Example: 04 - Electrical – Électricité
- .2 It should be noted that the numbering of the 4th Tier sub-folders is for sorting purposes only and is not tied to a specific discipline. For example, “Architectural” could be numbered 05 for a project where there is four other disciplines before “Architectural” in the set of drawings or 01 in another project where it’s the first discipline appearing in the set.
- .3 It is essential to ensure that the order of the drawings on the CD-ROM be exactly the same as in the hard copy set. GETS will sort each drawing for both screen display and printing as per the following rules:
 - .1 The alphanumerical sorting is done on an ascending order;
 - .2 The alphanumerical order of the sub-folders determines the order of appearance on the screen as well as the order of printing (as an example: all the drawing PDF files in the 01 sub-folder will be printed in alphanumerical order before the drawings in the 02 sub-folder etc...);
 - .3 Each drawing PDF file within each sub-folder will also be sorted alphanumerically. This will determine the order of appearance on the screen as well as the order of printing



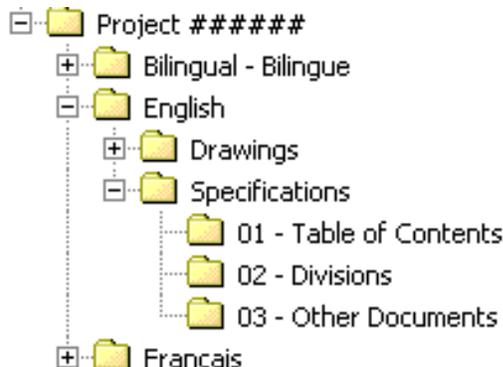
(i.e. Drawing A001 will be printed before Drawing A002, Drawing M02 before Drawing M03, etc...).

DI.7 4TH TIER SUB-FOLDERS FOR SPECIFICATIONS

- .1 The “*Specifications*” and “*Devis*” folders must have 4th Tier sub-folders created to reflect the various elements of the specifications.
- .2 Because the order of appearance of the sub-folders on the screen will also determine the order of printing, it is necessary to start with a number the identification name of the sub-folders in the “*Specifications*” and “*Devis*” folders.
- .3 Examples of 4th Tier sub-folders for specifications:



or



DI.8 NAMING CONVENTION - 4TH TIER SPECIFICATIONS

- .1 The 4th Tier sub-folders for specifications must adhere to the following standard naming convention.
 - .1 For the “*Specifications*” and “*Devis*” folders:
 - 1 ## - Y, Where:
 - 1 ## = A two digit number ranging from 01 to 99 (leading zeros must be included)
 - 2 Y = The title of the folder
 - 2 Example: 02 – Divisions
 - .2 It should be noted that the numbering of the 4th Tier sub-folders is for sorting purposes only and is not tied to an element of the specifications.



- .3 It is essential to ensure that the order of the elements of the specifications on the CD-ROM be exactly the same as in the hard copy. GETS will sort each element of the specifications for both screen display and printing as per the following rules:
- .4 The alphanumerical sorting is done on an ascending order;
 - .1 The alphanumerical order of the sub-folders determines the order of appearance on the screen as well as the order of printing (as an example: all the specifications PDF files in the 01 sub-folder will be printed, in alphanumerical order before the PDF files in the 02 sub-folder, etc...);
 - .2 Each specifications PDF file within each sub-folder will also be sorted alphanumerically.
 - l This will determine the order of appearance on the screen as well as the order of printing (i.e. Division 01 will be printed before Division 02, 01 - Appendix A before 02 - Appendix B, etc...).

DI.9 NAMING CONVENTION FOR PDF FILES

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

DI.10 DRAWINGS

- .1 Each drawing must be a separate single page PDF file.
- .2 The naming convention of each drawing must be:
 - .1 X### - Y, Where;
 - l X = The letter or letters from the drawing title block (“A” for Architectural or “ID” for Interior Design for example) associated with the discipline,
 - 2 ### = The drawing number from the drawing title block (one to three digits),
 - 3 Y = The drawing name from the drawing title block (for bilingual drawings, the name in both English and French is to appear).
 - .2 Example; A001 - First Floor Details.
- .3 Each drawing that will be located in the appropriate discipline 4th Tier sub-folders must be named with the same letter (“A” for Architectural Drawings for example) and be numbered.
- .4 The drawing number used to name the PDF file must match as much as possible the drawing number of the actual drawing (the exception being when leading zeros are required).
- .5 The following important points about drawings are to be noted:
 - .1 The drawing PDF files within each sub-folder are sorted alphanumerically for both displaying and printing. If there are more than 9 drawings in a particular discipline the numbering must use at least two numerical digits (i.e. A01 instead of A1) in order to avoid displaying drawing A10 between A1 and A2.
 - l The same rule applies when there are more than 99 drawings per discipline i.e. three digits instead of two must be used for the numbering (for example M003 instead of M03);
 - .2 If drawing PDF files are included in the “Bilingual - Bilingue” folder, these cannot be included as well in the “English” and/or “Français” folders;
 - .3 If drawings not associated with a particular discipline are not numbered (Title Page or List of Drawings for example), these will be sorted alphabetically.
 - l While this does not represent a problem if there is only one drawing in the sub-folder, it could disrupt the order when there are two or more drawings. If the alphabetical order of the drawings name does not represent the order on the

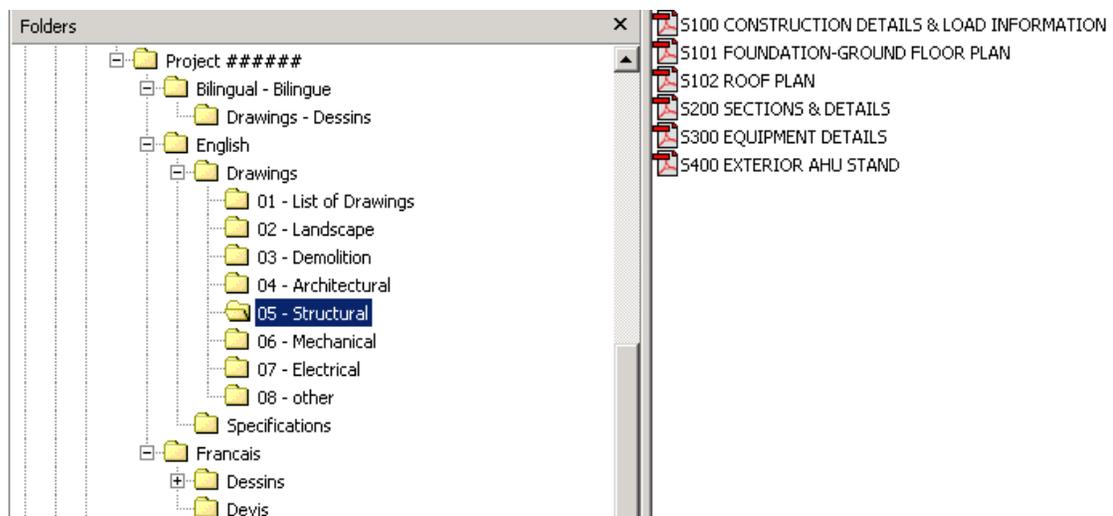


hard copy set, the drawings are to be named as per the following standard convention when converted in PDF format to ensure proper display and printing order.

- 1 ## - Y, Where:
 - 1 ## = A two digit number ranging from 01 to 99 (leading zeros must be included)
 - 2 Y = The name of the drawing
- 2 Example:
 - 1 01 - Title Page
 - 2 02 - List of Drawings

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

DI.11 EXAMPLE OF A 4TH TIER DRAWINGS SUBFOLDER’S CONTENT:



DI.12 SPECIFICATIONS

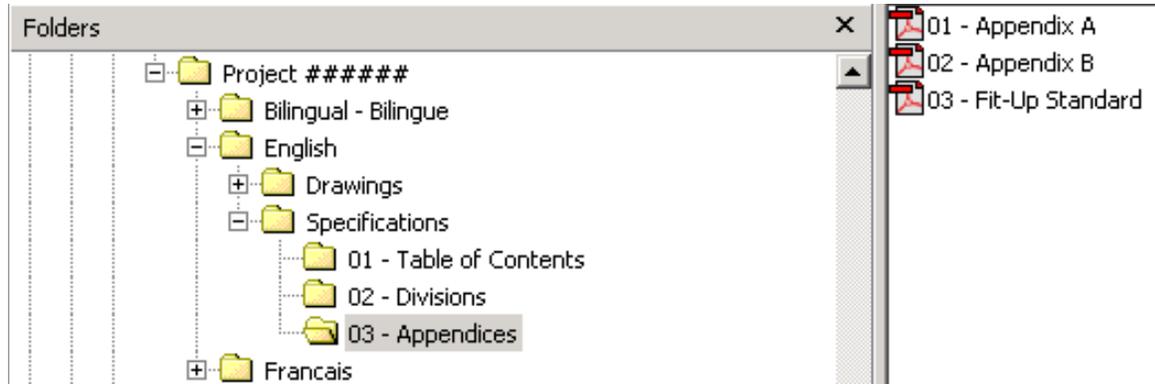
- .1 Each Specifications Division must be a separate PDF file and all pages contained in each PDF file must have the same physical size (height, width).
- .2 The Plans and Specifications Index must also be a separate PDF file.
- .3 If there are other documents that are part of the Specifications (e.g.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

DI.13 DOCUMENTS OTHER THAN SPECIFICATIONS DIVISIONS

- .1 Because PDF files within the Specifications sub-folders are sorted alphanumerically (in ascending order) for both on screen display and printing order, all files that appear in folders other than the “*Divisions*” sub-folder must be named using a number:
 - .1 ## - Y, Where:
 - 1 ## = Two digit number ranging from 01 to 99 with leading zeros required
 - 2 Y = Name of the document
 - .2 Example: 01 - Plans and Specifications Index



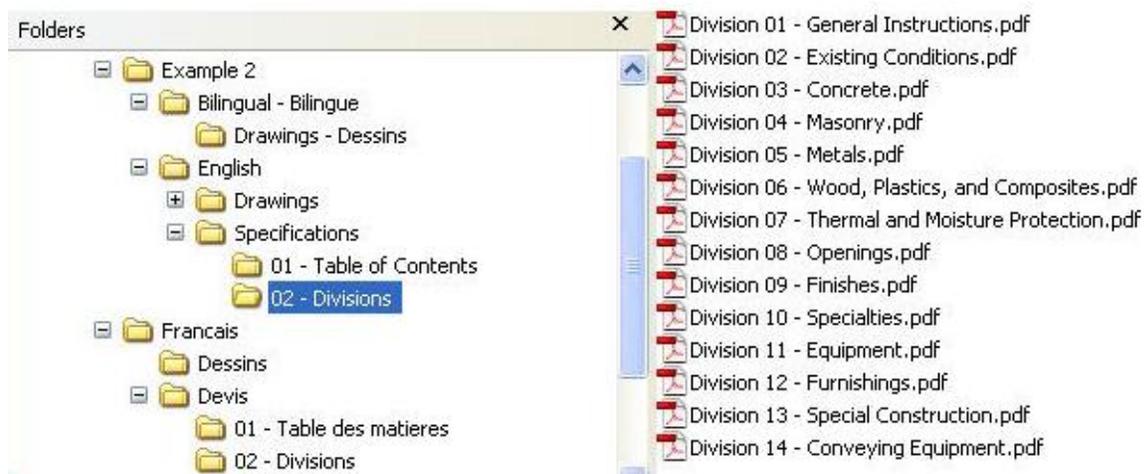
DI.14 EXAMPLE OF A SUB-FOLDER CONTENT (SUB-FOLDER OTHER THAN “DIVISIONS”):



DI.15 SPECIFICATIONS DIVISIONS

- .1 The Specifications Divisions must be named as follows:
 - .1 Division ## - Y, Where:
 - 1 Division ## = The actual word “Division” followed by a space and a two digit number ranging from 01 to 99 (with leading zeros required)
 - 2 Y = Name of the Specifications Division as per CSC/CSI MasterFormat™
 - .2 Example: Division 05 – Metals
- .2 The following important point about specifications is to be noted:
 - .1 The Numbering of the Divisions cannot be altered from CSC/CSI MasterFormat™ even if some Divisions are not used in a given project.
 - 1 For example, Division 05 will always remain Division 05 even if Division 04 is not used for a given project.

DI.16 EXAMPLE OF A “DIVISIONS” SUB-FOLDER CONTENT:





DI.17 CD-ROM LABEL

- .1 Each CD-ROM is to be labelled with the following information:
 - .1 Project Number;
 - .2 Project Title;
 - .3 Documents for Tender;
 - .4 CD X of X.
- .2 Example:
 - .1 Project 123456;
 - .2 Repair Alexandra Bridge;
 - .3 Documents for Tender;
 - .4 CD 1 of 1.



APPENDIX E PDF CREATION STANDARDS

E.1 CONVERTING CONSTRUCTION DRAWINGS INTO PDF

E1.1 REFERENCE GUIDE

- .1 Refer to the basic reference guide on converting construction drawings into portable document format (PDF), Issued by Real Property Contracting Directorate. PWGSC, Version 1.0, May 2005.

E1.2 PREFACE

- .1 Portable Document Format (PDF) is the standard format for documents that are posted on the Government Electronic Tendering System (GETS).
- .2 There is therefore a need to obtain from architectural and engineering consultants an electronic copy of drawings and specifications in PDF for tendering Government of Canada (GoC) construction projects.
- .3 In order to have the highest quality in term of resolution and printing, consultants should to the greatest extent possible have the PDF drawing and specification files derived from the native software in which they were created. Scanning is permissible but only in special circumstances, for example when there is no electronic version of a drawing being included in a construction tender package.
- .4 The purpose of this document is to provide basic information on the conversion of Computer Aided Design and Drafting (CADD) drawings in PDF. Creating a PDF file from a CADD drawing is a relatively simple process once all the necessary configurations and settings are in place.
 - .1 It actually should not take any longer than it would take to create a plot file or to send a drawing to a printer.
 - .2 The information in this guide is not intended to cover all technical aspects of the conversion, which can be done using various methods, but rather to highlight important points about the process and file settings.
 - .3 The conversion of specifications is not covered in this basic reference guide since it does not require any special configuration or setting.
- .5 The information provided in this basic reference guide is not an indication that consultants are relieved from following the established standards for the production of drawings and specifications.
 - .1 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.

E1.3 PRINTER DRIVERS

- .1 Adobe Acrobat provides two different printer drivers that are able to convert CADD drawing into PDF format, Acrobat PDF Writer and Acrobat Distiller.
- .2 Before creating a PDF file from a CADD drawing, a choice must be made as to which one will be used.
- .3 Acrobat PDF Writer is a non-PostScript printer driver that works best with documents that don't contain complex graphics.
- .4 Acrobat Distiller is a PostScript printer driver that works best with documents that contain PostScript fills, Encapsulated PostScript (EPS) graphics, or other complex elements.
- .5 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.



E1.4 PRINTER CONFIGURATION

- .1 Before converting a CADD drawing to PDF, an Acrobat printer configuration file for the PDF paper size needs to be created.
- .2 This function can be done in the CADD software rather than using a custom paper size defined for the Acrobat distiller feature.
- .3 The recommended method is to add a PostScript Adobe plotter in the CADD software and making the necessary setting in terms of media source and size, scale and orientation.
- .4 The configuration can then be re-used to simplify the conversion process for future files that use the same page size.
- .5 As an alternative, although not recommended, a custom-defined size can be created in Acrobat Distiller in the *properties* menu.

E1.5 CREATING PDF FILES

- .1 Once the printer configuration has been done in the CADD software, open Acrobat Distiller and make the necessary settings in the *preferences* and *job options* sub-menu.
 - .1 Ensure that the page size match the sheet size selected in the CADD software to create the file.
 - .2 Particular settings can be saved under different names for future use.
- .2 With the Acrobat Distiller application open, ensure the required sheet size is displayed in the job options window. Then it is simply a matter of bringing the CADD file into the Acrobat Distiller creation box.
- .3 A progress bar will show during the conversion and the newly converted PDF file should open up and be displayed for verification.

E1.6 PDF FILES SETTINGS

- .1 Security
 - .1 Adobe Acrobat contains security features that can be used to secure the files by restricting any changes to the files.
 - .2 Since the files will be posted on MERX and will be used for printing copies, the files must not be password protected and must allow printing.

E1.7 DRAWING ORIENTATION

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

E1.8 FONT TYPE

- .1 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.

E1.9 RESOLUTION

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

E1.10 SCALE

- .1 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.

E1.11 SCANNING



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

EI.12 FINAL CHECKLIST

- .1 When the drawing file has gone through the PDF conversion, it is recommended to open it and verify the following:
 - .1 That the sheet size displayed is what was intended to be created (the size is viewable in the lower left corner of the drawing);
 - .2 That the orientation of the sheet is correct;
 - .3 That the line types, line weights and fonts match the CADD drawing.
 - .4 That the PDF file is in black and white;
 - .5 That each drawing is a single PDF file;
 - .6 That the PDF file is not password protected and printable.
- .2 If all the items are verified, the PDF file is useable.

EI.13 ADDITIONAL INFORMATION

- .1 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.



APPENDIX F DEFINITIONS

F.1 TERMINOLOGY

| TERMS | DESCRIPTION |
|-----------------------------|--|
| As-builts/Record Drawings | See Record Drawings |
| Base Building | Refers to the building shell, as opposed to the tenant fit-up. It includes finished floors, exterior walls, interior core, finished ceilings with lighting, and other building systems for the planned general use of the building. Generally, the work for the base building is separate from the work for tenant-fit-ups |
| Circulation | Space used, primarily by people, to move from one area to another. It includes major as well as secondary aisles. |
| Client | A term that refers to the client, the client department or user department |
| Co-location | Placing items together for better organization |
| Consultant | The word refers both to an individual consultant, or a consultant team. The consultant is generally selected by PWGSC using a Request for Proposal. |
| Contractor | The company, organization or firm who is responsible for the construction of the project |
| Consolidation | Reducing the number of co-located items by placing them in a common floor facility to eliminate duplication of space. |
| Constant dollar estimate | This is an estimate expressed in terms of the dollars of a particular base fiscal year. |
| Cost Specialist | Refers to the cost estimating, planning and control team or an individual performing these functions. |
| Current dollar estimate | Refer to: <i>budget year dollars</i> |
| Budget-year dollars | This is an estimate based on costs arising in each FY of the project schedule, which is escalated to account for inflation and other economic factors affecting the period covered by the estimate Budget year dollars is also be referred to as Nominal dollars or Current dollars |
| Departmental Representative | The person designated in the contract, or by written notice to the Consultant or Contractor, to act for PWGSC for the purposes of the contract. It can also be a person designated in writing by the Departmental Representative to act on his/her behalf. In most cases, the PWGSC Project Manager is the Departmental Representative |
| EMV | Expected monetary value of risk event (i.e. cost or saving to the project if risk event occurs) |



| | |
|---|--|
| Final Certificate of Completion | A document issued by the Project Manager after the final inspection by the Project Acceptance Board. The final payment to the Contractor by PWGSC is based on the final certificate of completion |
| Final Inspection | The inspection performed by the Project Acceptance Board after project completion and after correction of deficiencies identified during Interim Inspection |
| Fit-up for initial occupancy | The preparation of accommodation for initial occupancy, in accordance with the federal Fit-up Standards. This fit-up may include alternations to the base building and its building systems. |
| Fit-up of existing space for reuse, Refit | Work required to alter space previously occupied by one organization to meet the requirements of a different organization. |
| Fit-Up Cost Limits | The funding limits for the fit-up of office accommodation. The limits are based on the average cost per useable square meter, for fit-up elements in specific urban centres across Canada, and are updated from time to time. The limits do not include soft costs or items funded by clients or under base building costs. |
| Fit-Up Items | Components that are installed removed or relocated to prepare the space for occupancy. They include partition walls, doors, frames, hardware, counters and cabinetry, modifications to base building systems, etc. as detailed in the Fit-up standards. Some base building components are included in consultant scope of work, such as the flooring and the ceiling finishes or telecommunications spaces and related environmental controls. |
| Focus Group | Group sessions held to establish qualitative requirements. They are most effective at the strategic planning level. They are used primarily to translate the Client Department's mission statement into organizational requirements and to assess planning alternatives |
| Full-time equivalent. | It measures of labour utilization in the federal government which approximates the actual number of persons "employed" by the government for carrying out the unit of work |
| Functional space equation | Identifies space requirements (in usable m ²) by group along with summary of the total space required for all groups. |
| Gross Space | The total floor space |
| 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 |
| 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 positive |



| | |
|------------------------------------|--|
| | <p>impact on a project).</p> <p>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.</p> |
| Interim Certificate of Completion | The certificates issued by Project manager following the Interim Inspection. Interim payment to the Contractor by PWGSC is based on the interim certificates. This payment takes place of a regular progress claim. |
| Interim Inspection | The inspection performed by the Project Acceptance Board after substantial completion of the project. A list of deficiencies is prepared, and subject to the Contractor's agreement to correct these, the Project Manager accepts the work and prepares the interim certificates |
| LEED® | Leadership in Energy & Environmental Design; an environmental rating system |
| 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 |
| 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 |
| National Project Management System | The system used by PWGSC for management of its projects. It replaces the earlier Project Delivery System (PDS). |
| PI Forms | Product Information forms; used in commissioning documentation |
| Probability | The likelihood that an event will occur (i.e. Low, Medium, High) |
| Project Acceptance Board | A team assembled by the Project Manager to perform interim and final inspections of the Client Department's improvements. |
| PV Forms | Performance Verification forms; used in commissioning documentation |
| Record drawings | Drawings used to record field deviations, dimensional data, and changes or deviations from the 'Construction Document-Issued for Construction'. They indicate the work as 'actually' installed. They are also called as-builts |
| Rentable Space | Usable space plus space occupied by columns, convectors, elevator lobbies and washrooms. It also includes some common base building areas such as telephone and janitorial closets. |
| Request for Proposal | The document used for requesting consultant services. It includes the Terms of Reference as well as other contracting documents |



| | |
|------------------------|---|
| Risk management | The art and science of identifying, analysing, and responding to risk factors throughout the life of a project and in the best interests of its objectives |
| Risk Event | A discrete occurrence that may affect 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) |
| Scheduler | Refers to the Time Scheduler; also referred to as Time Specialist |
| Space Equation | A spreadsheet that reflects the Client’s organizational structure, functional requirements, and proposed planning alternatives. It is used to determine the total usable area required to accommodate the following: Open and enclosed workstations/worksettings; Support space; Special purpose space circulation factor; Building loss factor; Total population; and Total space required; and Summary by group |
| Space Optimization | Maximizing the utilization of space. |
| Special Purpose Spaces | Non-standard spaces required to accommodate activities that are essential to departmental programs. This space is often not suitable for conversion to office accommodation because of its special requirements. Examples include: laboratories, health units or clinics, meeting or training complexes which serve outside groups, processing space, departmental libraries, gymnasiums, warehouses, file or storage areas not allowed by the PWGSC Fit-Up Standards, trade shops, mailrooms, computer training rooms, cash offices and similar spaces requiring special service and security features and hearing rooms. |
| Support Space | Space for typical office support functions not included in workstation or circulation space but necessary for office operation. The Fit-Up Standards identify specific sizes and ratios for kitchenette / recycling centre / lunchroom / resource areas, shared equipment spaces, meeting rooms, quiet / touch down rooms, printer stations, reception / mail drop / waiting / display areas and coat / storage closets. Limited allowances for “Other” support spaces including non-dedicated workstations, storage rooms, LAN rooms, breakout rooms, interview rooms, training rooms, reading rooms etc. are also identified in the Fit-Up Standards. |
| Terms of Reference | A document prepared by PWGSC when requesting Consultant services, which forms part of the RFP and is also included in the Consultant Agreement with PWGSC. |
| Universal Footprint | One standard module which can be multiplied to accommodate |



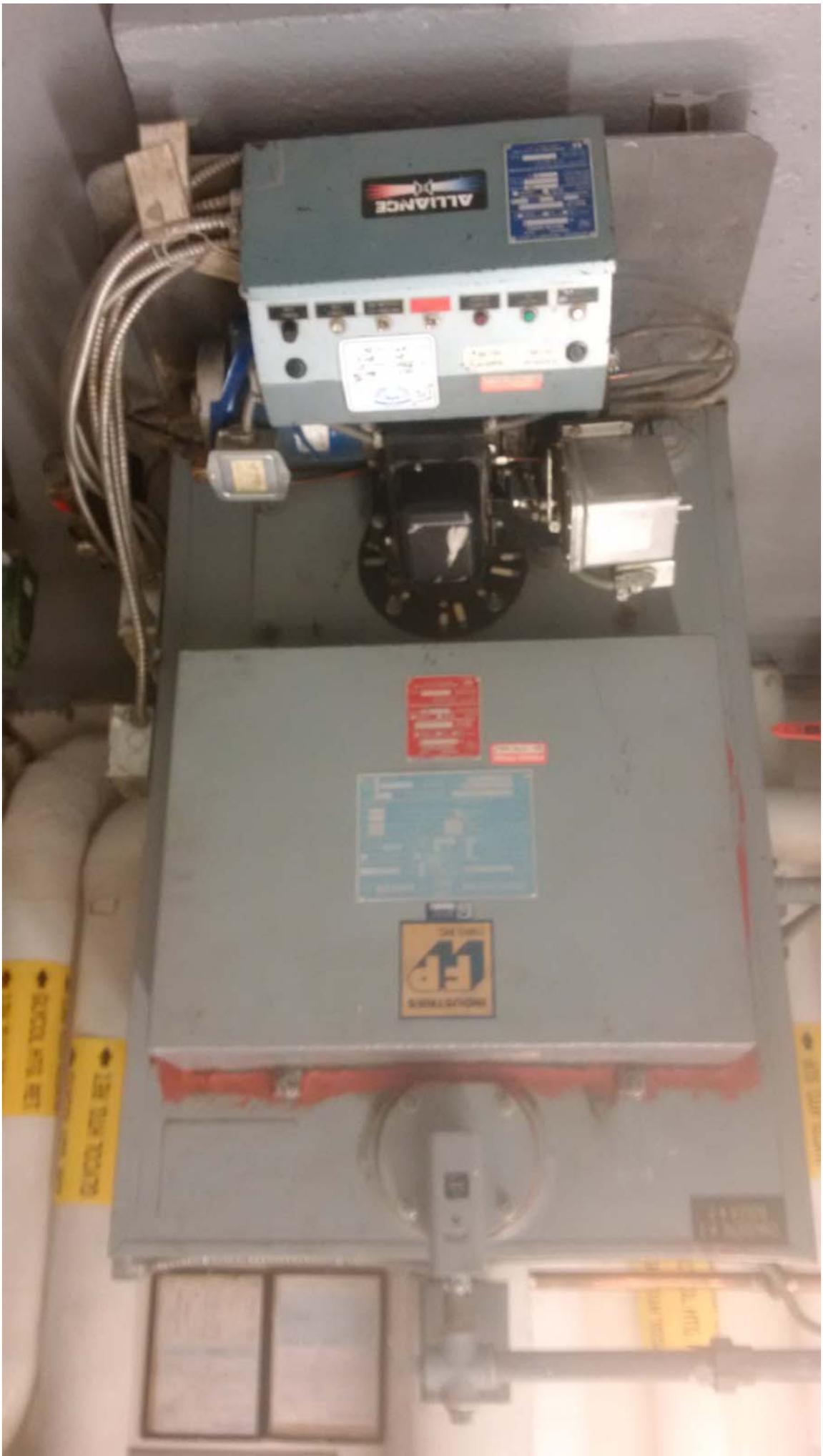
| | |
|-------------------------------|---|
| | all office functions including workstations, support space and special purpose space |
| Usable space, “Walk-on” Space | The space, in M ² , that is actually usable by the occupant. Measurement calculations do not include columns and convectors, building service areas and accessory areas. |
| Worksettings | Common work areas that support both collaboration and privacy. They include: teaming areas, non-dedicated workstations, privacy nooks, resource areas and multipurpose areas. |
| Workstations | An enclosed or open area dedicated for the use of individual employees. |

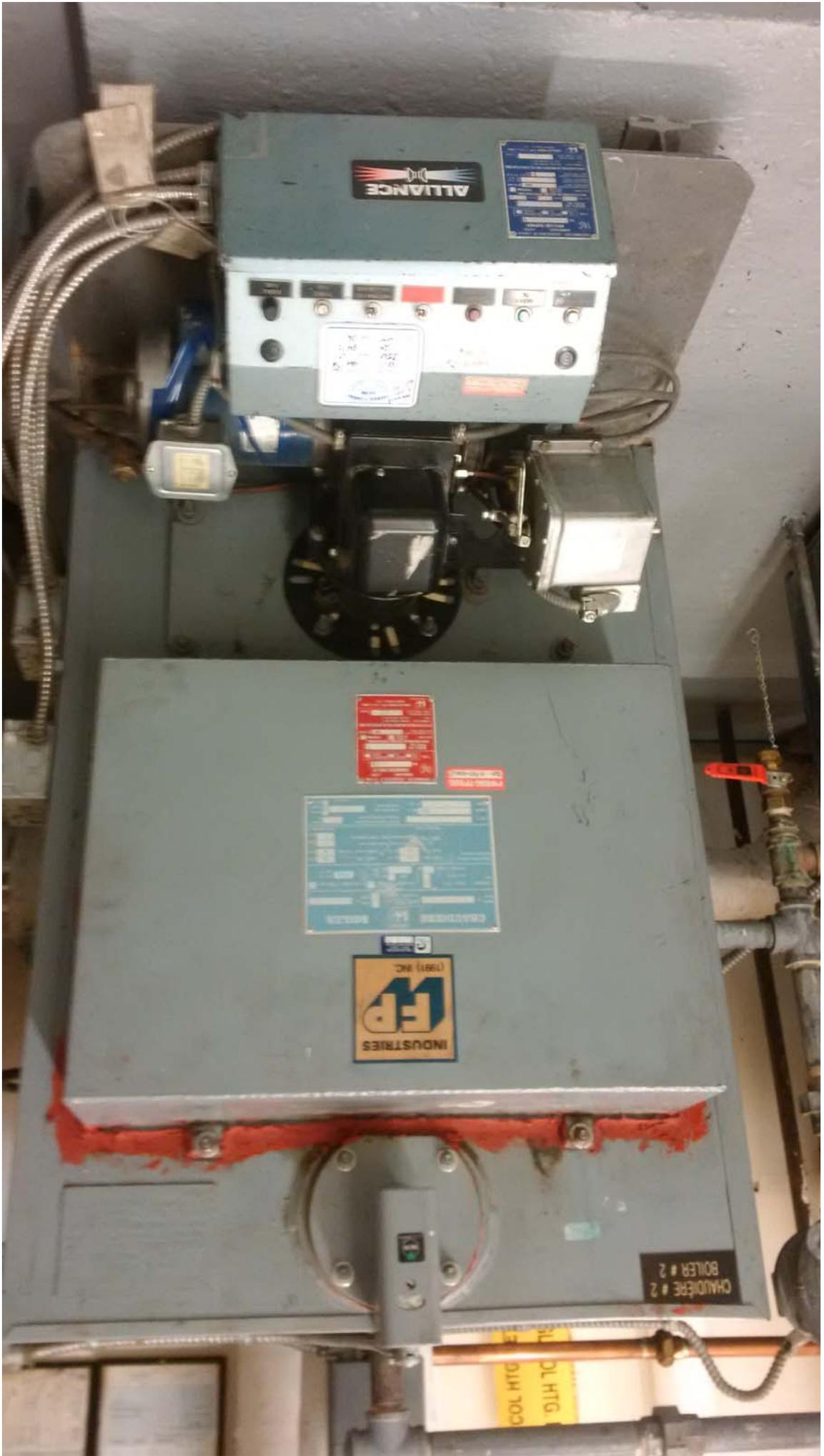
F.2 ACRONYMS

| ACRONYM | DESCRIPTION |
|---------|---|
| A&E | Architecture & Engineering |
| AHJ | Authorities Having Jurisdiction |
| AMP | Asset Management Report |
| ASAE | American Society of Agricultural Engineers |
| ASHRAE | American Society of Heating, Refrigeration and Air Conditioning Engineers |
| ASPE | American Society of Plumbing Engineers |
| BCC | Building components and connectivity |
| BCR | Building Condition Report |
| BMM | Building Maintenance Manual |
| CAD | Computer aided drawing |
| CCDC | Canadian Construction Document Committee |
| CBIP | Commercial building incentive program |
| COE | PWGSC Centre of Expertise |
| EMCS | Energy Monitoring & Control System |
| EPA | Effective Project Approval |
| FHBRO | Federal Heritage Building Restoration Office |
| FOBS | Federal Office Building Standards (PWGSC) |
| FTE | Full-time equivalent |
| HCP | Heritage Conservation Program |
| HRSDC | Human Resources and Skills Development Canada |
| IT/MM | Information Technology/Multi-media |
| MMS | Maintenance management system |
| NBC | National Building Code |
| NCA | National Capital Area; |
| NCR | National Capital Region; |
| NFBC | National Farm Building Code |
| NGMA | National Greenhouse Manufacturers' Association |
| NMS | The National Master Specification used by PWGSC |



| | |
|-------|---|
| NPMS | National Project Management System |
| OAA | Ontario Association of Architects |
| O&M | Operation and Maintenance |
| P&S | General Procedures and Standards |
| PA | Project administration |
| PI | Product Information |
| PD | Project Description |
| PM | Project Manager |
| PV | Performance verification |
| PWGSC | Public Works and Government Services Canada |
| RAIC | Royal Architectural Institute of Canada |
| RAS | Requirements and Standards |
| RS | Required Services |
| RSR | Resident site services |
| RPCD | Real Property Contracting Directorate |
| TOR | Terms of Reference |





ALLIANCE

EP INDUSTRIES
1991 INC.

CHAUDIERE # 2
BOILER # 2

EP INDUSTRIES
1991 INC.

CHAUDIERE # 2
BOILER # 2

COIL HTG
DL HTG

CERTIFIED BY
INDUSTRIES FR 1991 INC.

MAX. W.P. STEAM — PSI

WATER 30 PSI

HEATING SUR. 48 SQ. FT. — KW

MIN. RELIEF VALVE CAP. 384 LB/HR

MFR'S. SERIAL NO: 11014-21

B NH 300

C. R. N. NO: B2768.675980T1243

CHAUDIÈRE



Brompsville

BOILER

Modèle N°:

ES-0-12-4

Model

Vapeur / Steam

Eau-chaude / Hot water

Série N°:

14014-91

Compatible

Mazout / Oil N° 1

Fuel

Bois / Wood

Humidité / Moisture

%

Gaz

Gaz propane / Propane gas

Humidité / Moisture

%

Gaz

Btu / pi³

Btu / ft³

Btu / pi³

2500

Dégagements minimum

Minimum clearances

Other Sides

Deassis / Top

Avant / Front

Planchet / Floor

24 po/in

18 po/in

24 po/in

18 po/in

Non-combustible

C.R.N. #

ES2768.6

Capacité

2,000

Output

12

Lbs / po²

30

Psi

M Btu/h

3,75

US gal/h

Lbs./h

10221013

INDUSTRIES FP (1991) INC.
BROMPTONVILLE, QUE.
IB404052



SPECIFICATIONS AU MAZOUT/FUEL OIL SPECIFICATIONS
COMBUSTIBLE: MAZOUT GRADE NO. 2
FUEL: FUEL OIL GRADE NO. 2
DEBIT MAXIMUM
MAX. FIRING RATE
375 0442

CONSUMPTION MAX.
MAXIMUM INPUT
BTU/H
000

GAZ/GAS: NATUREL
 PROPANE
SPECIFICATIONS AU GAZ/GAS SPECIFICATIONS
MODELE NO.
MODEL NO.
ES-12-4

TYPE
 MAZOUT
 GAZ
 GAZ/MAZOUT
 GAS/OIL

NO. 213500



UNDERWRITERS' LABORATORIES OF CANADA
HOMOLOGUE LISTED
CHAUDIERE/BOILER

Maximum input
CV / HP

2,000



Boiler Model Number: 480

Burner Model Number: Riello F20

| Nozzle Size (GPH) | Angle | Type | Pump Pressure (PSI) |
|-------------------|-------|------|---------------------|
| 2.50 | 60 | B | 180 |

Oil: 2.50

Gas: Supply Pressure: in. w.c.

Manifold Pressure: in. w.c.

Electrical Rating: 120 VAC, 60 Hz, Less than 12 amp. 1 Phase

Minimum clearances to combustible construction:

Above: 24" Left Side: 6" Right Side: 6" Front: 48" Flue: 9"

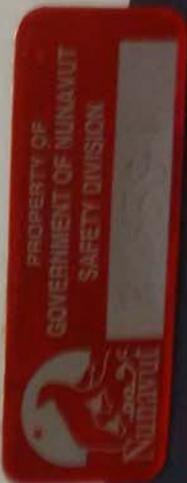
May be installed on combustible floor.

Heating Surface: 35.48 Sq. Ft.

CRN: H6617.512346790TY

SN: 800501165

50196





WEIL-McLAIN
MODEL 80 SERIES 1 BOILER

TO DETERMINE BOILER SIZE, COUNT THE NUMBER OF SECTIONS OR MEASURE THE JACKET LENGTH. CHECK BOX NEXT TO BOILER SIZE INSTALLED.

| MODEL NUMBER | NUMBER OF SECTIONS | JACKET LENGTH INCHES | MIN. RELIEF VALVE CAP. LBS/HR OR MBH | I = B = R INPUT | | NET I = B = R RATINGS | | |
|-------------------------------|--------------------|----------------------|--------------------------------------|-----------------|---------|-----------------------|-----------|-----------|
| | | | | LT. OIL GPH | GAS MBH | STEAM Sq. Ft. | STEAM MBH | WATER MBH |
| <input type="checkbox"/> 360 | 3 | 21 5/8 | 278 | 2.4 | 346 | 867 | 208 | 242 |
| <input type="checkbox"/> 480 | 4 | 28 5/8 | 396 | 3.4 | 491 | 1238 | 297 | 344 |
| <input type="checkbox"/> 580 | 5 | 35 5/8 | 515 | 4.45 | 639 | 1608 | 386 | 448 |
| <input type="checkbox"/> 680 | 6 | 42 5/8 | 634 | 5.5 | 787 | 1983 | 476 | 551 |
| <input type="checkbox"/> 780 | 7 | 49 5/8 | 753 | 6.5 | 935 | 2354 | 565 | 655 |
| <input type="checkbox"/> 880 | 8 | 56 5/8 | 872 | 7.5 | 1082 | 2725 | 654 | 758 |
| <input type="checkbox"/> 980 | 9 | 63 5/8 | 991 | 8.5 | 1230 | 3096 | 743 | 862 |
| <input type="checkbox"/> 1080 | 10 | 70 5/8 | 1110 | 9.6 | 1378 | 3471 | 833 | 965 |
| <input type="checkbox"/> 1180 | 11 | 77 5/8 | 1229 | 10.6 | 1525 | 3842 | 922 | 1069 |
| <input type="checkbox"/> 1280 | 12 | 84 5/8 | 1348 | 11.6 | 1674 | 4242 | 1016 | 1172 |

CERTIFIED BY
WEIL-McLAIN
MAWP, WATER 50 PSI
MAWP, STEAM 15 PSI
MAX. WATER TEMP 250 F



I = B = R Ratings Apply to Burner Models with "W" Prefix or Suffix

500281133

20-270001



Boiler Model Number: 480
Burner Model Number: Riello F20

Nozzle Size (GPH): 2.50
Angle: 60
Type: B
Pump Pressure (PSI): 120

Gas Supply Pressure: In. w.c.
Manifold Pressure: In. w.c.

Electrical Rating: 120 VAC, 60 Hz, Less than 12 amp, 1 Phase

Minimum clearances to combustible construction:
Above 24" Left Side 6" Right Side 6" Front 48" Flue 9"
May be installed on combustible floor.

Heating surface: 35.48 Sq. Ft.

CRN: H6617-512346790TY
SN: 800501165
5015K













1202

