Royal Canadian Mounted Police | Gendarmerie royale du Canada

RETURN BIDS TO:

RETOURNER LES SOUMISSIONS A :

RCMP-GRC
Bid Receiving/Réception des sousmissions
Attention: Karen Moore
Mail StopéArrêt postal 15
73 chemin Leikin Drive,
Ottawa, ON K1A 0R2

All persons delivering mail, parcels and bids to the Mail Parcel and Screening Facility will be asked to provide government photo identification and a contact number as part of an enhanced security protocol.

Dans le cadre d'un protocole de sécurité amélioré, toute personne qui livre le courrier, les colis et les soumissions à l'installation d'inspection du courrier et des colis devra désormais présenter une carte d'identité avec photo émise par le gouvernement et un numéro de téléphone.

REQUEST FOR PROPOSAL

DEMANDE DE PROPOSITION

Proposal to: Royal Canadian Mounted Police

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 : Gendarmerie royale du 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 appendices ci-jointes, les biens, services et construction énumérés ici sur toute feuille ci-annexée, au(x) prix indiqué(s).

Comments: - Commentaries :

THIS DOCUMENT CONTAINS A SECURITY REQUIREMENT

LE PRÉSENT DOCUMENT COMPORTE UNE EXIGENCE EN MATIÈRE DE SÉCURITÉ

Title – Sujet	**Date**
Architectural and Engineering Design Services – Pangnirtung Detachment	November 9, 2017
Solicitation No. – Nº de l'invitation	
201803427	
Client Reference No. - No. De Référence du Client	
201803427	
Solicitation Closes – L'invitation prend fin	
At /à : 2 :00pm	EST (Eastern Standard Time) HNE (Heure normale de l'Est)
On / le : December 19, 2017	

F.O.B. – F.A.B	**GST – TPS**	**Duty – Droits**
Destination	See herein — Voir aux présentes	See herein — Voir aux présentes

Destination of Goods and Services – Destinations des biens et services See herein — Voir aux présentes
Instructions See herein — Voir aux présentes
Address Inquiries to – **Adresser toute demande de renseignements à** Karen Moore – Manager Construction & Real Property

Telephone No. – No. de téléphone	**Facsimile No. – No. de télécopieur**
613-843-4886	

Delivery Required – **Livraison exigée**	**Delivery Offered** – **Livraison proposée**
See herein — Voir aux présentes	
Vendor/Firm Name, Address and Representative – Raison sociale, adresse et représentant du fournisseur/de l'entrepreneur:	
Telephone No. – No. de téléphone	**Facsimile No. – No. 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**

Canada

REQUEST FOR PROPOSAL (RFP)

TABLE OF CONTENTS

The following is intended to clarify the general structure of the whole document.

PART 1 - SUPPLEMENTARY INSTRUCTIONS TO PROPONENTS (SI)

SI1 Introduction

1. The Royal Canadian Mounted Police (RCMP) intends to retain a Consultant to provide the professional services for the project as set out in this Request for Proposal (RFP). In summary, the RCMP require a new detachment facility to meet its operational requirements for the delivery of policing services in Pangnirtung, Nunavut and the surrounding areas. This requirement is for architectural and engineering services for the construction of a new detachment building.

SI2 Proposal Documents

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

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

   Revision to Departmental Name: As this solicitation is issued by Royal Canadian Mounted Police (RCMP), any reference to Public Works and Government Services Canada or PWGSC or its Minister contained in any term, condition or clause of this solicitation, including any individual SACC clauses incorporated by reference, will be interpreted as reference to RCMP or its Minister.

2. The following are the proposal documents:

   (a) Supplementary Instructions to Proponents (SI); R1410T (2017-08-17), General instructions (GI) – Architectural and/or Engineering services – Request for Proposal; and amended as follows:

   i. Subsection GI3 Overview of selection procedure:
   Delete: in its entirety
   Insert: GI3 intentionally left blank.

ii. Subsection GI13 Insurance Requirements:
Delete: in its entirety
Insert:
GI13 Insurance Requirements

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

No insurance requirement stipulated in the RFP documents should be construed as limiting any insurance required by federal, provincial or municipal law. Neither should it limit any coverage which the successful Proponent and other members of the consultant team may consider to be necessary for their own protection or to fulfill their obligations.

By virtue of submission of a proposal, the Proponent certifies that the Proponent and the other members of the consultant team as may be applicable are capable of obtaining, and will obtain and maintain liability insurance in accordance with the requirements set out in the proposal documents.

iii. Subsection GI23 Performance Evaluation of R1410T (2017-08-17) is amended as follows:
Delete: in its entirety
Insert: GI23 intentionally left blank.

(b) the general terms, conditions and clauses, as amended, identified in the Agreement clause;
(c) Project Brief (Appendix A);
(d) the Price Proposal Form (Appendix B);
(e) the Security Requirements Check List (SRCL) (Appendix C);
(f) the Consultant Team Identification Form (Appendix D), the Declaration/Certifications Form (Appendix E), the Submission Requirements, Evaluation Procedures and Basis of Selection (Appendix F), and the Evaluation Criteria (Appendix G); and
(g) Any amendment to the solicitation document issued prior to the date set for receipt of proposals.

3. Submission of a proposal constitutes acknowledgment that the Proponent has read and agrees to be bound by these documents.

SI3 Submission of Bids & Questions or Requests for Clarification

1. Submission of Bids:

(a) Bids must be submitted only to the RCMP Bid Receiving by the date, time and place indicated on page 1 of the bid solicitation.

(b) Due to the nature of the bid solicitation, bids transmitted by facsimile to the RCMP will not be accepted.

2. Questions or Request for Clarifications:

(a) Questions or requests for clarification during the solicitation period must be submitted via email to the Contracting Authority identified below, as early as possible. Enquiries should be received no later than 5 working days prior to the closing date identified on the front page of the Request for Proposal. Enquiries received after that date may not be answered prior to the closing date of the solicitation.

Contracting Authority for the solicitation:
Karen Moore, Manager Construction & Real Property
Procurement and Contracting Branch, RCMP
Email: Karen.moore1@rcmp-grc.gc.ca

SI4 PROPOSAL VALIDITY PERIOD

1. Proposals will remain open for acceptance for a period of not less than 60 calendar days from the closing date of the solicitation. [last part of this sentence from 2003 deleted – do in FR]
2. Canada reserves the right to seek an extension to the proposal validity period from all responsive Proponents in writing, [deleted within a minimum of 3 days – do in FR] before the end of the proposal validity period.
3. If the extension is accepted by all responsive Proponents, Canada will continue with the evaluation of the proposals.
4. If the extension is not accepted by all responsive Proponents, Canada will, at its sole discretion, either:
   (a) Continue with the evaluation of the proposals of those who have accepted the extension; or
   (b) cancel the solicitation.
5. The provisions expressed herein do not in any manner limit Canada's rights in law or under GI11 of R1410T.

SI5 Canada's Trade Agreements

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

SI6 Certifications

1. **Integrity Provisions – Declaration of Convicted Offences**
   In accordance with the Ineligibility and Suspension Policy (http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html), the Proponent must **provide with its bid**, **as applicable**, to be given further consideration in the procurement process,

the required documentation as per R1410T (2017-08-17), General instructions 1 (GI1), Integrity Provisions – Proposal, **section 3b**.

2. Federal Contractors Program for Employment Equity - Proposal Certification

By submitting a proposal, the Proponent certifies that the Proponent, and any of the Proponent's members if the Proponent is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "FCP Limited Eligibility to Bid" list (http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml) available from Employment and Social Development Canada (ESDC) - Labour's website.

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

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

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

SI7 Security Requirement

1. Before the commencement of Work, the following conditions must be met:

    a. The Proponent's proposed individuals requiring access to classified or protected information, assets or sensitive work site(s) must meet the security requirement as indicated in the Terms, Conditions and Clauses of the Agreement;

    b. The Proponent must provide personal data including the full name, date of birth, present address and other data as requested by the RCMP, for each person working on this project, if requested. This information will be used for security clearance purposes (ie. to confirm if persons have a current/valid ***RCMP Reliability Status*** clearance). This information must be provided within five (5) working days of the request.

    c. The Proponent's proposed location of service performance or document safeguarding must meet the security requirement as indicated in

Supplementary Conditions SC1 and Appendix C – Security Requirements Check List (SRCL).

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

e. Secure area / lock up is required in quiet hours. Access is restricted to those with need-to-know, ie: those working under the contract only.

f. Any electronic media (USB drives, hard drives, CDs, etc) that store or process RCMP information must either be retained by the RCMP or wiped using RCMP approved procedures.

2. Proponents are reminded to obtain the required security clearance promptly to avoid any delays with the commencement of Work.

SI8 - Websites

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

Employment Equity Act
http://laws-lois.justice.gc.ca/eng/acts/E-5.401/index.html

Federal Contractors Program (FCP)
https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html

Certificate of Commitment to Implement Employment Equity form LAB 1168
http://www.servicecanada.gc.ca/eforms/forms/esdc-lab1168(2015-08-011)e.pdf

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

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

Buy and Sell
https://buyandsell.gc.ca/

Supplier Registration Information
https://srisupplier.contractscanada.gc.ca

Canadian economic sanctions
http://www.international.gc.ca/sanctions/index.aspx?lang=eng
National Joint Council (NJC) Travel Directive
http://www.njc-cnm.gc.ca/directive/travel-voyage/index-eng.php

PART 2 – AGREEMENT (Contract) - TERMS, CONDITIONS AND CLAUSES

1. Standard Clauses and Conditions and Agreement Particulars

1.1 The Consultant understands and agrees that upon acceptance of the offer by Canada, a binding Agreement shall be formed between Canada and the Consultant and the documents forming the Agreement shall be the following:

(a) The Front Page and this Agreement clause;
(b) the General Terms, Conditions and Clauses, as amended, identified as:
R1210D (2017-08-17), General Condition (GC) 1 - General Provisions – Architectural and/or Engineering Services
R1215D (2016-01-28), General Condition (GC) 2 - Administration of the Contract – Architectural and/or Engineering Services
R1220D (2015-02-25), General Condition (GC) 3 - Consultant Services
R1225D (2015-04-01), General Condition (GC) 4 - Intellectual Property
R1230D (2016-01-28), General Condition (GC) 5 - Terms of Payment – Architectural and/or Engineering Services
R1235D (2011-05-16), General Condition (GC) 6 - Changes
R1240D (2011-05-16), General Condition (GC) 7 - Taking the Services Out of the Consultant's Hands, Suspension or Termination
R1245D (2016-01-28), General Condition (GC) 8 - Dispute Resolution – Architectural and/or Engineering Services
R1250D (2015-07-03) General Condition (GC) 9 - Indemnification and Insurance

Section GC1.1 of R1210D, Definitions, incorporated by reference above, is amended as follows:

ADD:

"Architectural and Engineering Services":
means services to provide a range of investigation and recommendation reports, planning, design, preparation, or supervision of the construction, repair, renovation or restoration of a work and includes contract administration services, for real property projects.

"Construction Services":
means construction, repair, renovation or restoration of any work except a vessel and includes; the supply and erection of a prefabricated structure; dredging; demolition; environmental services related to a real property; or, the hire of equipment to be used in or incidentally to the execution of any construction services referred to above.

"Facility Maintenance Services":
means services related to activities normally associated with the maintenance of a facility and keeping spaces, structures and infrastructure in proper operating condition in a routine, scheduled, or anticipated fashion to prevent failure and degradation including inspection, testing, servicing, classification as to serviceability, repairs, rebuilding and reclamation, as well as cleaning, waste removal, snow removal, lawn care, replacement of flooring, lighting or plumbing fixtures, painting and other minor works.

Subsection GC1.12 of R1210D (2017-08-17), incorporated by reference above, is amended as follows:
Delete: in its entirety
Insert: GC1.12 Intentionally left blank.

(c) Supplementary Conditions (SC)
i. SC1 Security Requirement
ii. SC2 Federal Contractors Program for Employee Equity – Default by Contractor

(d) Agreement Particulars
i. Project Brief (Appendix A);
ii. the Price Proposal Form (Appendix B);
iii. the Security Requirements Check List (SRCL) (Appendix C);
iv. any amendment to the solicitation document incorporated in the Agreement before the date of the Agreement;
v. the Consultant Team Identification Form (Appendix D); and
vi. the Declaration/Certifications Form (Appendix E).

(e) The proposal.

1.2 The documents identified above by title, number and date are hereby incorporated by reference into and form part of this Agreement, as though expressly set out herein, subject to any other express terms and conditions herein contained.

The documents identified above by title, number and date are set out in the Standard Acquisition Clauses and Conditions (SACC) Manual, issued by Public Works and Government Services Canada (PWGSC). The SACC Manual is available on the PWGSC Web site: https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual

Revision to Departmental Name: As this contract is issued by Royal Canadian Mounted Police (RCMP), any reference to Public Works and Government Services Canada or PWGSC or its Minister contained in any term, condition or clause of this contract, including any individual SACC clauses incorporated by reference, will be interpreted as reference to RCMP or its Minister.

1.3 Priority of Documents: If there is a discrepancy between the wording of any documents that appear on the following list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.

(a) Any amendment or variation in the Agreement that is made in accordance with the terms and conditions of the Agreement;
(b) any amendment to the solicitation document incorporated in the Agreement before the date of the Agreement;
(c) this Agreement clause;
(d) Supplementary Conditions;
(e) General Terms, Conditions and Clauses;
(f) Agreement Particulars;
(g) Project Brief (Appendix A);
(h) Price Proposal Form (Appendix B);
(i) the Security Requirement Check List (SRCL) (Appendix C);
(j) the Consultant Team Identification Form (Appendix D);
(k) the Declaration/Certifications Form (Appendix E); and
(l) the proposal.

2. Term of Contract

2.1 Period of the Contract

The period of the contract is 5 years and 4 months from date of contract award.

2.2 Option to Extend the Contract

The Consultant grants to Canada the irrevocable option to extend the term of the contract under the same conditions and by multiple option periods to align with the completion of the separate but corresponding construction contract including warranty periods. The Consultant agrees that, during the extended period of the contract, it will be paid in accordance with the applicable provisions as set out in the Price Proposal.

Canada may exercise the options at any time by sending a written notice to the Consultant at least 5 (five) calendar days before the expiry date of the contract. The options may only be exercised by the Contracting Authority, and will be evidenced for administrative purposes only, through a contract amendment.

3. Authorities

3.1 Contracting Authority

The Contracting Authority for the contract is: [To be confirmed at contract award]

Name: _____
Title:

Organization: RCMP – Procurement and Contracting Branch
Address: 73 Leikin Dr.
Ottawa, ON
K1A 0R2

Telephone: _____
E-mail address: _____

The Contracting Authority is responsible for the management of the contract and any changes to the contract must be authorized in writing by the Contracting Authority. The Contractor must not perform work in excess of or outside the scope of the contract based on verbal or written requests or instructions from anybody other than the Contracting Authority.

3.2 RCMP Departmental Representative [To be confirmed at contract award]

The RCMP Departmental Representative for the contract is:

Name: _____
Title: _____
Organization: _____
Address: _____

Telephone : ___ ___ _____
Facsimile: ___ ___ _____
E-mail address: _____

The RCMP Departmental Representative is the representative of the department or agency for whom the Work is being carried out under the contract and is responsible for all matters concerning the technical content of the Work under the Contract. Technical matters may be discussed with the RCMP Departmental Representative; however, the RCMP Departmental Representative has no authority to authorize changes to the contract. Changes to the contract can only be made through a contract amendment issued by the Contracting Authority.

3.3 Proponent's Representative [To be confirmed at contract award]

Name: _____
Title: _____
Address: _____

Telephone : ___ ___ _____
Facsimile: ___ ___ _____
E-mail address: _____

4. Proactive Disclosure of Contracts with Former Public Servants *(To be included in resulting contract if the Proponent identified as a former public servant in their bid submission)*

By providing information on its status, with respect to being a former public servant in receipt of a Public Service Superannuation Act (PSSA) pension, the Contractor has agreed that this information will be reported on departmental websites as part of the published proactive disclosure reports, in accordance with Contracting Policy Notice: 2012-2 of the Treasury Board Secretariat of Canada.

5. Supplementary Conditions (SC)

SC1 Security Requirement

1. The following security requirements apply and form part of the Contract. Before the commencement of Work the following conditions must be met:

1.1 The Consultant's personnel are required to be security cleared at the level of ***RCMP Reliability Status Security Clearance*** as verified by the Personnel Security Unit (PSU) of the Royal Canadian Mounted Police (RCMP).

1.2 The Consultant SHALL NOT remove or make copies of any PROTECTED, DESIGNATED or CLASSIFIED information or assets from the identified work site(s), and the Consultant must ensure that its personnel are made aware of and comply with this restriction.

1.3 Secure area / lock up is required in quiet hours. Access is restricted to those with need-to-know, ie: those assigned to the project only.

1.4 Any electronic media (USB drives, hard drives, CDs, etc) that store or process RCMP information must either be retained by the RCMP or wiped using RCMP approved procedures.

1.5 The Consultant must comply with the provisions of the: Security Requirements Check List (SRCL) attached at Appendix C.

1.6 The Consultant's location of service performance or document safeguarding must meet the security requirement as indicated in Appendix C – Security Requirements Check List (SRCL).

2. Consultant`s Site(s) or Premises Requiring Safeguarding Measures

2.1 The Consultant must diligently maintain up-to-date, the information related to the Consultant`s and individual(s) site(s) or premises, where safeguarding measures are required in the performance of the Work, for the following address(es) (To be entered upon contract award):

Street Number / Street Name, Unit / Suite / Apartment Number
City, Province, Territory / State
Postal Code / Zip Code
Country

2.2 The Company Security Officer (CSO) must ensure through the RCMP Departmental Security Branch (DSB) or the RCMP Regional Departmental Security Sections (RDSS) that the Consultant and individual(s) hold a valid security clearance at the required level.

SC2 Federal Contractors Program for Employment Equity – Default by the Consultant

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

Appendix A – Project Brief

New Pangnirtung Detachment Project

A&E Services

Document History

Version	Date	Author	Summary of Changes
1.0	Sept 6, 2017	Peter J.	Initial Draft
2.0	October 20, 2017	Peter J.	Updates and addition of Modular
3.0	Nov 2, 2017	Peter J.	Final Version

Project Brief

Table of Contents:

PROJECT DESCRIPTION

PROJECT DESCRIPTION

PD 1 PROJECT INFORMATION

PD 1.1 SERVICES

1.1.1 Royal Canadian Mounted Police (RCMP) requires the services of an architectural firm (the "Consultant") together with a multi-disciplinary team of sub-consultants for the provision of service required for this project.

PD 1.2 THE GENERAL REQUIREMENTS, SPECIFICATIONS, PROCEDURES & STANDARDS DOCUMENT (GRSP&S)

1.2.1 The GRSP&S document (Attachment 1 to this appendix) forms part of the Project Brief.

1.2.2 The Project Brief describes project-specific requirements, services and deliverables while the GRSP&S document outlines general requirements, specifications, minimum standards, and procedures common to all projects.

1.2.3 In the case of a conflict between the two documents, the requirements of the Project Brief override the GRSP&S document.

PD 1.3 GENERAL

1.3.1 Project Title: New Pangnirtung Detachment

1.3.2 Location of the Project: Pangnirtung, Nunavut

PD 2 PROJECT INTRODUCTION AND BACKGROUND

PD 2.1 OVERVIEW

2.1.1 The services of a Consultant, are required to undertake the design and construction administration / review services needed to construct a new detachment in Pangnirtung, Nunavut.

2.1.2 The project consists of design and construction of a new police detachment facility to meet the RCMP's program requirements on a building site secured and already owned by the RCMP in Pangnirtung, Nunavut. The Consultant team must complete a review of modular vs on site construction, assess the site for placement of the new detachment, relocation of existing garage and demolition and site cleanup of the existing detachment. This detachment will be comprised of approximately 588 M2 of usable space.

2.1.3 The Consultant will provide a full Consultant Team including the required expertise in civil, structural, mechanical, electrical, landscape architecture, project costing, scheduling and commissioning specialist.

PD 2.2 USER DEPARTMENT

2.2.1 The User Department, referred to throughout the Project Brief, is:

.1 The Royal Canadian Mounted Police (RCMP)

2.2.2 RCMP Mission

The RCMP is Canada's national police service. Proud of our traditions and confident in meeting future challenges, we commit to preserve the peace, uphold the law and provide quality service in partnership with our communities.

PD 2.3 SITE CONDITIONS

2.3.1 The main characteristics of the site:

.1 Facility will be constructed on exiting RCMP land which comprises of a detachment, garage, multiple housing units and storage buildings in Pangnirtung, Nunavut.

.2 The site is currently occupied and the detachment is operational and must remain operational and all building accessible.

.3 The site is in a northern climate consisting of permafrost. Special design consideration must be given to ensure the design response to a building built on permafrost.

.4 The presence of petroleum in the soil has been identified; soil remediation design and construction administration forms part of the Consultant's scope of work under this contract.

PD 2.4 CONSTRAINTS AND CHALLENGES

2.4.1 The Consultant must become familiar with the project site and obtain local information as required.

2.4.2 All site visits must be arranged through the Departmental Representative.

2.4.3 The Consultant must obtain security clearances for all his/her firm's personnel as well as any sub-consultants to visit the project site for reasons, such as, site reviews, attendance for site design meetings, etc. Security clearance checks may include credit checks.

2.4.4 The construction on the project site will be performed on a site with a fully operational detachment and occupied housing units that must remain operation throughout the project. Project phasing must be planned to ensure that disruption to other facilities on the site are kept to a minimum.

2.4.5 This Detachment will be constructed for use in a community that does not offer the services that are available in more developed locations. An absolute consideration must be ease of maintenance and easy access to parts for repair of equipment and systems installed in the facilities. Equally important is the reduction of ongoing Operations and Maintenance costs. The Consultants must develop and deliver an operational guide to provide direction and illustrations of how to maintain the building for staff to use to conduct regular maintenance activities.

2.4.6 These facilities will need to be designed and developed to enable transport via sea lift to the community noted. The individual modules must be easily connectable to one another to create a single large operating detachment and designed to ensure that the building envelope at the connection points is as secure as the remainder of the structure.

2.4.7 Incorporate sustainable design principles to achieve compliance with 2015 National Energy Code of Canada of Buildings (NECB). Design shall utilize the Energy performance compliance path as defined in the 2015 NECB and document compliance.

2.4.8 Delivering the construction portion of the project to meet all requirements within a $6,5M (GST excluded) construction estimate. Budget control and management is of significant importance in the completion of this project. Utilization of innovative design to reduce the overall cost of the project is critical and design options provided.

2.4.9 Aggressive project schedule for design (8 months)

2.4.10 Pangnirtung is a northern remote community. Construction materials, equipment and access are limited to seasonal sea lifts. The community is

assessable by air. Defining long lead times for materials, timely reviews of shop drawings and timely responses to contractor questions must be priorities to ensue no schedule delays occur.

PD 3 PROJECT OBJECTIVES

PD 3.1 OBJECTIVE ONE: FUNCTIONAL PERFORMANCE

3.1.1 Provide a modular design to deliver a facility in the community of Pangnirtung that responds to the operational and functional requirements to the RCMP.

Estimated Space Summary:

Pangnirtung Detachment	
Usage	SQ Meters (approx. +/-)
Public Area (Reception, Vestibules, etc)	24.0
Office Area	37.9
General Support Area	131.5
Operational Support Area	41.7
Secure Area	157.1
Total Usable	392
24% Circulation Space to all spaces except	94
20% Structure & Walls	102
Total Gross Space	588

3.1.2 Achieve:

.1 A design that that provides functional, responsive and efficient workspace in keeping with the functional programs, the RCMP and Treasury Board standards,

.2 Healthy and safe working environments that fully support optimum work productivity,

.3 Effective and continuous physical security for the occupants in the conduct of their daily business,

.4 Integration of RCMP systems for Security and Information Services with project requirements

.5 Easy to use and adaptable systems and technologies to support requirements with capacity for growth and change.

.6 Effective and efficient office furniture plan, utilizing approved suppliers from the Government of Canada's National Master Standing Offer Agreement, fully coordinated with the Mechanical and Electrical disciplines.

.7 A facility that is designed in a manner that will allow for simple future expansion to the administration and detention portions of the facility.

PD 3.2 OBJECTIVE TWO: DESIGN QUALITY AND CHARACTER

3.2.1 Provide modular design that will effectively and appropriately serve the RCMP and its operations for an expected life span of 30 years before major refit.

3.2.2 Achieve:

.1 Design excellence, use of quality materials and precise execution respecting the geography, geology and climate where these facilities will be located,

.2 A design that will reflect the importance and the nature of the functions it serves and fits within the surrounding environment.

.3 A modular design that will reflect the importance and the nature of the functions it serves and fits within the surrounding environment.

.4 Quality and construction methods shall be robust and able to withstand transportation and delivery of the modules to the location where it will operate and should reflect the expectations defined in CSA Standard S478-95, “Guidelines on Durability in Buildings (Design).” The final product shall be designed to have a medium life of 25 to 49 years per the standard.

.5 A building that reflects elements of the community and landscape of Pangnirtung, Nunavut.

.6 A fully integrated design.

PD 3.3 Objective Three: Building Performance

3.3.1 Provide a building and building systems that will enable long-term efficient and cost effective life cycle performance.

3.3.2 Achieve:

.1 A building that embodies contemporary sustainable design and application principles and is implemented in an environmentally responsible manner,

.2 Follow the principles of LEED,

.3 Compliance with the NEBC 2015. Design shall utilize the Energy performance compliance path as defined in the 2015 NECB and document compliance.

.4 Healthy and safe environments that meet or exceed all applicable codes for construction, fire, health, and life safety.

.5 A building that fully integrates all components and systems (architectural, structural, mechanical, electrical, range equipment, IT, multimedia, security, and furniture),

.6 Building fabric and systems that are of a high quality; designed in response to sound building science, life cycle cost effectiveness, general ease of maintenance and constructed with the best workmanship possible,

.7 Systems that can be accessed and easily repaired and / or replaced in the building life cycle as required.

PD 3.4 Objective Four: Project Delivery

3.4.1 Deliver the project utilizing best practices in support of the RCMP’s needs, respecting the approved scope, quality, financial budget and schedule.

3.4.2 Achieve:

.1 A cohesive functional partnership and open communication between all members of the project delivery team and stakeholders throughout all phases of project delivery,

.2 An integrated and focused Consultant Team with an in-depth understanding and collective ‘buy-in’ of the project requirements, scope, budget and scheduling objectives, working constructively to ensure a collaborative and cooperative team approach with knowledgeable and timely input and contribution by all project team members, including representatives from the RCMP.

.3 Rigorous quality assurance reviews during the design and construction phases, conducted as an integral element of the design process for all major disciplines,

.4 A rigorous quality management plan in order to respond and correct, in a timely and effective manner, all issues as they occur,

.5 Appointment of a competent and qualified Project Architect to provide enduring vision and guidance for the entire project duration, to be responsible for the production and delivery of all documents, review of construction for conformity to intent, and to ensure that there is a continuity of key personnel working as an integrated dedicated team for the full duration of the project,

.6 Professional conduct in all phases of the project, employing best practices for budget, schedule, quality, and scope management,

.7 A continuous risk identification and management program employing effective methodologies to avoid unexpected project impacts, and to ensure construction claims avoidance,

.8 Continuous and comprehensive documentation of the project at all stages of the project implementation for Records of Decisions, project follow up and development of lessons learned.

PD 4 SCOPE OF WORK

PD 4.1 OVERVIEW- ALL DISCIPLINES

.1 Provide a comprehensive professional service for all phases of project development including, project analysis and schematic design, design development, tender document production, assistance during tendering, construction administration, post construction services, commissioning and warranty services as described in more detail in the following sections.

.2 A study of modular vs on site construction must be conducted to evaluate project delivery approach. Consultant services must be provided to cover either delivery approach.

.3 Ensure integration of RCMP user systems and requirements during all phases of the project.

.4 Maintain consistency and continuity of the multidisciplinary team throughout all project phases.

PD 4.2 PHASE 1- PROJECT ANALYSIS AND SCHEMATIC DESIGN

.1 Review the existing site, the current operational requirements, summarize the project mandate, and develop a functional program, project budget, key parameters, key constraints and project objectives in a Project Design Report. Phase 1 covers the services described in RS 1 and RS2.

.2 Review and summarize functional requirements, including occupancy and roles, facility requirements and room data sheets.

.3 Analysis design and delivery approach of modular vs on site construction to consider cost, logistics, schedule and other any other benefits or disadvantages of either options.

.4 Review and summarize options and approach for design, integration and procurement process for acquisition and installation of all RCMP BCC elements.

.5 Review the site, seeking options for placement of the new detachment and provide for consideration to the RCMP along with a recommended option to locate the detachment, relocation of the garage, existing detachment demolition on available land space.

.6 Provide 3 conceptual designs for consideration by the RCMP for the provision of a new facility, ensuring optimal use of the site, space utilization efficiency and integration of security requirements, and compliance with Authorities having jurisdiction.

.7 Summarize options in a Project Design Brief complete with functional program, key features, opportunities, constraints, risks and estimated construction budgets.

.8 Present schematic options and Design Brief for review and approval by RCMP.

.9 Develop final schematic design, based on RCMP selected concept and comments and submit for sign off.

PD 4.3 PHASE 2 - DESIGN DEVELOPMENT

.1 Develop the preferred design based on the approved schematic from Phase I.

.2 Update Project brief drawings, outline specifications, and supporting information sufficient to convey full conceptual understanding of all building elements and

systems for all disciplines. Summarize options considered for each major building system along with evaluation to support recommended concepts.

.3 Update project budget, schedule, and risk plan based on outcome of design development phase.

.4 Submit updated project brief and supporting documentation for RCMP review and approval.

.5 Finalize Design Development phase based on RCMP approval and comments and submit for sign off.

PD 4.4 PHASE 3 - CONSTRUCTION DOCUMENTS

.1 Development of construction documents to be conducted at 33%, 66%, 99% and tender ready stages with full updates to the Project Brief, drawing and specification submissions, presentations, cost estimates, schedules and risk plan at each stage.

.2 Prepare and provide documentation for RCMP reviews and approvals at 33%, 66%, 99% and tender ready stages of construction document production.

.3 After each stage of RCMP review, confirm how comments have been or will be addressed in the next stage, or provide alternate solutions to address expressed concerns for RCMP signoff.

.4 Proceeding to tender with planned addenda or incomplete documentation will not be acceptable.

PD 4.5 PHASE 4 –TENDER CALL AND BID EVALUATION

.1 Coordinate with the Departmental Representative's Construction Manager in the development of multiple tender packages.

.2 Attend on-site job showing for construction contract bidders.

.3 Record all questions received during job showing.

.4 Review all queries received during tender period and provide responses and or addenda as may be required for issue by Construction Manager.

.5 Assists the Department Reprehensive and the Construction Manager in evaluating the technical aspects of bids on an as required basis, including evaluation of tender price if it varies from pre-tender estimate by more than 10%.

PD 4.6 PHASE 5 – CONSTRUCTION CONTRACT ADMINISTRATION

.1 Periodic construction reviews for conformance to contract documents and contract administration, including provision of bi-weekly site review reports, evaluation and certification of construction progress claims.

.2 Review and responds to Requests for Information (RFI's), prepare draft Site Instructions, draft Change Directives, draft Contemplated Change Orders, and draft Change orders for review and issue by the Contract Authority.

.3 Review and evaluation of Contractors change proposals and claims.

.4 Review and evaluation of changes to construction schedule.

.5 Updates to and monitoring of Project Risk Plan.

.6 Attendance at all regularly scheduled project meetings (assuming minimum bi-weekly meetings) by representatives of each key Consultant discipline relevant for the phase of the work.

.7 Attendance as required by key Sub-Consultants at special project meetings when required in response to specific technical issues as they arise.

.8 Site reviews, documentation and evaluation of contract deficiencies.

PD 4.7 PHASE 6 – POST CONSTRUCTION SERVICES (RCMP BUILDING COMPONENTS AND CONNECTIVITY (BCC) INSTALLATIONS)

.1 Attendance at all regularly scheduled project meetings (assuming minimum bi-weekly meetings) by representatives of each key Consultant discipline relevant for the phase of the work.
.2 Follow up on completion of base building deficiencies in support of Total Completion.
.3 Technical review of all BCC systems and installation requirements as may be designed and specified by third parties for coordination and integration with base building systems.
.4 Review and response to RFI's from base building contractor and from BCC contractors as they relate to base building systems, preparation of draft Site Instructions, draft Change Directives, draft Contemplated Change Orders, and draft Change orders for review and issue by the Contract Authority to allow for integration and installation of RCMP BCC with base building contract requirements.

PD 4.8 PHASE 7 - COMMISSIONING

.1 Prepare comprehensive commissioning plan for all Building systems in accordance with requirements identified in PSPC Commissioning Policy, and the PSPC Commissioning Manual. Reference; http://www.tpsgc-pwgsc.gc.ca/biens-property/politiques-policies/misenservice-commissioning-eng.html and the GP&S document.
.2 Ensure commissioning requirements have been incorporated into appropriate sections of the project specifications prior to tender.
.3 Monitor and document all commissioning activities as required.
.4 Conduct final site reviews and provide certifications for Final Completion.

PD 4.9 PHASE 8 - WARRANTY SERVICES

.1 Six weeks before the expiration of the warranty period conduct a site review and document all deficiencies or issues noted that are covered by project warranties.
.2 Attend meetings as required with affected contractors, or subcontractors to review requirements for corrective action.
.3 Review and document contractor follow up to warranty related corrective work.

PD 4.10 ARCHITECTURAL SERVICES

4.10.1 Comprehensive professional design services to provide a new Detachment in response to the operational requirements estimated at 588m^2 gross building area, and delivered within a preliminary construction estimate of $6.5M.
4.10.2 Analysis design and delivery approach of modular vs on site construction to consider cost, logistics, schedule and other any other benefits or disadvantages of either options.
4.10.3 Coordination of all professional services as required to deliver an integrated comprehensive design solution.
4.10.4 Comprehensive interior design services, including layouts, systems furniture coordination, finishes, acoustic treatment/systems design, and built- in furnishings as required.
4.10.5 Specific design and specification of locking hardware and physical security systems in compliance with RCMP standards.
4.10.6 Determine requirements for, coordination of all requirements, and production of required documentation in all forms related to submissions for approval to all authorities having jurisdiction, including but not limited to, Government of

Nunavut, Municipality of Pangnirtung, RCMP Fire Marshall, and Environment Canada, local and provincial authorities.

4.10.7 Coordinate and develop a building operation and maintenance manual (BOM). Based on the O&M manual, develop a building maintenance guide with instructions on how to operate, service, maintain all building systems. BOM is to be written for use of detachment staff as service personnel are not readily available to provide facility maintenance.

PD 4.11 Civil Engineering Services

4.11.1 All services required to design and construct required site utility services including but not limited to power, fuel, water, storm and sanitary sewers, and utility infrastructure in support of business continuity requirements including emergency power systems.

4.11.2 All services required for complete site development modifications, including but not limited to contaminated soils remediation, excavation and grading, drainage, and roads, parking areas, curbs, sidewalks and coordination with site security infrastructure, lighting and landscape elements.

4.11.3 Coordinate requirements for a geo-technical investigation and site survey in support of building and site design to be separately engaged by the RCMP.

4.11.4 Coordinate and develop a building operation and maintenance manual (BOM). Based on the O&M manual, develop a building maintenance guide with instructions on how to operate, service, maintain all building systems. BOM is to be written for use of detachment staff as service personnel are not readily available to provide facility maintenance.

PD 4.12 Structural Engineering Services

4.12.1 Comprehensive structural engineering services to design all applicable structural elements to current construction standards, as defined by applicable building codes.

4.12.2 Exterior elements in support of business continuity infrastructure components and site development;

PD 4.13 Mechanical Engineering Services

4.13.1 Comprehensive mechanical engineering services to design all applicable mechanical systems for the operation of a new facility including systems in support of business continuity.

4.13.2 All documentation required from all applicable authorities having jurisdiction for provincial and federal environmental and technical approvals.

4.13.3 Preparation of submissions to all authorities having jurisdiction and liaison as required to achieve approvals.

4.13.4 Specific site review services as required to provide stamped record drawings of fuel storage and delivery system to confirm conformity with Environment Canada regulations.

4.13.5 Coordinate and develop a building operation and maintenance manual (BOM). Based on the O&M manual, develop a building maintenance guide with instructions on how to operate, service, maintain all building systems. BOM is to be written for use of detachment staff as service personnel are not readily available to provide facility maintenance.

4.13.6

PD 4.14 Electrical Engineering Services

4.14.1 Comprehensive electrical engineering services to design all applicable

electrical systems for the operation of a new facility including systems in support of business continuity.

4.14.2 Specialty electrical engineering services related to design, coordination and installation of comprehensive audio-visual, information network, and security systems, as per requirements to evolve in detail during design development. Refer to PD5.

4.14.3 Coordination with third party suppliers for integration of RCMP procured proprietary systems for audio-visual, information network, and security systems.

4.14.4 Specialty interior lighting design including general and task lighting to suit user requirements as per functional program.

4.14.5 Exterior site lighting.

4.14.6 Security systems infrastructure.

4.14.7 Specific site review services as required to provide stamped record drawings of fuel storage and delivery system to confirm conformity with Environment Canada regulations.

4.14.8 Coordinate and develop a building operation and maintenance manual (BOM). Based on the O&M manual, develop a building maintenance guide with instructions on how to operate, service, maintain all building systems. BOM is to be written for use of detachment staff as service personnel are not readily available to provide facility maintenance.

PD 4.15 Landscape Architectural Services

4.15.1 Comprehensive Landscape Architectural design services to design all exterior elements as required to allow for location of new building and associated equipment in the context of existing site elements including roads, parking, pathways, site lighting, grounds, planting beds, trees, site drainage and fencing.

4.15.2 All exterior signage and way finding to suit site standards.

4.15.3 Preparation of all design elements, materials and presentations in order to obtain applicable approvals from other authorities having jurisdiction including municipal site plan approval.

PD 4.16 Commissioning Services

4.16.1 Preparation of comprehensive documentation to define requirements for complete building systems.

4.16.2 All commissioning activities as required to design, check and verify that all building systems are functioning to the design specifications.

4.16.3 Review, verification and documentation of all contracted commissioning activities.

4.16.4 Coordinate and develop a building operation and maintenance manual (BOM). Based on the O&M manual, develop a building maintenance guide with instructions on how to operate, service, maintain all building systems. BOM is to be written for use of detachment staff as service personnel are not readily available to provide facility maintenance.

PD 4.17 Project Monitoring and Control Services

4.17.1 Preparation of comprehensive construction cost estimates at appropriate levels (D, C, B and A) for the stage of the project.

4.17.2 Preparation of estimates of Operating, maintenance and life cycle costs in conjunction with considerations of alternate building systems in the context of

Value Engineering.

4.17.3 Provision of analysis of tender costs and recommendations of reasonableness.

4.17.4 Provision of analysis of submitted proposed change costs and schedule impacts and recommendations of reasonableness.

4.17.5 Provision of Project schedule and monitoring/updating of project schedule from baseline.

4.17.6 Provision of a Risk Management plan, monitoring and updating of same.

PD 5 BUILDING COMPONENTS AND CONNECTIVITY (BCC)

PD 5.1 GENERAL

5.1.1 The project mandate includes implementation of the Building Components and Connectivity (BCC) program. The objective of the BCC program is to meet the operational requirements of the RCMP to allow immediate occupancy of the space. Building components means building fixtures, furnishings and equipment. Building connectivity means the physical, electronic and other systems that connect buildings and the workstations in them. BCC components and installations may be procured by RCMP or PSPC separately from the construction contract, and installed after substantial completion of the base building. Planning for integration of all aspects of the BCC program is included in the project mandate.

5.1.2 BCC Components include acquisition for the following list:

.1 Commercially available furniture,
.2 Specialty operational workstations, consoles, and technical workstation furnishings,
.3 Purpose-Built or manufactured furniture and shelving,
.4 LAN server room racks and equipment,
.5 Audio Visual equipment and systems,
.6 Collaborative area seating,
.7 Seating and task chairs,
.8 Task Lighting,
.9 Art and Artefacts,
.10 Kitchenette Food Service Equipment (refrigerators, microwaves, dishwashers)
.11 Police Radio System tower and Antennae/Whips,
.12 Security Systems Equipment, including access control, intrusion detection and CCVE systems and systems specialty cabling as specified by RCMP,
.13 Specialty door hardware and locking systems,
.14 Health and Safety Equipment,
.15 Signage and Wayfinding systems,

5.1.3 BCC Components do not include the following:

.1 Office equipment related to administrative functions such as: computers, printers, fax machines, or phone sets,

5.1.4 BCC Connectivity includes the following components or systems:

.1 Infrastructure and conduit, tray, raceway systems and end device boxes, designed, supplied and installed under the general contract.
.2 Specialty information system and secure network cabling and terminations (comprehensive for all systems)
.3 Integrated Security System,

.4 Closed circuit video surveillance system,
.5 IT Network cabling and WIFI,
.6 Telephony,
.7 Entry systems,
.8 Multimedia and AV systems,
.9 Police Radio System Antennae/Whips,
.10 Integrated Digital Building Management System, designed, supplied and installed under the general contract.
.11 Integrated Fire Alarm Monitoring System, designed, supplied and installed under the general contract.

PD 5.2 SCOPE OF BCC COORDINATION AND DESIGN SERVICES FOR THIS PROJECT

5.2.1 For this project, BCC is divided into functional groups as follows:
.1 Information and Network systems,
.2 Security systems,
.3 Fixtures, Furniture and Equipment,
.4 Police Radio System

5.2.2 Documentation of requirements and procurement methodologies for BCC components will be conducted simultaneously with development of the project and form part of the services to be provided by the Consultants.

5.2.3 The Consultant must provide procurement and system integration specifications and drawings for all BCC based upon base requirements and or specifications provided by the RCMP.

5.2.4 It will be the Consultant's responsibility to ensure that all BCC components are fully coordinated and integrated into the base building throughout design and construction. Including but not limited to HVAC systems, electrical systems, ducts, conduits, raceways, electrical boxes for outlets and device related installations, and specialty hardware.

5.2.5 The Consultant will be responsible to coordinate and integrate in the main project schedule, the schedule of deliverables for the BCC independent of procurement source such that the information for pathways and service infrastructure are received in a timely manner for the production of design / contract documents and to achieve timely project implementation during construction and commissioning.

5.2.6 The Consultant will be responsible to provide separate Class 'D', 'C', 'B', and 'A' estimates at each submission stage of the project corresponding with all stages of the base building design development for the full BCC program.

5.2.7 The Consultant will be responsible for all technical coordination issues related to BCC installations relative to the base building systems and infrastructure, in the period post Substantial Completion during the FFE and BCC component installations, tenant fit-up and commissioning stages of the project.

PD 6 PROJECT DELIVERY APPROACH

PD 6.1 GENERAL

6.1.1 This project will use a Construction Management (CM) approach for construction. The CM will act a Construction Management advisor (CMa) throughout design, as well as a Contractor (CMc). Anywhere the term Contractor is used in this document it refers to the CMc. The CM is anticipated to engage in the design process following the Project Analysis / Schematic Design stage.

6.1.2 It is anticipated that multiple tender packages could be required for this project. The site development, foundation and structure design must be complete prior to the 2018 construction season to allow the CM to start work in spring of 2018.

6.1.3 The Consultant shall prepare the tender packages and in coordination with the Construction Manager to ensure full co-ordination of the work of all disciplines and sequences of construction.

6.1.4 The Consultant engaged through this RFP by the RCMP will provide the services required under the general direction of the RCMP Project Manager and will coordinate all design, and construction contract administration activities based on formal direction from the RCMP Departmental representative as delegated.

6.1.5 A Construction Manager will be retained by the RCMP and report to the RCMP Departmental Representative with support from the Consultant to co-ordinate all services related to construction.

6.1.6

PD 7 SCHEDULE

PD 7.1 GENERAL

7.1.1 Deliver the project to be ready for occupancy in accordance with the project milestone target periods as identified below.

Stage	Durations
Award of Consultant Contract	Milestone
Security Clearances Processing	3 months
Design Startup	Milestone
Pre Analysis / Schematic Design	
Design Development	
Award of Construction Manager	Milestone
33% Construction Documents	
66% Construction Documents	
99% Construction Documents	
Tender Ready Construction Documents	8 Months
CM Sequential Construction Tendering	3 Months
Contractor Security clearances complete	1 to 3 Months
Construction start	Milestone
Substantial Completion- base building	28 Months
BCC / FFE and Tenant installations/Commissioning	2 Months
Occupancy and start up	Milestone
Demolition and site cleanup	3 Months

Post Warranty / Closeout	12 Months

7.1.2 The site development, foundation and structure design must be complete prior to the 2018 construction season to allow the CM to start work in spring of 2018.

7.1.3 Prepare a detailed network diagram using commercially available software, in accordance with the above milestone listing, for review as part of the deliverables identified in the Required Services (RS) Section.

PD 8 COST

8.1.1 The estimated preliminary construction cost estimate (Class D) (Base building) in current dollars (excluding GST), at this time, is as follows:

.1	Construction Cost	$6.5 Million

8.1.2 Cost estimates do not include Project Management fees, administration costs, building permit, Consultant fees, or GST.

8.1.3 A construction estimate of $6.5M has been identified above. Project design must take into consideration the project budget and functional requirements throughout the development of the project to ensure that both Scope and Cost objectives are met.

8.1.4 The project budget is based on the above identified preliminary estimate. Estimates for Construction and BCC will be developed and updated by the Consultant at identified stages in project development and will be reviewed by the RCMP for compliance with the overall project budget. Proceeding to subsequent stages will be subject to RCMP approval of estimate variances.

PD 9 SUSTAINABLE DEVELOPMENT

PD 9.1 OVERVIEW

9.1.1 Sustainable Development objectives must be addressed throughout the evolution of the project. Sustainable Development is defined in broad terms as a strategy that routinely and consistently includes the consideration of the environmental, economic and societal impact of every decision made for the project. The general areas of focus and in accordance with LEEDv4, 2015 National Energy Code of Canada for buildings, ASHRAE 90.1 and C2000 standards include:

.1 Energy efficiency and conservation,
.2 Greenhouse gas emissions reduction,
.3 Water management and conservation,
.4 Pollution prevention,
.5 Product selection and resource conservation,
.6 Indoor environmental quality (thermal, air, and lighting quality),
.7 Site conservation (protection and preservation of valued natural site features),
.8 Measurement and Verification to provide an ongoing accountability of energy and building services consumption over time.
.9 Environmentally friendly maintenance procedures and products.

9.1.2 Energy modeling report will be required in accordance with NECB 2015 following the performance path demonstrating compliance with NECB 2015

9.1.3 For this project, a solid waste management program must be implemented for all construction phases. Service requirements for Sustainable Development are identified in the Required Services (RS) Section.

PD 9.2 DESIGN GUIDELINES FOR SUSTAINABLE DEVELOPMENT

9.2.1 The Consultant shall review and incorporate were applicable the principles of sustainable design as described in PSPC published documentation, available from PSPC at the following link: *http://www.tpsgc-pwgsc.gc.ca/biens-property/sngp-npms/bi-rp/conn-know/enviro/pci-idp-eng.html*

PD 10 DESIGN QUALITY

PD 10.1 PEER REVIEWS

10.1.1 The Consultant is responsible for controlling quality throughout the life of the project. As part of the design quality assurance process the Consultant will be responsible for coordinating Peer Reviews for each discipline.

10.1.2 Peer Reviews will be completed by all disciplines/stakeholders and documented with follow up responses for each design submission.

10.1.3 Submit summary documentation of Peer Reviews for review by the RCMP with each stage report.

PD 10.2 RISK MANAGEMENT

10.2.1 A risk management strategy is crucial for the RCMP Project Management system and integrates project planning into procurement planning. All the stakeholders of a project will be an integral part of the risk management strategy. Service standards required for project delivery are outlined in available PSPC publications. *Reference link: http://www.tpsgc-pwgsc.gc.ca/biens-property/sngp-npms/bi-rp/conn-know/risque-risk/index-eng.html*

PD 11 CONSULTANT TEAM

PD 11.1 GENERAL

11.1.1 The Consultant Team must maintain its expertise for the duration of the project. The Consultant Team must include at minimum the following disciplines: Architecture (the Consultant), Civil Engineering, Mechanical Engineering, Electrical Engineering, Structural Engineering, Landscape Architect, and Commissioning Specialist.

11.1.2 The Consultant shall be responsible to co-ordinate and direct all Consultant Team activities.

11.1.3 The Consultant Team shall be comprised of competent and qualified personnel having professional and technical expertise with extensive relevant experience, and shall be capable of providing the services identified in the Required Services (RS) Section of this Project Brief.

.1 Members of the Consultant Team may have the necessary qualifications and expertise to provide services in more than one discipline or specialty

.2 Consultant are permitted to expand their Consultant Team to include additional disciplines as required, in order to successfully deliver the project.

11.1.4 Expertise and relevant experience requirements for this project are as follows:

.1 Administrative
- .1 Project Management
- .2 Scheduling
- .3 Risk Management
- .4 Cost consulting

.2 Regulatory Analysis, Planning, Design, and Development
- .1 Building Code
- .2 Municipal Zoning
- .3 Occupational Health and Safety
- .4 Fire and Life Safety

.3 Program Analysis, Planning, Design, and Development
- .1 Enriched front end planning
- .2 Functional Programming

.4 Site Analysis, Planning, Design, and Development
- .1 Site Planning
- .2 Landscape Architecture
- .3 Civil Engineering / Municipal Engineering (infrastructure)

.5 Building Analysis, Planning, Design, and Development

.6 Architecture and Specialties:
- .1 General Architecture
- .2 Interior Design
- .3 Furniture/Workstation Specialist
- .4 Sustainable Design (LEED)
- .5 Codes and life safety
- .6 Building envelope
- .7 Signage and Wayfinding
- .8 Hardware specialist
- .9 Security design specialist

.7 Engineering:

.8 Structural
- .1 Seismic

.9 Mechanical
- .1 Heating Ventilation Air Conditioning (HVAC)
- .2 Plumbing
- .3 Fire protection
- .4 Indoor / outdoor air quality design and control
- .5 Building automation / energy management control systems

.10 Electrical
- .1 Power
- .2 Lighting
- .3 Audio visual systems
- .4 Information technology and communications
- .5 Network Infrastructure systems

.11 Civil

.12 Landscape Architecture

.13 Commissioning

.14 Budget, Schedule and Risk Analysis, Planning, Design, and Development

.1 Cost planning
.2 Estimating
.3 Life cycle costing,
.4 Change evaluation and cost control
.5 Time planning, scheduling, and schedule monitoring
.6 Risk management

PD 12 EXISTING DOCUMENTATION

PD 12.1 EXISTING DOCUMENTATION

12.1.1 To be Made Available to the Consultant

.1 Topographical survey information of the existing site
.2 Geotechnical report 2017.
.3 Phase II Environmental Site Assessment 2017
.4 Phase I Environmental Assessment of Detachment facility to be demolished. Feb 2010

PROJECT ADMINISTRATION

PA 1 PROJECT ADMINISTRATION

PA 1.1. GENERAL

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

PA 1.2. CONTRACT AUTHORITY

1.2.1. The RCMP is the Contract Authority.

1.2.2. Changes to the Consultant agreement can only be authorized by the Contract Authority.

PA 1.3. RCMP PROJECT MANAGEMENT

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

1.3.2. The RCMP Departmental Representative is directly concerned with the project and responsible for its progress on behalf of the RCMP.

1.3.3. The RCMP administers the project and exercises continuing control over the project during all phases of development.

1.3.4. Unless directed otherwise by the RCMP Departmental Representative, the Consultant is responsible to obtain all Federal, Provincial and Municipal requirements and approvals necessary for the work. Applications and liaison with other GOC departments shall be coordinated through the RCMP Departmental Representative.

PA 1.4. LINES OF COMMUNICATION

1.4.1. Unless otherwise directed by the RCMP Departmental Representative, conduct all project communication.

1.4.2. Formal contact between the Consultant and the RCMP Project Team, which includes RCMP Representatives, shall be through the RCMP Project Manager.

1.4.3. Direct communication between Consultant Team members and the RCMP Project Team on routine matters is required to enable the discussion and resolution of technical issues, however, no communication shall alter the terms of the project scope, budget or schedules unless directed in writing by the RCMP Departmental Representative.

1.4.4. During construction tender call the RCMP is responsible for all correspondence with bidders and makes the contract award.

PA 1.5. MEDIA RELATIONS

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

1.5.2. The Consultant shall not use any project related materials, information, drawings, images or photographs in any form for publicity or promotional purposes without the express written authorization of the RCMP Departmental Representative, which may be withheld at the sole discretion of the RCMP.

PA 1.6. GENERAL PROJECT DELIVERABLES

1.6.1. Where deliverables and submissions include summaries, reports, network diagrams, drawings, plans, specifications or finish schedules, submit deliverables as follows:

.1 Hard copies: four (4) English

.2 Electronic format: One (1) copies English. The electronic deliverables shall be provided using Microsoft applications.

.3 Alternate electronic format: the Consultant may submit all work in Adobe Acrobat *.pdf format except for Network Diagrams which must be submitted in their original electronic format.

.4 All drawings will be generated and distributed in the format using layering and file transfer protocols as prescribed in the reference document available online. *Reference; http://www.tpsgc-pwgsc.gc.ca/biens-property/cdao-cadd/index-eng.html*

.5 Record drawings will be delivered in electronic (PDF and CADD) and hard copy format.

1.6.2. Construction documents issued for tender purposes must be English.

PA 1.7. ACCEPTANCE OF PROJECT DELIVERABLES

1.7.1. While the RCMP acknowledges the Consultant's obligations to meet project requirements, the project delivery process entitles the RCMP to review work. The RCMP reserves the right to reject undesirable or unsatisfactory work. The Consultant must obtain Departmental Representative acceptances during each of the project stages.

1.7.2. Acceptances indicate that based on a general review of material for specific issues, the material is considered to comply with governmental and departmental objectives and practices, and that overall project objectives are being satisfied.

1.7.3. The acceptance does not relieve the Consultant of professional responsibility for the work and compliance with the contract.

1.7.4. The RCMP acceptances do not prohibit rejection of work, which is determined to be unsatisfactory at later stages of review. If progressive design development or time / cost / risk updates or technical investigation reveals that earlier acceptances must be withdrawn, the Consultant is responsible for re-designing work and re-submitting for acceptance at the Consultant's cost.

1.7.5. Acceptances by other agencies and levels of government must be obtained to supplement the RCMP acceptances. The Consultant shall assist the Departmental Representative in securing all such acceptances and adjust all documentation as required by such authorities when securing acceptance.

PA 1.8. COORDINATION WITH SUB-CONSULTANTS

1.8.1. Throughout all phases of the project, assume responsibility for co-ordinating the work of any Sub-Consultants and specialists retained by the Consultant,

1.8.2. Ensure clear, accurate and ongoing communication of concept design, budget, and scheduling issues including changes as they relate to the responsibilities of all Sub-Consultants and specialists from initial base building reviews to post construction reports.

1.8.3. Co-ordinate input for the Departmental Representative's Risk Management Plan.

1.8.4. Co-ordinate the Quality Assurance process ensuring submissions of Sub-Consultants are complete and signed-off by the designated senior reviewer of the Consultant.

1.8.5. Ensure Sub-Consultants provide adequate site inspection services and attend all required meetings.

PA 1.9. PROJECT RESPONSE TIME

1.9.1. It is a requirement of this project that the key personnel of the Consultant and sub-Consultants or specialist firms are personally available to attend meetings or respond to inquiries within two working days of a request by the RCMP Project Manager.

PA 1.10. MEETINGS

The Consultant with the RCMP Departmental Representative shall arrange meetings generally every two weeks throughout the entire project development and implementation period, for all members of the project Team, including representatives from RCMP; Consultant Team; and CM.

1.10.1. During design and tendering phases:

.1 Attend the meetings,

.2 Record the issues and decisions,

.3 Prepare and distribute minutes within two (2) working days of the meeting.

.4 Meetings will normally be held at the office of the RCMP Departmental Representative, or the Consultant.

1.10.2. During construction and implementation:

.1 Attend the meetings,

.2 Prepare and distribute minutes within two (2) working days of the meeting.

.3 Standing agenda items shall include:

- .1 Project Planning Monitoring and Control,
- .2 Health and Safety,
- .3 Schedule,
- .4 Cost,
- .5 Risk,

.4 On occasion, there may be urgent problem-solving meetings. The Consultant and sub-Consultants as required shall be available to attend such meetings.

PA 2 AUTHORITIES, SUBMISSIONS, REVIEW AND APPROVAL PROCESSES

PA 2.1. FEDERAL GOVERNMENT AUTHORITY/JURISDICTION

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

.5 Treasury Board of Canada
- .1 Project approvals

.6 The Royal Canadian Mounted Police
- .1 Tendering and procurement
- .2 Contract approvals
- .3 Contract Authority
- .4 Government of Canada Security Policy
- .5 RCMP Departmental Authority
- .6 Project delivery
- .7 Functional design requirements and standards
- .8 Multimedia
- .9 IT
- .10 Security systems
- .11 Life safety
- .12 Personnel Security

.7 Environment Canada
- .1 Canadian Environmental Assessment Act and
- .2 Canadian Environmental Protection Act

.8 National Building Code
- .1 Building codes and standards

PA 2.2. PROVINCIAL AND MUNICIPAL AUTHORITIES/JURISDICTION

2.2.1. The Federal government does defer to provincial and municipal authorities for specific regulations, standards and inspections. In areas of conflict, the Federal authority prevails.

.1 Labour Board
- .1 Employment Standards
- .2 Construction Safety
- .3 Designated Substance Management
- .4 Workers Compensation

.2 Nunavut Department of Environment

.3 Local Electrical and Gas Authority
- .1 Electrical installations

.4 Natural Gas installation

.5 Municipality/City Authority/Utility
- .1 Zoning
- .2 Site Plan Control, development plan
- .3 Building, Electrical and Plumbing Permits and Inspection
- .4 Fire Safety, Equipment and access for fire-fighting equipment

PA 2.3. PRESENTATIONS AND SUBMISSIONS

2.3.1. The RCMP Departmental Representative, as well as the Federal Authorities identified below will review work in progress on a continuing basis. Formal presentations are required for design and project approvals in accordance with the Project Delivery

Phases outlined in Required Services (RS). Ad hoc presentations will be required to various committees and senior officials. Below is a list of federal Authorities that will require presentations and submissions for approval.

2.3.2. The frequencies of meetings indicated are estimates. They will be affected by the project phase, issues and requirements for decisions and approvals. The Consultant will be required to attend all meetings as needed and to make presentations to satisfy Authorities as identified.

2.3.3. Municipal Building Permits and Other Permits:

.1 Co-ordinate submission requirements, schedule, number of submissions and turnaround time with the municipal authority:

.2 Development Permit

.1 While Municipal Development and Site Planning approval is not required for Federal Properties, consultation with the municipal planning / zoning officials shall be undertaken for this project.

.2 On behalf of the RCMP, the *Consultant* shall submit design development documents to the City or municipal authority for review and comment regarding site planning.

.3 The *Consultant* shall undertake negotiations and identify any problems to the *Departmental Representative* for final resolution by the RCMP.

.3 Building Permit

.1 On behalf of the RCMP, the contractor shall apply for a Building Permit.

.2 The Consultant will prepare all necessary supporting documentation for this permit application.

.3 The Consultant shall complete negotiations and resolve all permit related issues prior to tender.

.4 Municipal authorities will inspect the construction site.

.5 For this project, which will utilize the National Building Code, early and periodic submissions/ presentations to the city by the Consultant will be required.

.6 Submissions will begin at the Schematic Design Phase including the options analysis and selected design option.

.7 Subsequent submissions / presentations will be required throughout the remainder of the design phases including during Pre Design Analysis, Design Development and at each of 33%, 66% and 99% complete Construction Documents.

.4 Occupancy Permit

.1 The contactor shall apply for an Occupancy Permit.

.2 The Consultant shall coordinate the resolution of all outstanding issues related to obtaining the permit.

.3 Municipal authorities will have access to the site as required.

2.3.4. RCMP Senior Management Approvals

.1 The Project will be subject to approvals by senior managers of the RCMP.

.2 Purpose of review and approval:

.1 Final decision authority for all options,

.3 Submission format:

.1 Report, Drawings and specifications, Oral presentation, unilingual English

.4 Submission schedule:

.1 Submissions are reviewed at schematic (concept) design phase, design development phase, Pre- Tender,

.5 Number of submissions:

.1 As required to obtain approval with the assumption that acceptance of submissions for approval will be progressive and based on previous approvals.
.2 One (1) mandatory submission for each scheduled occurrence, plus any follow-up reviews.

2.3.5. RCMP Project Delivery Team

.1 Purpose of review and approval:
  .1 Program and budget compliance, design, and technical quality assurance
.2 Submission format:
  .1 Reports, drawings and specifications, oral presentation, unilingual English
.3 Submission schedule - submissions are reviewed at;
  .1 pre-design /schematic (concept) phase, design phase, design development phase, construction documents phase, 33%, 66% and 99% complete,
.4 Expected review and approval turnaround time:
  .1 2 weeks (10 working days)
.5 Number of submissions:
  .1 One at each stage providing Five (5) mandatory hard copies and one (1) electronic copy for each scheduled occurrence, plus any follow-up reviews.

2.3.6. RCMP Fire Marshall – Health and Safety

.1 Purpose of Review and Approval:
  .1 Health and life safety;
.2 Submission Format:
  .1 report, drawings and specifications as required;
.3 Submission Schedule:
  .1 Approvals required as described per stages;
.4 Expected Turnaround Time:
  .1 three (3) weeks; (15 working days)
.5 Number of Submissions: until approval has been received.

2.3.7. Municipality/City

.1 Purpose of Review and Approval:
  .1 Municipal approvals
  .2 Site plan approval, Building permit, Occupancy permit.
.2 Submission Format:
  .1 Drawings and specifications;
.3 Submission Schedule:
  .1 Submissions are reviewed when completed work has been forwarded to the Departmental Representative for site plan and building permit approvals;
.4 Expected Turnaround Time:
  .1 According to municipal schedules;
.5 Number of Submissions:
  .1 Until approval has been received.

2.3.8. Other Authorities Having Jurisdiction

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

.2 Codes, regulations, by laws and decisions of authorities having jurisdiction shall be observed.

.3 In cases of overlap, the most stringent will apply. The Consultant shall identify other jurisdictions appropriate to the project.

.4 The RCMP will voluntarily comply with the applicable provincial Construction Health and Safety Acts and regulations, in addition to the related Canada Occupational Safety and Health Regulations.

2.3.9. Public Presentation and Consultation

.1 Any requirement for a public presentation would be requested and compensated as an additional service.

REQUIRED SERVICES

RS 1 ANALYSIS OF PROJECT REQUIREMENTS

RS 1.1 INTENT

1.1.1 This stage is intended for the Consultant to review and report on all aspects of the project requirements. The Consultant Team will review, gather and analyse all available program information, consult with the RCMP to develop a functional program and deliver a comprehensive Pre-Design Report. This approved deliverable will become the formal project work plan and will be utilized throughout the project to guide the delivery.

RS 1.2 SCOPE AND ACTIVITIES:

1.2.1 Analyse the project requirements / program including any amendments,

1.2.2 Options analysis of the project design and delivery approach of modular vs on site construction. Consideration must be given to but not limited to analysing cost, logistics, schedule and other any other benefits or disadvantages of either options.

1.2.3 Analyse all available base building and site information,

1.2.4 Analyse BCC requirements including any amendments identified by the RCMP for Information Services, Security and Furniture / Equipment,

1.2.5 Analyse the building design security requirements and confirm design standards,

1.2.6 Identify sustainable design strategies and confirm design requirements to meet a LEED standards. (Note: submission for certification will not occur),

1.2.7 Review all other available existing material related to the project including requirements identified in the Project Brief,

1.2.8 Identify all additional information that will be needed to deliver the project,

1.2.9 Undertake a budget, schedule and risk analysis and identify any conflicts that will need to be addressed with respect to scope, quality, schedule, cost

1.2.10 Identify and verify all authorities having jurisdiction over the project and codes, regulations and standards that apply,

1.2.11 Develop an updated detailed work breakdown structure that incorporates all of the above together with a detailed schedule including allowances for reviews and approvals for each stage of the project including deliverable requirements for BCC, Information Services and Security to be integrated into base building.

RS 1.3 DELIVERABLES

1.3.1 Prepare and submit an integrated Stage One Pre-Design Project Report, which includes a functional program and an analysis modular vs on site construction of project requirements for review and approval by the Departmental Representative. Revise as required by the Departmental Representative. Resubmit for acceptance.

1.3.2 The Stage One Pre-Design Project Report will consolidate the scope and activities identified above and will be utilized as the benchmark project control document to monitor progress of the project. The report will be used as a basis for monthly reporting of progress and will require supplements and modifications to reflect changes in project parameters as may be identified and accepted throughout the project life cycle.

1.3.3 The structure used for the Stage One Pre-Design Project Report shall be used for the required project reports for all subsequent project stages. The content of the

subsequent reports will vary according to the project stage.

RS 1.4 STAGE ONE PRE-DESIGN PROJECT REPORT STRUCTURE AND CONTENT

1.4.1 Executive Summary

The executive summary is intended to provide a précis of the Stage One Pre-Design Project Report and outline any recommendations requiring the RCMP approval.

1.4.2 Administrative

.1 Aspects to be included (but not limited to) are:
.2 Summaries of project start-up meetings, workshops, partnering sessions,
.3 Quality management process for the Consultant Team,
.4 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
.5 Summary analysis of state of project readiness and viability of budget and schedule.

1.4.3 Regulatory Analysis

.1 Aspects to be included (but not limited to) are:
.2 Preliminary summary of regulatory and statutory requirements,
.3 Preliminary summary of authorities having jurisdiction,
.4 Preliminary summary of codes, regulations, and standards, and
.5 Summary analysis of regulatory limitations and project impacts.

1.4.4 Program Analysis

.1 Aspects to be included (but not limited to) are a review and analysis of:
.2 Updated Functional program including room data sheets
.3 Programmatic options,
.4 RCMP reports, studies Guidelines,
.5 Space data sheets,
.6 Work station/work settings report, office, common area and commercial space requirements,
.7 BCC requirements,
.8 Summary analysis of Program requirements.

1.4.5 Site Analysis

.1 Aspects to be included (but not limited to) are a review and analysis of:
.2 Site features and restrictions (i.e. landscape features, topographical feature, climatic influences, setback requirements, easements, existing buildings, and / or structures.), parking capacity,
.3 Review of subsurface, geotechnical analysis of soils,
.4 Municipal infrastructure, subsurface and above grade services, including capacities and limitations (i.e. storm water drainage, fire protection, domestic water, power, telecommunications,),
.5 Historical/archaeological features, previous uses
.6 Environmental features including sustainable design opportunities
.7 Summary analysis of Site conditions and project impact.

1.4.6 Building Analysis

.1 Aspects to be included (but not limited to) are a review and analysis of:
.2 Substructure, including foundations and basement(s),

.3 Shell, including superstructure, exterior enclosure, roofing,
.4 Interiors, including building levels, interior construction,
.5 Services, including conveying (elevators, escalators), plumbing, HVAC, fire protection, electrical, telecommunications, building automation,
.6 Sustainable design opportunities, strategies, (i.e. energy, water, waste), and,
.7 Summary analysis of building considerations.

1.4.7 Sustainable Development Strategies

.1 Aspects to be included (but not limited to) are a review and analysis of:
.2 Potential for environmental impacts and project impacts required by application of the Canadian Environmental Assessment (CEA) Act,
.3 Review and assessment of sustainable development design standards to be applied to the project, the project to meet LEED standards or equivalent standard (i.e. energy, water, waste),
.4 Project approach to minimize environmental impacts consistent with the project objectives and economic constraints.
.5 Summary analysis of sustainable Development strategies and approach.

1.4.8 Budget, Schedule, and Risk Analysis

.1 Aspects to be included (but not limited to) are:
.2 Class 'D' estimate, for construction and BCC,
.3 Detailed work breakdown structure complete with level four sub-tasks,
.4 Analysis of risk implications and preliminary mitigation strategies, and
.5 Budget, Schedule, and Risk Analysis section of the pre-design report.

1.4.9 Rebuttal to internal/external Quality Assurance Audit

.1 Aspects to be included (but not limited to) are:
.2 Review and analysis of comments provided by the RCMP Project Team, and
.3 Summary and results of internal Peer Reviews.
.4 Written response to all comments provided by the above and a summary of project impacts.

RS 2 SCHEMATIC DESIGN (DESIGN CONCEPT)

RS 2.1 INTENT

2.1.1 The Consultant must obtain written authorization from the RCMP Departmental Representative before proceeding with Schematic Design.

2.1.2 The objective of the Schematic Design stage, also referred to in this Project Brief as Design Concept, is to explore **three** distinctly different design options and to analyze them against the project requirements.

2.1.3 The Consultant Team will explore three distinctly different design concepts presented in sketch format (single line, produced to scale), fully integrated and supported by two or more distinctly different engineering solutions for the structure, mechanical, electrical systems, along with physical or digital massing models, site slides and photographs, energy analysis and life cycle cost analysis, analytical data and calculations and sufficient narrative to allow comparison and analysis against project requirements, budget, and the selection of a design direction for preparation of a final design concept.

2.1.4 The Schematic Design will be in sufficient detail to illustrate and communicate the project characteristics. 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. Out of this process a Schematic Design option will be accepted and authorization to proceed to the next phase.

2.1.5 Design Development will be based on the accepted Schematic Design.

2.1.6 The RCMP Departmental Representative, in concert with others shall approve one option to be further developed. (Note: although the Consultant is required to identify a preferred option, the RCMP Departmental Representative may select another option.)

RS 2.2 SCOPE AND ACTIVITIES:

2.2.1 Review, validate and update the details of the Functional Program requirements, including space data sheets,

2.2.2 Coordinate services as required with the BCC project for Information Services, Security, Equipment and Furniture,

2.2.3 Develop the sustainable design strategy,

2.2.4 Prepare a minimum of three (3) Schematic Design options,

2.2.5 Analyse each option with regard to the project goals including cost and schedule,

2.2.6 Undertake a budget, schedule and risk analysis and identify any conflicts that will need to be addressed with respect to scope, quality, schedule, cost,

2.2.7 Present / submit Schematic Design options for review and approval to committees, review groups and authorities having jurisdiction as identified in the Project Administration (PA) section,

2.2.8 Provide and / or coordinate all project requirements,

2.2.9 Coordinate all services with the Departmental Representative.

RS 2.3 DELIVERABLES

2.3.1 Schematic (concept) design documents illustrate the functional relationships of the project elements as well as the project's scale and character, based on the final version of the functional program, the schedule, and the budget.

2.3.2 Prepare and submit, for review and approval by the RCMP Departmental Representative, an integrated Stage Two Project Report, and Schematic (Concept) Design. Revise as required by the Departmental Representative. Resubmit for acceptance.

2.3.3 The report will update the Stage One Report using the established report structure and format, consolidate the Scope and Activities identified above, and will continue to be utilized as the benchmark project control document to monitor progress of the project.

2.3.4 The schematic (Concept) Design Report shall include written narrative, schematic drawings, graphics, model (traditional and / or computer generated).

2.3.5 Stage Two Report aspects to be included (but not limited to) are:

.1 Updated Functional Program including base building requirements and room date sheets,

.2 Statement of design principles for all disciplines,

.3 Drawings, renderings and supporting 3D visualization illustrating the building interior / exterior, site,

.4 Principles of BCC: Information Services, Security, Built-in Furniture and Equipment integration with base building,

.5 Outline specifications for building systems and equipment performance,

.6 Sustainable Development Strategies and Report including:

.7 Sustainable design opportunities, strategies, documentation of preliminary budgets (i.e. energy, water, waste),

.8 Identify which LEED equivalent Water Efficiency credits, Energy credits, Material credits; Indoor Environmental Quality credits will be pursued. For those credits identified, provide a short description on how they will be achieved.
.9 Risk Assessment Report,
.10 Report on any deviations that will affect cost or schedule and recommend corrective measures,
.11 Description of implementation plan,
.12 Updated detailed schedule, including deliverable requirements to be provided by the RCMP, Consultants for BCC: Information Services, Security, Furniture and Equipment to be integrated into base building,
.13 Class 'C' Estimate,
.14 Submit Project Log tracking all approved major decisions including those affecting changes to project scope, budget and schedule.

RS 2.4 PRESENTATIONS

2.4.1 The Consultant Team shall deliver presentations for the Schematic (concept) Design stage to RCMP, as outlined in the PA Submissions, Review, and Approval Process.

RS 2.5 DETAILS

2.5.1 Architectural

.1 Site plan relationships, landscape concept, building outlines, main accesses, roadways, vehicular and pedestrian traffic patterns.
.2 Concept building plans showing relative disposition of main accommodation areas, circulation patterns, floors, horizontal and vertical space relationships, mechanical / electrical shafts.
.3 Elevations and sections.
.4 Typical wall details for building envelope.
.5 Perspectives and / or 3D visualization.
.6 Prepare and submit a report indicating how the design will meet the RCMP's operational requirements. Include the following subjects:
.7 Building areas and summary of all accommodation areas required.
.8 Identify, in square meters, the area and spatial requirements for all unit spaces identified in the Functional Program.
.9 Identify, in square meters, the area to be provided to maintenance personnel, including storage and for mechanical and electrical utility areas.
.10 Identify, in square meters, the area to be used for housekeeping (janitor closets, receptacle for vacuum, equipment supply and storage of maintenance materials).

2.5.2 Civil

.1 Verification of all site services information.
.2 Site plans for the building showing existing and proposed site services and proposed building service connections.
.3 Where contributing to an existing sewer, include preliminary analysis of impact on existing systems.
.4 Concept plans for disbursement of storm water and site drainage systems.

2.5.3 Structural / Seismic

.1 General description of structures, including systems considered and benefits/disadvantages.
.2 Preliminary design loads for all load cases.
.3 Concept drawings of structural systems proposed, including typical floor plans, foundations, lateral systems and explanatory sketches.

2.5.4 Mechanical

.1 The concept submission shall include a description of the specific mechanical requirements and function for each area in the building. Incorporate in the submission a schedule of requirements confirming program requirements for all rooms and identify the mechanical building services to be provided.
.2 Explain in the concept submission the manner in which the proposed mechanical systems correlate with users' requirements and in accordance with Sustainable Development requirements.
.3 Identify whether full time operating staff will be needed for operating any of the mechanical equipment. Differentiate between staff that is needed by code requirements versus that staff which may be needed because of the nature and size of the facility.
.4 Identify location of entry point into the building of all mechanical services into the building.
.5 Confirm in square metres the area to be provided for mechanical rooms, and then identify what percentage of total building area this represents. Identify location of mechanical spaces in the building.
.6 Carry out preliminary energy analysis on system alternatives.
.7 Establish an energy budget for the building and compare it to energy consumption of other similar buildings. Total energy consumed in the building shall be expressed in kWh/sq. m.

2.5.5 Electrical

.1 Provide an electrical design synopsis, describing the electrical work in sufficient detail for assessment and approval by the Departmental Representative. Include feasibility and economic studies of proposed systems complete with cost figures and loads and in accordance with Sustainable Development requirements.
.2 Site plan showing location of electrical and telecommunication service entrances.
.3 Normal and Emergency power distribution details including a diagram showing distribution up to distribution centres on each floor.
.4 Floor plans indicating locations and size of major electrical equipment and distribution centres.
.5 Floor plans indicating locations and size of telecommunications rooms, closets and major conduits.
.6 Typical lighting concepts for the interior and exterior environments including roads and parking areas.
.7 Typical ceiling or floor distribution systems for lighting, power, and telecommunications.
.8 Fire alarm system concept.
.9 BCC integration concepts.

2.5.6 Furniture / Equipment

.1 Prepare a Furniture Recommendation Report based on the Functional Program and on parameters developed in conjunction with the RCMP. Report to include an examination of the following: Procurement process and requirements, Furniture type and layout, Power requirements, Finishes.
.2 Recommendations are to take into consideration the client's vision, functional requirements, proposed planning alternatives, space allocation and project budget.
.3 Prepare a Class 'C' cost estimate for the purchase of new furniture and equipment.
.4 Document scheduling requirements for the procurement of new furniture and equipment.

RS 3 DESIGN DEVELOPMENT

RS 3.1 INTENT

3.1.1 This stage will further develop the design option selected for refinement at the Schematic Design stage. 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. This design will be used as the basis for preparation of construction documents.

RS 3.2 SCOPE AND ACTIVITIES:

3.2.1 Obtain written approval from Departmental Representative to proceed to Design Development Stage,

3.2.2 Review, validate and update details of program requirements, and base building requirements with the RCMP,

3.2.3 Update Functional Program room data sheets as required,

3.2.4 Coordinate services as required for BCC with project Information Services, Security, Furniture and Equipment,

3.2.5 Develop the sustainable design strategy; provide a LEED or equivalent scorecard indicating which credits the design will or does meet.

3.2.6 If any alterations are required, analyse the impact on all project components, and resubmit for approval if required,

3.2.7 Expand and clarify the Schematic Design intent for each design discipline,

3.2.8 Present / submit design and materials for review and approval to committees, review groups and authorities having jurisdiction as identified in section Project Administration,

3.2.9 Provide and / or coordinate all information for all project disciplines,

3.2.10 Analyse the constructability of the project and advise on the construction phasing process and duration,

3.2.11 Undertake an update to budget (Class C), schedule and risk analysis and identify any conflicts that will need to be addressed with respect to scope, quality, schedule, cost,

3.2.12 Coordinate services with Departmental Representative,

3.2.13 Continue to review all applicable statutes, regulations, codes and by-laws in relation to the design of the project.

3.2.14 Confirm all aspects of the proposed Site design development.

RS 3.3 DELIVERABLES

3.3.1 Prepare and submit an integrated Stage Three Project Report, Design Development, for review and acceptance by the Departmental Representative. Revise as required by the Departmental Representative. Resubmit for acceptance. The report will update the Stage Two Report, Schematic (Concept) Design, consolidate the Scope and Activities identified above, and will continue to be utilized as the benchmark project control document to monitor progress of the project.

3.3.2 The Stage Three Project Report shall include (but not be limited to) the following aspects, in written narrative, graphic, model (traditional and / or computer generated), and photographic format.

3.3.3 Stage Three Report:

.1 Updated Functional Program including base building requirements and integration of BCC,

.2 Drawings and other media to communicate the entire site and building project for all disciplines showing all elements and services to detail necessary to make all design decisions and to substantially estimate the cost of the project,

.3 Provide a list and draft specification sections of all National Master Specification (NMS) sections to be used. Submit outline specifications for all systems and principle components and equipment. Provide in the outline specifications manufacturers' literature about principal equipment and system components proposed for use in the project,

.4 Integration of BCC components illustrated by the plans and specifications for Furniture / Equipment, including all required layout and location plans, supporting infrastructure and connectivity requirements.

.5 Finishes and colour schemes, including Furniture / Equipment,

.6 Site / building renderings, 3D visualization,

.7 Sustainable Development Strategies and Report,

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

.9 LEED equivalent scorecard indicating which LEED equivalent credits the design does or will meet;

.10 Natural Resources Canada EE4 energy simulation of the selected design option, including estimated annual energy cost as predicted by EE4 using current energy cost for the project location;

.11 Update to Risk Assessment Report,

.12 Fire Protection Engineers Report including requirements, strategies or interventions for protection of the building and its occupants,

.13 Outline Commissioning Plan,

.14 Outline Operation and Maintenance (O&M) Manual.

.15 Description of contract packaging and implementation plan,

.16 Preliminary construction schedule including long-term delivery items,

.17 Updated detailed schedule including deliverable requirements to be provided for BCC: Information Services, Security, Furniture and Equipment, to be integrated into base building,

.18 Updated Class 'C' Estimate including estimated annual cash flows,

.19 Update life cycle cost analysis;

.20 Update milestone project schedule, complete with summary of revisions and mitigation strategies (if significant change occurs).

.21 Project Log tracking all approved major decisions including those affecting changes to project scope, budget and schedule,

.22 Stage Three Project Report, Design Development consolidating all of the above,

RS 3.4 PRESENTATIONS

3.4.1 The Consultant Team shall deliver presentations for the Design Development stage, as outlined in the PA Submissions, Review, and Approval Process.

RS 3.5 DETAILS

3.5.1 Architectural

.1 Site plan showing the building and Infrastructure items including pedestrian, vehicular, parking, fire routes, security, delivery service access,

.2 Floor plans of each floor showing all accommodation required, including all necessary circulation areas, stairs, elevators, and ancillary spaces anticipated for service use. Indicate building grids, modules, and key dimensions. Include roof plans.

.3 Elevations of all exterior building facades showing all doors and windows accurately sized and projected from the floor plans and sections. Indicate clear floor and ceiling levels and any concealed roof levels.

.4 Cross-sections through the building(s) to show floor levels, room heights, inner corridor elevations.

.5 Detail Sections of walls or special design features requiring illustration and explanation of this stage, including fireproofing methods, physical, acoustical security.

.6 Reflected ceiling plans.

.7 Architectural, materials, millwork, finishing details and samples to determine choice of materials and finishes.

.8 Plans and typical details for Built-in Furniture.

.9 Details of integration of Information Services, Security, Furniture / Equipment with Built-in Furniture.

.10 Provide wall, floor and ceiling sections and details for all spaces requiring acoustic security. Include STC ratings for doors, transfer ducts and other assemblies to meet functional program and security requirements.

3.5.2 Civil

.1 Further refined site plans showing site services and building service connections referenced to proposed building outlines, site access roads, parking, fire routes and sidewalks, including existing and proposed grades and drainage improvements. Drawings shall contain locations of manholes (complete with invert elevations), valves, and fire hydrant locations. In addition, identify proposed pipe sizes and slopes, where applicable, and include pipe invert elevations at building foundation.

.2 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.

.3 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.

.4 Provide typical trench and related details, including profiles of below grade services.

.5 Indicate locations of and provide details of independent utility infrastructure and services such as underground tanks, vaults, wells and utility service pads

3.5.3 Structural / Seismic

.1 Provide detailed description of structural design concept to resist seismic loads and to address requirements for post disaster construction.
.2 Provide detailed description of structural design concept to resist progressive collapse caused by natural or manmade disasters
.3 Structural drawings indicating modifications or new structural systems, structural materials, cladding details, fireproofing methods and other significant or unusual details.
.4 Drawings shall indicate all design loads, e.g. dead and live loads on all plans with atypical loads marked.
.5 Indicate integration of Information Services and Security pathways in floors and relationships with building structure.

3.5.4 Mechanical

.1 For the selected option develop a minimum of:
.1. A baseline system and Two (2) HVAC systems options.
.2. Develop additional sub-systems options, which were not developed in the schematic/concept stage. This may include types of boilers, chillers, fans, cooling towers, humidification, and controls.
.3. Analyse and compare options using methods including internal Peer Review and select a recommended option.
.4. Develop the design in detail with the recommended option
.2 Site Plan showing service entrances for, domestic water supply, sanitary and storm drains and connections to utility services, including all key invert elevations.
.3 Drawings showing preliminary sizing of ventilation, cooling and heating systems showing locations, and all major equipment layouts in mechanical rooms.
.4 Drawings of plumbing system, showing routing and sizing of major lines and location of pumping and other equipment where required.
.5 Drawings of the fire protection systems showing major components.
.6 Provide written description of design concepts and all specific system components to provide service redundancy in support of business continuity
.7 Update the energy analysis and energy budget.
.8 Provide information of all internal and external energy loads in sufficient detail to determine the compatibility of the proposal with existing services, approved concept and energy budget.
.9 Analysis of selected equipment and plant with schematics and calculations sufficient to justify the economy of the selected systems.
.10 Describe the mechanical systems to be provided and the components of each system including mechanical ancillary devices needed to support emergency power systems.
.11 Describe the building systems control architecture. Provide preliminary Energy Management Control Services (EMCS) network architecture, mechanical control schematics, and sequence of operation of each building system.
.12 Explain what acoustical and sound control measures are to be included in the design.

3.5.5 Electrical

.1 For the selected option update the electrical design synopsis. Provide data on the total connected load, the maximum demand and diversity factors, and the sizing of the emergency load.
.2 Identify Utility requirements and indicate short circuit information at point of entry.

.3 Elaborate on proposed emergency power scheme and provide preliminary installation details for emergency generator installation(s).
.4 Indicate metering locations on distribution diagram.
.5 Provide typical lighting, power and telecommunication system details for all workspaces.
.6 Include lighting design and control schemes for typical lighting arrangements.
.7 Elaborate on exterior lighting scheme. Provide typical fixture concepts.
.8 Provide a fire alarm riser diagram.
.9 Submit detailed BCC integration concepts.
.10 Indicate security system major conduit requirements on floor plans.
.11 Provide typical security system details (conduit and boxes) that will be included on construction drawings.

3.5.6 Commissioning

.1 To be prepared by the Architect and Mechanical / Electrical Sub-Consultants, in coordination with the Commissioning Sub-Consultant:
.2 Define requirements for project records and how these records will be managed, updated, and submitted at the end of the project.
.3 Provide an outline of the proposed Commissioning procedures, protocols and schedule requirements.
.4 Prepare a list of Spare or specialty equipment, extra material and redundancies needed to operate and maintain this facility over its life expectancy.
.5 Assessment of:
.1. Staffing & skill requirements to operate and maintain the facility.
.2. The need for service contracts, i.e. elevators, water treatment, controls emergency generators, fire alarm.
.6 Prepare a preliminary O&M budget (Class C).
.7 The O&M budget will contain a detailed breakdown of various items with the assessment of the systems selection. For example, provide an order of magnitude for electrical, mechanical, or specialty equipment and systems maintenance and / or service contract costs.

3.5.7 Furniture / Equipment

.1 Provide Furniture / Equipment plans with optional layouts as developed with the BCC suppliers for operational systems consoles and furniture
.2 Prepare a comprehensive list for all rooms and building exterior.
.3 Preliminary Furniture Plans:
.1. The Consultant shall discuss with the Departmental Representative the anticipated method of furniture and equipment procurement to be utilized for this project in order to more clearly define the specific requirements under this section. The Consultant shall prepare preliminary furniture and equipment plans that include but are not limited to a generic furniture footprint, and, or specific furniture/equipment (including AV) systems.
.2. The Consultant must coordinate with the RCMP Departmental Representative for the definition of the furniture and equipment system(s) to be used or procured for the project in order to coordinate with the appropriate furniture suppliers the systems and component counts for the project.
.3. Collaborate with selected suppliers as identified by the Departmental Representative to determine impact on base building and fit-up requirements of up to a maximum of three (3) alternative furniture and

equipment systems and make design adjustments as required to accommodate selected systems.

.4. Illustrate preliminary layout of all furniture, furnishings and equipment pertaining to open and enclosed workstations / work settings, support space and special purpose space, including variations based on selection of alternate furniture and equipment systems.

.5. Illustrate preliminary location and identification of all major equipment including but not limited to network equipment and video displays.

.6. Illustrate sight lines for all workstations to multimedia displays in operational, training and collaborative spaces.

.7. Identify and illustrate preliminary electrical, telephone, data, voice and video infrastructure in support of selected systems layout / locations.

RS 4 CONSTRUCTION DOCUMENTS

RS 4.1 INTENT

4.1.1 The Consultant must obtain written authorization from the Departmental Representative before proceeding with Construction Documents.

.1 The objective of the Construction Document phase is to translate the design development documents into construction drawings and specifications to guide and direct the Contractor and Sub-Contractors in carrying out their work on the project.

.2 Prepare drawings and specifications setting forth in detail the requirements for the construction and final cost estimate for each tender package for the project.

.3 Construction documents shall be prepared in four phases as follows with progressive submissions for review and approval by the RCMP.

.4 33% indicates technical 33% completeness of all Construction documents,

.5 66% indicates substantial technical development of the project - well advanced architectural and engineering plans, elevations, sections, details, schedules and specifications,

.6 99% is the submission of complete Construction Documents ready for tender call,

.7 Final Submission incorporates all revisions required in the 99% version and is intended to provide the Departmental Representative with complete Construction documents ready for tender call.

.8 The Final Submission shall be in English.

RS 4.2 GENERAL

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

RS 4.3 SCOPE AND ACTIVITIES:

4.3.1 Obtain Departmental Representative's approval for Construction Documents submissions (33%, 66%, 99% and final),

4.3.2 Confirm format of drawings and specifications,

4.3.3 Provide full coordination of all disciplines between all tender packages,

4.3.4 Clarify special procedures,

4.3.5 Submit drawings and specifications at the required stages (33%, 66%, and 99%),

4.3.6 Include base building Information Services and Security pathways and service infrastructure at each stage,

4.3.7 Provide written response to each disciplines peer review comments and incorporate them into Construction Documents where required,

4.3.8 Advise as to the progress of cost estimates and submit updated cost estimates for each tender package as the project develops,

4.3.9 Update the project schedule including deliverable requirements to be provided for BCC: Information Services, Security to be integrated into base building,

4.3.10 Review and confirm the Class 'C' estimate with the 33% submission.

4.3.11 Prepare a Class 'B' estimate for submission with the 66% submission.

4.3.12 Prepare a final Class 'A' estimate with the 99% submission for each tender package including estimated annual cash flows during projected construction period,

4.3.13 Review and approve materials and construction processes and specifications to meet sustainable development objectives and commissioning,

4.3.14 Establish quality control process to be implemented during construction through sample mock-ups or model areas as part of Construction and Contract Administration stage.

4.3.15 For all disciplines, develop outline for project specific Operation and Maintenance Manuals for each building system,

4.3.16 In collaboration with all relevant disciplines; Authorities having Jurisdiction; and relevant Federal, Provincial, and Municipal codes, standards and legislative requirements for the project, refine, develop, and prepare:

- .1 Final code statement;
- .2 Final zoning data summary;
- .3 Final fire separations and life safety plans;
- .4 100% complete construction documents for submission to local authority for review. As during the previous design stages, the review of the construction documents by local authorities will also occur during the Tender Call, Bid Evaluation, and Construction Contract Award stage.
- .5 Sign and seal one (1) set of 100% complete construction documents for building permit application; and
- .6 Provide necessary follow-up regarding building permit application;

RS 4.4 DELIVERABLES

4.4.1 Deliverables shall occur in four stages, completeness of the project development shall reflect the stage of submission: 33%, 66%, 99% or 100%.

4.4.2 Separate tender packages

- .1 Separate early tender packages will be required by April 2018 for site civil works, grading, site drainage, utilities, roadways, parking lot construction, and site lighting, foundation and structure.
- .2 Consultant shall prepare multiple separate tender ready packages as required to allow for tendering of advanced work.
- .3 Consultant shall ensure all work tendered in advance of completion of construction documents for the main building is fully coordinated with the final construction documents.
- .4 Separate tender packages for each BCC component as defined in section PD 5.

4.4.3 The Consultant Team shall prepare and submit an integrated Stage Four Project Report, Construction Documents as well as the 100% construction documents (drawings and specifications) for review and approval by the Departmental Representative. Revise as required by the Departmental Representative. Resubmit for acceptance. The construction documents report will update the Design Development report, consolidate the Scope and Activities identified above, and will

continue to be utilized as the benchmark project control document to monitor progress of the project.

4.4.4 The Stage Four Project Report shall be provided in written narrative, graphic, model (traditional and / or computer generated), and photographic format.

4.4.5 Deliverables are similar at 33%, 66%, 99% stages; completeness of the project development shall reflect the stage of a submission.

4.4.6 33, 66, and 99% Submissions

- .1 Coordinate all disciplines within and between all tender packages including any scope changes that may be required to remain within budget.
- .2 Documented responses to RCMP review comments from previous submission.
- .3 Complete written peer reviews with responses to review comments and incorporate them into Construction Documents where required,
- .4 Complete specification and working drawings for all tender packages.
- .5 Complete Commissioning plan.
- .6 Outline Systems Operation Manual (SOM) detailing each building system.
- .7 Updated EE4 energy simulation including estimated annual energy cost as predicted by EE4 using current energy cost for the project location.
- .8 One copy of the complete colour schedules, including textures, sheens, colour chips and material samples.
- .9 One copy of support data, studies, calculations.
- .10 Updated Risk Analysis,
- .11 Updated project cost estimate
- .12 Updated Project Schedule.
- .13 Update Project Log tracking all approved major decisions including those affecting changes to project scope, budget and schedule.

4.4.7 Final Submission

- .1 This submission incorporates all revisions required by the review of the 99% submission. Provide the following for each tender package.
  - .1. Coordinate all disciplines between all tender packages including any scope changes that may be required to remain within budget.
  - .2. Complete set of originals of the working drawings for all tender packages in English.
  - .3. Complete sets of English original specifications.
  - .4. Class ‘A’ estimate.
  - .5. Complete Commissioning Plan.
  - .6. Update the Systems Operations Manual to reflect any changes from the 99% submission. Updated project schedule.
  - .7. Submit and obtain approval on plans and specifications required by Inspection Authorities before tender call.
  - .8. Update Project Log, tracking all approved major decisions including those affecting changes to project scope, budget and schedule.

RS 4.5 SUPPLEMENTARY SUBMISSION REQUIREMENTS

4.5.1 Building Operation and Manual (BOM)

- .1 Consultant Team shall develop the BOM for all disciplines based on the O&M information to allow detachment staff an overview of the building and operation and maintenance activates.
- .2 BOM to include diagrams, pictures and illustration of each system with step by step by instructions.
- .3 For each discipline, provide all design intents, narrative sequence of operation (philosophy).

.4 For architectural systems, summarize the type of building finishes and their locations.

.5 Provide emergency start-up / operations / shutdown and Business continuity (system redundancy) procedures, and seasonal switchover procedures.

.6 Provide reduced Single Line Diagrams of all systems. Include PMSS / MMS nomenclature for each piece of equipment on the drawings.

.7 Include simplified floor plans indicating zoning of HVAC systems.

4.5.2 Commissioning Specifications

.1 Use NMS for commissioning as the basis for the project specifications for commissioning. Prepare additional specifications for systems where NMS specifications do not exist. Complete design information required in the performance verification report forms.

.2 Specify detailed performance verification procedures and output, documents, scheduling and reporting requirements.

.3 Identify and include in specification all tests to be conducted at manufacturer's plants, on-site during construction, installation, commissioning on-site and during the operation phase.

.4 Develop a training package for Operation & Maintenance personnel and include in specification.

.5 Use NMS for the identification of equipment and inventory in conjunction with the PMSS / MMS.

.6 Provide PMSS / MMS coding and system nomenclature on tender documents within equipment schedules and on all single line diagrams.

.7 Obtain approval of equipment PMSS / MMS identification from the RCMP Commissioning Manager or designate.

4.5.3 Commissioning Submission Requirements

.8 Outline commissioning plans and specifications included with the 33% construction documents should include the following:

.1. Typical floor plans with general ductwork layouts and duct sizes
.2. Mechanical equipment room layouts and sections with all major systems
.3. Schematics of EMCS, system architecture, sequence of operation, wiring diagrams
.4. Riser diagrams
.5. System schematics
.6. Complete specifications including all sections
.7. Commissioning sequence plan
.8. Building management manual and training plan
.9. Updated O & M budget
.10. General plumbing and fixtures layouts

.9 The detailed commissioning specifications are to be submitted with the 66% construction documents stage and updated and resubmitted at each subsequent stage of the construction documents.

.10 The BOM and O&M Manual is to be submitted with the 66% construction documents, and is updated and resubmitted during subsequent stages of the construction documents.

.11 PMSS / MMS system and equipment codes are identified for each piece of mechanical and electrical equipment with the 66% construction documents. Completed PMSS / MMS numbering (with equipment unit counters) for all mechanical and electrical equipment are to be provided at the 99% stage. Submit a comprehensive Commissioning Plan for all systems.

.12 Submit a comprehensive system operator Training Plan.

.13 Final submission of BOM, O&M manual and System operator training plan documents to be English

4.5.4 Final Furniture and Equipment Plans:

.14 The Consultant shall prepare final furniture and equipment plans and specifications. Plans and information to include but are not limited to the following:

- .1 Final partition locations,
- .2 Final layout of all furniture, furnishings and equipment pertaining to open and enclosed workstations / work settings, support space and special purpose space, include critical dimensions as required,
- .3 Identification of end-user positions/functions at each open workstation, enclosed office or workstation setting,
- .4 Review of supplier / manufacturer component counts, fittings, and all accessories,
- .5 Final location and identification of all equipment, including but not limited to network equipment and video displays,
- .6 Review plans to confirm compliance with all Code requirements related to life safety, and accessibility
- .7 Electrical, telephone, data, voice and video infrastructure including but not limited to cable trays and wire ways in support of selected systems layout / locations.

.15 Based on approved colour scheme presented in Concept Design Stage prepare a Final finishes presentation board for all furniture requirements,

- .1. Prepare a report with written and graphic identification of all furniture finishes, including samples and specifications for all panels, work surfaces, seating, filing, and accessories and all freestanding furniture.

.16 Based on the final equipment and furniture layout plans, coordinate with the mechanical and electrical including telecommunications Sub-Consultants to incorporate M&E space and location requirements on the final equipment and furniture plans as well as to ensure the M&E drawings accurately reflect the furniture and equipment layout. For the Interior Design Sub-Consultant these include the following:

- .1. Lighting layout, and zoning
- .2. Task lighting systems and controls
- .3. Location of light switches,
- .4. Location of thermostats,
- .5. Fire hose cabinets location and space requirements,
- .6. Additional cooling / exhaust location requirements,
- .7. Personal environmental control unit locations if applicable (PEC).

4.5.5 Based on final equipment and furniture layout plans, coordinate preparation of telecommunications plans to identify the location and number of telephone, data and video outlets. The telecommunications plans are to clearly indicate position and locations of all occupants of the space.

4.5.6 Furniture / Equipment (BCC)

- .1 Furniture including but not limited to specialized operating consoles and equipment including audio visual system installations may form part of separate tender packages to be prepared by the Consultant or included in the main project.
- .2 Prepare plans and specifications at the 33%, 66%, 99% and Final submissions for all required tender packages.

.3 Prepare systems furniture and equipment systems contract documents drawings and specifications including the following:

.17 Location of acoustical screens complete with critical installation dimensions,

.18 Location of all panel supported or free standing work surfaces and related components for all work stations,

.19 List of all accessories and lighting components,

.20 Location of all accessories and lighting components to be supported from the panels, work surfaces or overhead bins; this to be identified on an interior elevation or isometric view of typical workstation types,

.21 Telephone, electrical and data source locations,

.22 List of screens complete with electrical harnesses and outlets,

.23 Legend indicating type, size, fabric(s) and electrical requirements.

.24 Location, size, mounting and connectivity requirements for all AV and specialized systems and equipment.

RS 4.6 PRESENTATIONS

4.6.1 The Consultant Team shall deliver presentations for the Construction Documents stage, as outlined in the PA Submissions, Review, and Approval Process.

RS 4.7 CONSTRUCTION DOCUMENT PRODUCTION IN-PROGRESS REVIEWS

4.7.1 Technical and Production Meetings (Project Delivery Coordination Meetings)

.1 Production of construction documents will be reviewed during the meetings arranged by the RCMP Departmental Representative and Consultant as required but at maximum intervals of two weeks.

.2 Representatives from the RCMP support staff will be present as arranged by the RCMP Departmental Representative.

.3 The Consultant shall

.1. Ensure that the Consultant's staff and the sub-consultant representatives attend the technical and production meetings as required.

.2. Arrange for all necessary data, progress prints.

.3. Prepare minutes of the meetings and distribute copies to all participants.

4.7.2 Progress Review

.1 As work progresses on construction drawings, submit drawings, schedules, details, specifications based on the NMS, pertinent design data, updated Cost Plan, updated Project Schedule, updated Commissioning plan, and updated outline O&M manuals as required.

.25

RS 5 TENDER CALL, BID EVALUATION & CONSTRUCTION CONTRACT AWARD

RS 5.1 INTENT

5.1.1 Provide technical support and documentation to the Departmental Representative to support the Contract Authority and Construction Manager as required to issue and execute the tender calls, evaluate bids and award contracts. The construction will be delivered through a Construction Manager.

RS 5.2 SCOPE AND ACTIVITIES:

5.2.1 Coordinate all activities with the Construction Manager,

5.2.2 Provide technical documentation in the form of plans and specifications to the Departmental Representative as prescribed.

5.2.3 Construction Manager will provide and issue the general conditions of the contract and specific tender requirements to the bidders.

5.2.4 Consultant and representatives of each sub-consultant discipline to attend bidders briefing meeting(s),

5.2.5 Prepare addenda based on questions arising in such meetings for issue by the Construction Manager,

5.2.6 Provide the Departmental Representative, with all information required by Bidders to fully interpret the Construction Documents.

5.2.7 Make recommendations for issue of addenda as a result of informal inquiries as required.

5.2.8 Provide a summary of inquiries at the conclusion of the tender period for project records,

5.2.9 Assist in tender evaluation by providing advice on the following:

- .1 The completeness and compliance with tender requirements of tender submissions in all respects.
- .2 The effect of alternatives and qualifications, which may have been included in the tender.
- .3 Evaluation and explanation of variations of the tender cost which exceed 10% of the pre tender estimate.
- .4 The bidders' capability to undertake the full scope of work.

5.2.10 If the Construction Manager must re-tender the project, or any specific tender package or furniture and equipment procurement package for reasons other than cost overruns, provide proposals for additional services as required to the RCMP Departmental Representative to revise the scope of the tendered work,

5.2.11 If tenders exceed the pretender estimate by 10% or more, revise and amend for re-tender, at no additional cost, the construction documents to bring the cost of the work within the limits stipulated, as per the terms and conditions of the contract,

5.2.12 Examine and report on any cost and schedule impact created by the issue of tender / contract addenda.

5.2.13 Analyze, revise, and resubmit requests from the municipal building department with respect to the building permit application;

5.2.14 Follow-up with the Municipal Official the status of the building permit application.

RS 5.3 DELIVERABLES

5.3.1 Electronic copies of drawings and specifications,

5.3.2 Addenda as required,

5.3.3 Changes to the documents, if re-tendering is necessary,

5.3.4 Updated cost estimate and schedule,

5.3.5 Submit to the Contract Authority and Construction Manager, in English, three (3) signed and sealed and one (1) electronic copy of the complete tender documents with all incorporated addenda for all tender packages.

5.3.6 Prepare an integrated Stage Five Project Report, Tender Call, Bid Evaluations & Construction Contract Awards, which consolidates, and reports on the Scope and Activities identified above for review and acceptance by the Departmental Representative. Revise as required by the Departmental Representative. Resubmit for acceptance.

RS 6 CONSTRUCTION AND CONTRACT ADMINISTRATION

RS 6.1 INTENT

6.1.1 Implement the project in compliance with the Contract Documents, and direct and monitor all necessary or requested changes to the scope of work during construction.

RS 6.2 SCOPE AND ACTIVITIES:

6.2.1 Coordinate all activities with the Departmental Representative and Construction Manager,

6.2.2 During the implementation of the project, lead activities, in consultation with the RCMP Departmental Representative's behalf to the extent provided in this document,

6.2.3 Carry out the review of the work at intervals appropriate to determine if the work is in conformity with the Contract Documents,

6.2.4 Keep the RCMP Departmental Representative informed of the progress and quality of the work and report any defects or deficiencies in the work observed during the course of the site review,

6.2.5 Ensure compliance with Commissioning Plan, update plan as necessary,

6.2.6 Determine the amounts owing to the Contractor based on the progress of the work, and certify payments to the Contractor,

6.2.7 Act as interpreter of the requirements of the contract documents,

6.2.8 Provide cost advice during construction,

6.2.9 Advise the RCMP Departmental Representative of all potential changes to scope for the duration of the implementation,

6.2.10 Review the Contractor's submittals,

6.2.11 Prepare and justify change orders for issue by the Contract authority ,

6.2.12 Indicate any changes or material / equipment substitutions on Record Documents,

6.2.13 During the twelve (12) month warranty period, investigate all defects and alleged defects and issue instructions to the Contractor,

6.2.14 Prepare and post Systems Operating Instructions for BOM,

6.2.15 Finalize Systems Operations Manual and O&M Manual to 100% status, reflecting as-commissioned operation of all building systems. Submit four (4) copies in English, and one (1) in electronic format,

6.2.16 Conduct a final warranty review.

6.2.17 Confirm:

- .1 Building permit issued;
- .2 Notice of project with the Workplace Compensation Board (WCB);
- .3 Relevant inspection agencies notified;
- .4 Negotiate / finalize occupancy permit with authorities having jurisdiction;
- .5 Contractor to submit and pay for occupancy permit; fees for permit to be handled as a disbursement

RS 6.3 DELIVERABLES

6.3.1 Written reports from site visits including persons involved,

6.3.2 Written reports on the progress of the work and the cost of the project at the end of each month with progress claims,

6.3.3 Additional detail drawings when required to clarify, interpret or supplement the Construction Documents,

6.3.4 Post contract drawings,

6.3.5 Interim or Final certificates,

6.3.6 Debrief of Commissioning activities outlining the commissioning process, major activities, and lessons learned from this project,

6.3.7 Finalize the Systems Operation Manual and O&M Manual to reflect as-commissioned operation and maintenance of each building system,

6.3.8 Finalize the Building Operation and Maintenance Manual to reflect as-commissioned operation and maintenance of each building system,

6.3.9 As-built records and As-Built specifications including sub set pathways and service infrastructure locations for BCC: Information Services and Security,

6.3.10 Warranty deficiency list,

6.3.11 Update Project Log tracking all approved major decisions including those affecting changes to project scope, budget and schedule,

6.3.12 Report on Final Warranty Review,

6.3.13 Prepare an integrated Stage Six Project Report, Construction and Contract Administration, which consolidates and reports on the Scope and Activities identified above for review and approval by the Departmental Representative. Revise as required by the Departmental Representative. Resubmit for acceptance.

RS 6.4 DETAILS

6.4.1 Construction Meetings

- .1 Immediately after contract award, arrange a briefing meeting with the Construction Manager, and the RCMP Departmental Representative.
- .2 Prepare minutes of the meeting and distribute copies to all participants and to other persons agreed upon with the Departmental Representative.
- .3 In consultation with the Construction Manager and the RCMP Departmental Representative, call job meetings as frequently as required, commencing with the construction-briefing meeting.
- .4 Prepare minutes of the meetings and distribute copies to all participants.

6.4.2 Project Schedule

- .1 As soon as possible after contract award, obtain Project Schedule from the Construction Manager. Schedule to include;
  - .1 All construction activities
  - .2 Schedule of delivery requirements for BCC Information Services, Security to be integrated into base building
  - .3 All related works
  - .4 Detailed commissioning component shown separately,
- .2 Review the construction schedule, identify conflicts and make recommendations on options to reduce timeline where possible.
- .3 Monitor the approved construction schedule, take necessary steps to ensure that the schedule is maintained and submit a detailed report to the RCMP Departmental Representatives concerning any delays.
- .4 Keep accurate records of causes of delays.
- .5 Make every effort to assist the Contractor(s) to avoid delays.
- .6 Ensure the Commissioning Schedule is updated at the start of the Commissioning Phase of the project. Routinely update this schedule throughout the commissioning of the work.

6.4.3 Time Extensions

- .1 Only the Contract authority may authorize any request for Time Extensions. Authorization must be issued in writing.

6.4.4 Cost Breakdown

.1 Obtain from the Contractor(s) detail cost breakdown on forms approved by the RCMP Departmental Representative and submit to the RCMP Departmental Representative, with Progress Claims.

6.4.5 Labour Requirements

.1 The Contractor(s) is/are bound by the Contract to maintain competent and suitable workmen on the project and to comply with the Canada Department of Labour - Labour Conditions.

.2 Inform the RCMP Departmental Representative, of any labour situations that appear to require corrective action.

.3 The Consultant shall ensure that a copy of the Labour Conditions for the Contract is posted in a conspicuous place on-site.

6.4.6 Bylaw Compliance

.1 Ensure that construction complies with applicable bylaws and regulations.

6.4.7 Construction Safety

.1 Construction safety is the responsibility of the Constructor.

.2 Monitor construction safety programs and practices on site and advise the Departmental Representative of issues of non-compliance.

.3 At minimum compliance with safety legislation and regulations from the following are mandatory:

.1 All construction projects that are occupied by federal employees during construction are subject to the Canada Occupational Safety and Health Act and Regulations as administered by Health Canada.

.2 Fire safety provisions during construction must comply with Federal regulations.

.3 In addition to the above, the Contractor(s) must comply with the provincial and municipal safety laws and regulations, and with any instructions issued by the officers of these authorities having jurisdiction relating to construction safety.

.4 Ensure the Contractor(s) is/are mandated to provide all required coordination, isolation, protection and reinstatement of the fire protection and suppression systems throughout construction.

.5 Ensure that the Contractor(s) adhere(s) to the National Building Code (current edition) for safety measures at construction and demolition sites and National Fire Code (current edition) for fire safety at construction and demolition sites and Canada Labour Code part 2.

6.4.8 Site Visits

.1 Provide construction review services.

.2 Ensure compliance with contract documents.

.3 Provide services of qualified personnel who are fully knowledgeable with technical and administrative requirements of project.

.4 Establish a written understanding with Contractor(s) as to what stages or aspect of the work are to be inspected prior to being covered up.

.5 Assess quality of work and identify in writing to the Contractor(s) and the RCMP Departmental Representative, all defects and deficiencies observed at time of such inspections.

.6 Inspect materials and prefabricated assemblies and components at their source or assembly plant, as necessary for the progress of the project.

.7 Any directions, clarifications or deficiency list shall be issued in writing to the Contract authority and the RCMP Departmental Representative.

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

6.4.9 Progress Reports

.1 Report to the Contract authority and the Departmental representative regularly on the progress of the work. Submit monthly reports.

6.4.10 Work Measurement

.1 If work is based on unit prices, measure and record the quantities for verification of monthly progress claims and the Final Certificate of Measurement.

.2 When Contemplated Change Notice is to be issued based on Unit Prices, keep accurate account of the work. Record dimensions and quantities.

6.4.11 Detail Drawings

.1 Provide for the Contract authority information, any additional detail drawings as and when required to properly clarify or interpret the contract documents.

6.4.12 Shop Drawings

.1 Selected shop drawings will require review by the RCMP. Prepare a listing of all required shop drawings for identification of submissions requiring review by RCMP. Shop drawings requiring RCMP approval shall not be returned to the Contractor until review has been completed.

.2 On completion of project, forward one (1) copy of reviewed shop drawings to the RCMP. Ensure that shop drawings include the project number and are recorded in sequence.

.3 Verify the number of copies of shop drawings required. Consider additional copies for RCMP review.

.4 Shop drawings shall be stamped: "Checked and Certified Correct for Construction" by the Contractor(s) and stamped: "reviewed" by the Consultant before return to the Contractor(s).

.5 Expedite the processing of Shop Drawings.

.6 All equipment must be CSA approved, or CSA equivalent. In the case of equivalency, provide letters of approval for use in Canada.

6.4.13 Inspection and Testing

.1 Provide the Departmental Representative with recommended list of tests to be undertaken, including on-site and factory testing.

.2 Ensure all testing is detailed within Commissioning Plan.

.3 When contract is awarded, assist the Departmental Representative and the Contractor in briefing testing firm on required services, distribution of reports, communication lines.

.4 Attend acoustic tests conducted by third party.

.5 Witness all factory and on-site testing, including testing during off-hours.

.6 Review all test reports and take necessary action with the Contractor(s) when work fails to comply with contract.

.7 Immediately notify the Departmental Representative if tests fail to meet project requirements and when corrective work will affect schedule.

.8 Assist the Departmental Representative, in evaluating testing firm's invoices for services performed.

.9 Assist the Departmental Representative in approving all Contractor’s sample mock-ups or model areas that will be used to establish benchmarks for acceptable construction standards.

.10 The Contractor will be required to obtain approvals before proceeding with construction of each sample mock-up and model area.

.11 Coordinate with the RCMP Security subject matter experts who will inspect and ensure acceptability of all aspects of security during construction.

6.4.14 Training

.1 Prior to tender, provide the RCMP Departmental Representative, with recommended list of training to be undertaken.
.2 Ensure all training is detailed within the Commissioning Plan.

6.4.15 Construction Changes

.1 The Consultant does not have authority to change the work or the price of any Contract(s).
.2 Changes, which affect cost or design concept, must be approved by the Contract Authority.
.3 Upon RCMP approval, obtain quotations from the Contractor(s) in detail. Review prices and forward recommendations to the Departmental Representative promptly.
.4 The Contract Authority will issue Consultant-prepared Change Orders to the Contractor(s), with copy to the Departmental Representative and the Consultant.
.5 All changes, including those not affecting the cost of the project, must be covered by Change Orders.

6.4.16 Construction Manager Progress Claims

.1 Each month the Contractor(s) submits a progress claim for work and materials as required in the Construction Contract(s).
.2 The claims are made by completing the following forms where applicable:
.1. Request for Progress Payment,
.2. Cost Breakdown for Fixed Price Contract,
.3. Copy of good standing with WSIB,
.4. Statutory Declaration Progress Claim.
.3 Review and sign designated forms and promptly forward claims to the RCMP Departmental Representative for processing.
.4 Submit with each progress claim:
.1. Updated schedule of the progress of the work.
.2. Photographs of the progress of the work.

6.4.17 Materials On-Site

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

6.4.18 Acceptance Board

.1 Inform the Departmental Representative when satisfied that the project is substantially completed.
.2 The Consultant shall ensure that his representative, sub-consultant representative, Contractor(s) and major sub-trades representatives shall form part of the Project Acceptance Board and attend all meetings as organized by the RCMP Departmental Representative.

6.4.19 Interim Inspection

.1 The Acceptance Board shall inspect the work and list all unacceptable and incomplete work on a designated form.

.2 The Board shall accept the project from the Contractor(s) subject to the deficiencies and uncompleted work listed and priced.

.3 The Contractor(s) will be required to provide a work plan of actions and schedule to correct all deficiencies.

.4 The Consultant shall coordinate with the RCMP Departmental Representative to monitor, inspect and report on the progress of deficiencies corrections.

6.4.20 Interim Certificates

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

.1. Interim Certificate of Completion,

.2. Cost Breakdown for Fixed Price Contract,

.3. Cost Breakdown for Unit or Combined Price Contract,

.4. Inspection and Acceptance,

.5. Statutory Declaration Interim Certificate of Completion,

.6. Workplace Safety and Insurance Board Certificate.

.2 Verify that all items are correctly stated and ensure that completed documents and any supporting documents are furnished to the Departmental Representative for processing.

6.4.21 Furniture / Equipment Delivery and Installation

.1 Delivery and installation of Furniture / Equipment to be coordinated by Consultant in consultation with the RCMP representative and suppliers.

.2 Final delivery dates to be confirmed with the RCMP.

.3 Consultant to be on-site during the delivery of Furniture / Equipment identified for each floor of the project to confirm delivery of appropriate product.

.4 Consultant to confirm that all quantities of all Furniture / Equipment furnishings and components have been delivered. Consultant to prepare deficiency list of all damaged or missing items.

.5 Consultant to oversee installation of Furniture / Equipment by supplier.

.6 Consultant to provide deficiency list to the RCMP Departmental Representative for each floor of Furniture / Equipment delivered.

6.4.22 Building Occupation

.1 The RCMP may occupy the building after the date of acceptance of the building by the Acceptance Board. The acceptance date is normally that of the Interim Certificate issued to the Contractor(s).

6.4.23 Building Operation and Maintenance Manual

.1 Develop and coordinate a building operation and maintenance manual (BOM). Based on the O&M manual, develop a building maintenance guide with instructions on how to operate, service, maintain all building systems. BOM is to be written for your use of detachment staff as service personnel are not readily available to provide facility maintenance.

6.4.24 Operation and Maintenance Data Manual

.1 Operation and Maintenance Data Manual:

.2 One Electronic of all volumes and Four (4) hard copy sets of each volume produced by Contractor(s) in accordance with project specification and verified for completeness, relevance and format by the Architect, Mechanic and Electrical Engineer and submitted to the RCMP Departmental Representative prior to interim acceptance or actual start of operation and instruction period, whichever occurs sooner.

.3 Prior to submission to the RCMP Departmental Representative, provide written comment in detail indicating the acceptability of all manuals.

.4 The Contractor(s) shall retain one (1) copy of each volume for his record and use during the instruction period.

6.4.25 Instruction of Operating Personnel

.1 Make arrangements and ensure that RCMP designated operating personnel are properly instructed on the operation of all services and systems using the final manuals as reference.

.2 Consultant to provide training sessions, as required, on the subject of design intent and systems operations. Utilize Systems operations manual for training sessions.

6.4.26 Keys

.1 Ensure that all keys and safe combinations are delivered to the RCMP as directed by the RCMP Departmental Representative.

.2 Ensure that the Contractor(s) adhere(s) to House of Commons Restricted Key Control System dated December 13, 1999.

6.4.27 Final Inspection

.1 Inform Contract Authority when satisfied that all work under the contract has been completed, including the deficiency items. Inspection and Acceptance as a result of the Interim Inspection.

.2 The RCMP reconvenes the Acceptance Board, which makes a final inspection of the project. If everything is satisfactory, the Board makes final acceptance of the project from the Contractor.

6.4.28 Final Certificate

.1 The final payment requires completion and signing, by the parties concerned, of the following documents:

.1. Final Certificate of Completion,
.2. Occupancy Permit
.3. Cost Breakdown
.4. Inspection and Acceptance,
.5. Statutory Declaration Final Certificate of Completion,
.6. Workmen's Compensation Clearance Certificate,
.7. Electrical Inspection Certificate.

.2 Verify that all items are correctly stated and ensure that completed documents and any supporting documents are furnished to the RCMP Departmental Representative for processing.

6.4.29 Take-over

.1 The official take-over of the project or parts of the project, from the Contractor is established by the RCMP Project Team which includes the Consultant and the RCMP. The date of Interim Certificate of Completion signifies commencement of the 12-month warranty period for work completed on the date of each certificate in accordance with the General Conditions of the Contract.

.2 Provide the RCMP Departmental Representative with original copy of Contractor's warranties for all materials and work covered by an extended warranty or guarantee, according to the conditions of the specifications. Verify their completeness and extent of coverage.

6.4.30 As-Built and Record Drawings and As-Built Specifications (for each Tender Package and a Comprehensive Consolidated Final Package).

.1 Following the take-over, obtain as-built marked-up hard copy from the Contractor(s).

.2 Show significant deviations in construction from the original Contract drawings, including changes shown on Post-Contract Drawings, changes resulting from Change Orders or from On-Site Instructions.

.3 Verify at each progress payment that the Contractor(s) has/have accurately recorded information on the site as-built set of construction documents.

.4 Indicate PMSS / MMS numbers for each piece of mechanical and electrical equipment on each drawing.

.5 Check and verify all As-Built records for completeness and accuracy and submit to the RCMP Departmental.

.6 Produce Record Drawings by incorporating final As-Built-information into project drawings. Delivered electronically in both PDF and DWG format

.7 Update the specification to reflect As-Built-information.

.8 Submit a comprehensive consolidated final package of Record Drawings in and As-Built Specifications in number and format required by the Contract within twelve (12) weeks of the Final Certificate.

.9 Provide a complete set of final shop drawings in hard copy and electronic format.

.10 Produce a building maintenance guide covering all building systems. Based on the O&M manuals information the maintenance guide provide instruction and illustrations on how to operate, service, maintain all building systems. Guide is to be written for your use of detachment staff as service personnel are not readily available to provide facility maintenance.

RS 7 COMMISSIONING

RS 7.1 COMMISSIONING OBJECTIVES

7.1.1 The objectives of commissioning are:

.1 To document the design intent of the overall project and the proposed building systems and components and to verify and demonstrate that all functional and operational requirements have been correctly interpreted in the Design solution.

.2 Develop a Building Operation and Maintenance (BOM) manual

.3 To document the operational, maintenance and building management requirements

.4 To minimize O&M costs through the careful selection of design solutions (for economy, reliability, durability, accessibility, maintainability), construction materials, installation practices, performance verification procedures

.5 To verify that the selected design solutions and the resultant built works protect the safety, health, welfare and comfort of occupants and O&M personnel.

.6 To define responsibility areas for meeting these operational requirements in the contract documents and include a process to demonstrate compliance.

.7 To demonstrate that the RCMP's requirements are met during the project implementation and commissioning phases of the project and to support quality management of construction and installation through verification of building components, systems and environments.

.8 To ensure that the commissioning process is implemented and documented according to the approved Commissioning Plan and in accordance with the Commissioning Schedule.

.9 To verify and demonstrate that all systems operate consistently at peak efficiencies, under all normal load conditions, and within the specified energy budget.

.10 To provide comprehensive documentation of the operational, maintenance and building management
.11 To implement a comprehensive training program.
.12 To transfer the completed works to qualified facility operators verifying that the building systems operate consistently at peak efficiencies, under all normal load conditions, and within the specified energy budget.

RS 7.2 GENERAL DESCRIPTION OF COMMISSIONING

7.2.1 The RCMP utilizes PSPC commissioning practices. All commissioning shall be in accordance with the *PSPC Commissioning Manual (CP.1)*, current edition, and all associated *PSPC Commissioning Guidelines* but suited to the specific requirements of the project. These documents consist of:

.1 PSPC Commissioning Manual (CP.1)
.2 CP.2: Commissioning Glossary (forms Appendix B of CP.1)
.3 CP.3: Guide to development of the Commissioning Plan
.4 CP.4: Guide to the development of Building Management Manuals
.5 CP.5: Guide to preparation of Training Plans
.6 CP.7: Commissioning for Facilities Management and Operation
.7 CP.8: Guide to the preparation of Commissioning Reports
.8 CP.9: Guide to the development and use of Installation/Start-up Check Lists
.9 CP.10: Guide to the development and use of Report Forms and Schematics
.10 CP.11: Guide to the preparation of Commissioning Briefs
.11 CP.12: Guide to the development and use of Commissioning Specifications
.12 CP.13: Facility Maintenance Policy, Guidelines and Requirements

7.2.2 The PSPC Commissioning Manual (CP.1) and all associated PSPC Commissioning Guidelines are available online.

7.2.3 Commissioning includes architectural, structural, vertical transportation systems, interior and landscape systems, as well as the usual mechanical, electrical and life safety systems.

7.2.4 The Designer must deliver concise and comprehensive information and reports on commissioning to the RCMP.

7.2.5 An enhanced commissioning program is required and will apply to all construction phases, base building and fit up work.

RS 7.3 ROLES AND RESPONSIBILITIES:

7.3.1 The RCMP Departmental Representative:

.1 Has overall responsibility for managing the project and delivering the project to the Project Leader on time and on budget. Upon completion, the Departmental Representative hands the facility over to the Project Leader.

7.3.2 The Consultant shall:

.1 Establish Design Criteria, functional and operational requirements, if not already established in the RFP or Project Brief,
.2 Establish a Design Energy Budget and, if necessary, revise and update with each submission,
.3 Prepare a preliminary O&M budget and revise and update with each submission, containing detailed breakdowns of various items such as estimated electrical, mechanical, or specialty equipment annual energy consumption and systems maintenance, operation and/or service contract costs.

.4 Prepare a preliminary Commissioning Budget and revise and update with each submission.
.5 Prepare a preliminary Commissioning Plan
.6 Prepare commissioning specifications for components, equipment, systems and integrated systems and incorporate same into the construction specifications,
.7 Prepare a complete maintenance management documentation, to be sufficiently complete for use during training, and to include:
  .1. An explanation of the purpose of the facilities,
  .2. An outline of the design intent of all systems
  .3. A narrative description of the project's conceptual framework,
  .4. Documentation of all design decisions made throughout the project,
  .5. A description of each building system; including architectural, structural, mechanical, electrical, civil, fire protection, acoustical and other building as well as site systems.
  .6. All other relevant documentation
.8 Plan the commissioning and performance verification (PV) activities, processes and their output, including development of project-specific:
  .1. Installation / Start-up Check Lists
  .2. Product Information (PI) Report Forms and Performance Verification (PV) Report Forms, and
  .3. Design data to PI and PV report forms
.9 Prepare a detailed Training plan
.10 Incorporate PSPC MMS identification codes to all components, equipment and systems into all working documents;
.11 Review the Contractor's detailed commissioning schedule for components, equipment, systems, and integrated systems. (PV tests will be performed by the Contractor).
.12 Identify Contractor and subcontractor commissioning, PV and testing responsibilities,
.13 Review shop drawings and product data and accompanying Product Information (PI) as completed by the Contractor,
.14 Monitor commissioning activities, provide quality control reports to the RCMP throughout the construction, commissioning and operational phases of the work, including:
  .1 Inspection and verification of as installed components, sub system and systems on a regular basis during construction
  .2 Witnessing tests,
  .3 Reviewing and verifying testing, adjusting and balancing (TAB) reports,
  .4 Reviewing and verifying Performance Verification (PV) Reports
  .5 Witnessing and certifying systems and integrated systems tests. Any test that cannot be commissioned due to design errors or omission must to be redesigned and re-commissioned.
.15 Participate in the Training Plan by providing training on design philosophy, design intent and systems designs,
.16 Witness and certify deferred tests, commissioning activities, PV, review and accept reports,
.17 Identify and verify the rectification of all outstanding deficiencies,
.18 Assist in the resolution of all issues relating to commissioning,
.19 Prepare "as-built" documentation (plans and specifications) as described elsewhere in the RFP or Project Brief,

.20 Assist in fine-tuning of systems and equipment as required during the warranty period,
.21 Assist in systems checks and environmental checks during the warranty period,
.22 Participate in warranty inspections and production of warranty inspection reports and address all warranty issues that may arise,
.23 Ensure that the final product meets the Design Criteria, functional and operational requirements, the project objectives and all requirements of the RFP and Project Brief,
.24 Develop BOM
.25 Recommend acceptance of the completed project,
.26 Assist the RCMP Departmental Representative in the preparation of a debriefing (Evaluation) report. To include, but not necessarily be limited to:
.1. A building evaluation summary with recommendations,
.2. Lessons learned from the project.

7.3.3 Consultant's Commissioning Coordinator:
.1 To assist in fulfilling a fully integrated and comprehensive commissioning program, the Consultant shall appoint a full-time commissioning coordinator with proven expertise in implementing commissioning programs, and who shall be responsible for detailed coordination of commissioning and provide direction for all matter relating to commissioning as described herein.

RS 7.4 OCCUPANCY REQUIREMENTS

7.4.1 Identify facility management requirements, including move-in procedures; staffing; signage; and safety and accessibility for persons with disabilities.

7.4.2 RCMP occupancy requirements include consideration of the need for and implications of:
.1 Early, late and/or phased completion, take-over, acceptance and occupancy, including the effects upon the User's present accommodation (such as early de-commissioning, need for extension),
.2 Requirements for initial, interim and substantial occupancy including, for reasons of health and safety, full commissioning of all life safety systems. It may also include some form of "interim commissioning" of all non-life safety systems,
.3 Overlapping of construction, commissioning and initial occupancy. This requires consideration of the effects of partial commissioning, delay of commissioning activities, the effects on insurance, warranties, certification, repetition of commissioning activities after full occupancy, and/or completion of fit-up contracts,
.4 Post-occupancy commissioning activities during Operation, which will often be necessary for certain systems and equipment under these circumstances.

RS 7.5 LIFE CYCLE COSTING CRITERIA

7.5.1 When developing life cycle cost analyses for each option, use the following criteria:
.1 20 years to next re-fit,
.2 40 Year investment horizon,
.3 Costs of utilities (e.g. hot water heating, chilled water, electricity), fuel consumption, potable water and sewage),
.4 Reliability, durability, operability, maintainability, accessibility and serviceability,

.5 Systems selection and staffing in response to annual operating cost criteria.

RS 7.6 TRAINING

7.6.1 In consultation with the RCMP prepare a comprehensive training plan for the training of the Facility Management personnel, User (where deemed necessary) and operations and maintenance staff.

7.6.2 Training shall be in English.

7.6.3 The training plan shall enable O&M personnel to identify repair and maintenance needs that might otherwise go undetected for long periods with possibly serious consequences.

7.6.4 Training shall enhance monitoring and diagnostic capabilities and result in more efficient, cost-effective operation of the facility.

7.6.5 The training plan shall be in accordance with the requirements of CP.5 Guide to preparation of TRAINING PLANS. Training plans shall be reviewed, revised, updated and resubmitted as required.

7.6.6 Training must clearly relay:

.1 A clear understanding of the intent of the design,

.2 All limitations of the systems,

.3 Reasons for the choice of systems.

7.6.7 Coordinate the dates of all training sessions with the Departmental Representative. Update the training plan as required reflecting the project schedule. The Departmental Representative will organize the location

7.6.8 The training plan shall recognize both short-term and long-term requirements.

7.6.9 Upon completion, prepare a summary of the training sessions, indicating dates, subject matter, all training personnel and all trainees present and submit to the Departmental Representative.

RS 7.7 CORRECTION OF DEFICIENCIES

7.7.1 The Consultant, in consultation with the RCMP Department Representative, shall:

.1 Instruct the contractor to correct all the deficiencies identified and recorded during the performance verification,

.2 Provide solutions during the PV process with respect to the variances from the design parameters,

.3 Adjust or alter the systems to achieve the design parameters. This shall include re-testing,

.4 Immediately notify the Departmental Representative when tests fail to meet project requirements and when corrective work and re-tests affect construction and completion schedule,

.5 Report in writing to the Departmental Representative indicating compliance or anomalies regarding witnessed events. The Consultant is to investigate and recommend in writing any corrective actions to be taken to facilitate compliance with design intent and design criteria.

RS 7.8 FACILITY MAINTENANCE POLICY, GUIDELINES AND REQUIREMENTS

7.8.1 For full details, the Consultant shall refer to CP.13: Facility Maintenance Policy, Guidelines and Requirements.

RS 7.9 ACCEPTANCE OF THE PROJECT

7.9.1 The project will be accepted and the Interim Certificate of Completion will be issued

only after:

.1 Successful completion of all integrated systems tests, life safety support systems tests and after all other requirements of the authority having jurisdiction are satisfied,

.2 All test certificates; commissioning reports and commissioning documentation have been approved and accepted by the Departmental Representative.

RS 7.10 COMMISSIONING DOCUMENTATION

7.10.1 General

.1 Commissioning documentation is a complete set of data and information fully describing the completed project as a built, finished, functional and operational facility and presented in a form that can be maintained, updated and used over the life of the building.

.2 In preparing project-specific commissioning documentation, use all existing generic commissioning documentation to the maximum extent possible. However, the Consultant retains over-riding responsibility for the content of all project-specific commissioning documentation and for editing, amending and supplementing as required and as is appropriate for the project.

.3 Produce in accordance with the requirements of the *PSPC Commissioning Manual (CP.1)* in consultation with the RCMP as appropriate.

.4 Comply with all requirements contained in the RFP relating to electronic production of commissioning documentation.

7.10.2 Details

.1 Commissioning documentation shall include:

.2 The Commissioning Plan, the master planning document for all commissioning activities and deliverables, revised, refined, updated and reviewed at each stage of design development and re-submitted for review by the Commissioning Manager. Use the *PSPC Model Commissioning Plan (see CP.3)* as a reference model.

.3 The Building Management Manual, containing all documentation for the project and providing a complete "paper trail" relating to project delivery. Responsibilities for development and timing of delivery are described in *CP.4: Guide to the development of Building Management Manuals*.

.2 Commissioning specifications.

.4 For details of requirements, refer to CP.12 - Guide to the development and Use of Commissioning Specifications

.3 Commissioning Schedule

.5 The Commissioning Schedule is developed by the Contractor, outlining the performance testing program in an orderly sequence acceptable to the Commissioning Manager and the Consultant, the planned dates for submission of commissioning documentation. The Commissioning Schedule is a sub element to the construction schedule and is to be updated as required.

.4 Training Plans. Refer to *CP.5 Guide to the preparation of Training Plans*. For more details refer to relevant paragraph below.

.5 Installation Check Lists for use during pre-start-up and pre-commissioning inspections. Refer to *CP.9 Guide to the development of Installation/Start-up Check Lists*.

.6 Product Information (PI) report forms to document all details of equipment, components and systems. Refer to *CP.10 Guide to the development of Report Forms and Schematics*.

.7 Performance Verification (PV) report forms and include thereon all design criteria, design intents and other relevant design information. Refer to CP.10 Guide to the development of Report Forms and Schematics.

.8 MMS requirements, Apply to all drawings before Tender call. Refer to *CP.13 Facility Maintenance Policy, Guidelines and Requirements*. "As-built" drawings and specifications: to be completed prior to, and available for, pre-start-up inspections and to include:

.1. Amendments to show all measured and approved results of PV procedures, settings of all controls, systems and equipment as finally set upon completion of commissioning,

.2. Project specifications amended by insertion of addenda, change notices,

.3. Flow diagrams and piping schematics as installed at each major item of equipment complete with valves controllers, identified with numbered tags.

.4. "As-built" drawings and specifications to be completed prior to, and available for, pre-start-up inspections

7.10.3 Occupants' comment / complaints audit system:

.1 Use during the Warranty Period.

7.10.4 TAB and commissioning reports:

.1 Provide in accordance with CP.8: Guide to the preparation of COMMISSIONING REPORTS

7.10.5 Final evaluation report:

.1 Provide in accordance with CP.8: Guide to the preparation of COMMISSIONING REPORTS.

7.10.6 Any other documents and reports

RS 7.11 COMMISSIONING DELIVERABLES:

7.11.1 Conceptual Design Report:

.1 First technical submission by the Consultant shall include the following:

.1. From the commissioning perspective, the Conceptual Design Report shall include:

.1 Description of the design describing the Design Criteria, Design Intent, the design philosophy, the rationale for system selection based on life cycle cost analysis, the functional and operational requirements and the conceptual framework for the operation and use of the proposed building, its components and systems, how the proposed design meets the RCMP's requirements, corporate and project objectives. To be updated at each stage of project development.

.2 Design criteria, Design intents,

.2 O&M Report. To include:

.1. O&M budget including projected utility consumption

.2. Spatial requirements for O&M staff (office, lockers, kitchen, showers, washrooms, flow of people and supplies, storage for special tools, spare parts, and maintenance materials),

.3. Cleaning requirements (janitor closets, receptacle for vacuum, equipment supply and storage),

.4. Other O&M requirements including These shall include all requirements associated with O&M aspects including, but not necessarily limited to:

.1 Operating standards and operator requirements,

.2 Air Balancing report and performance verification of HVAC equipment
.3 Equipment and system reliability requirements,
.4 Delivery, content and form of O&M documentation,
.5 Tools, equipment, spare parts and maintenance materials,
.6 Emergency procedures,
.7 Identification and other similar needs,
.8 Waste management requirements,
.9 Preventive maintenance tasks.

.3 Further information may be obtained from CP.7: "Commissioning for Facility Management and Operation".
.4 Comprehensive documentation, design information/data and comments so as to allow the Commissioning Manager to:
.1. Prepare service and staffing contracts,
.2. Prepare a list of spare parts, special tools, maintenance materials and other special equipment to be provided by the Contractor,
.5 Capacity of the facility to change in response to program changes over its life expectancy,
.6 Requirements for operation and maintenance of the project over its life expectancy,
.7 "Phased" construction program,
.8 Assessment of staffing and skill requirements to operate and maintain the project,
.9 Preliminary commissioning plan
.10 Sample of PI/PV report forms and tracking software,
.11 Preliminary building management manual,
.12 Define project archives and how these archives will be managed, updated, and submitted at the end of the project.

7.11.2 33% submission:
.1 Extent of commissioning determined,
.2 Factory and on-site tests of components, sub-systems, systems and integrated systems during construction, installation and commissioning determined,
.3 Outline commissioning specifications using PSPC generic commissioning specifications plus outline project-specific commissioning specifications,
.4 Updated Commissioning Plan,
.5 Updated Building management manual,
.6 Updated Design Intent Document,
.7 Updated O&M Budget,
.8 Outline PI and PV forms. Provide for all components, equipment and systems to be tested,
.9 Maintenance management system (MMS) codes identified for all equipment shown on the construction documents,
.10 Preliminary Training Plan

7.11.3 66% submission:
.1 Factory and on-site tests of components, sub-systems, systems and integrated systems during construction, installation and commissioning defined and detailed in commissioning specs,
.2 Commissioning activities to be deferred to Operational Phase and Warranty Period identified,
.3 Detailed commissioning specifications,
.4 Updated Commissioning Plan,

.5 Detailed Building management manual,
.6 Updated Design Intent Document,
.7 Updated O&M Budget,
.8 Updated Training Plan,
.9 Maintenance management system (MMS) codes identified for all equipment shown on the construction documents, schematics and line diagrams,
.10 Complete PI and PV forms. Provide for all components, equipment and systems to be tested.

7.11.4 99% submission:

.1 Commissioning specifications integrated into project specifications,
.2 90% Commissioning plan,
.3 90% complete Building management manual,
.4 90% Design Intent Document detailing each building system, including all engineering calculations,
.5 Final O&M Budget,
.6 Maintenance management System (MMS) codes identifiers shown on the construction documents and indicated on each PI and PV form,
.7 100% Training Plan, indicating scope and duration of training,
.8 Design information added to PI forms

7.11.5 100% submission:

.1 This submission incorporates all revisions required by the review of the 99% submission,
.2 Updated Commissioning Plan, making it approx. 95% complete.
.3 Update the Design Intent Document to reflect any changes from the 99% submission.

RS 7.12 CONSTRUCTION AND COMMISSIONING:

7.12.1 General:

.1 Upon Contract award, review and Update the PI and PV Forms, installation/start-up Check Lists, Commissioning Plan, Training Plan, commissioning specifications, and Commissioning Schedule to ensure relevance to construction changes to the work. *Refer to CP.9 - Guide to the development of Installation/Start-up Check Lists*, and *CP.10 - Guide to the development of Report Forms and Schematics*,
.2 In consultation with the Contractor, review/select the test instruments to be used and instrument calibration,
.3 Incorporate relevant data from approved shop drawings and installed component data immediately upon approval,
.4 Review contractors compliance with the contract documents,
.5 Witness and certify tests, including those tests conducted before concealment and start up,
.6 Verify that each system is completed, safe to operate and ready for start-up,
.7 Review all test reports and take necessary action with Contractor when work fails to comply with contract,
.8 Immediately notify Departmental Representative when tests fail to meet project requirements and when corrective work will affect schedule,
.9 Ensure that all deficiencies are rectified and acknowledge that the installation of components and systems is ready for the commissioning phase,

.10 Assist Departmental Representative in evaluating testing firm's invoices for services performed,

.11 Review all maintenance management nomenclature, devices and submissions prepared by the contractor. Ensure on site implementation and tagging of maintenance management.

7.12.2 Manuals and reports (Refer to CP.4 - Guide to the preparation of Building Management Manuals):

.1 Four (4) weeks before training is due to commence, assemble, review and approve:

.2 All commissioning documentation, including PV documentation, procedures and expected output.

.3 In consultation with the Contractor, review/select the test instruments to be used and instrument calibration.

.4 Revise the Building management manual Document as construction progresses, ensuring that it reflects the installed systems (refer to *CP.4 Guide to development of Building management manuals*).

.5 Finalize the Operating and Maintenance (O&M) Manual:

.1. Verify, and certify, completeness, relevance and accuracy.

.2. Produce 4 sets and submit to the Departmental Representative prior to interim acceptance or implementation of Training Plan. The Contractor shall retain one copy of each volume for his record and for use during the implementation of the Training Plan (refer to *CP.4 - Guide to the preparation of Building Management Manuals*).

.3. Ensure Contractor assembles all certified tests results and incorporates into the Maintenance manuals.

7.12.3 Training: Implement the Training Plan.

.1 Submit the Training Plan to the Departmental Representative for review and comment at least two weeks prior to the proposed training dates. Update and resubmit as required. Include an agenda and a course outline summarizing the content and duration of training. The training provided must clearly relay:

.1. An understanding of the intent of the design.

.2. Limitations of the systems.

.3. Reasons for the choice of systems.

.2 Coordinate the date(s) of the training session(s) with the Departmental Representative.

.3 Departmental Representative to organize the location and provide the lists of participants.

.4 Prepare a summary of the training sessions. Indicate dates, subject matter, and all personnel present for training. After training, submit the training summary to the Departmental Representative.

.5 Make necessary arrangement for site O&M staff familiarization during construction/ installation.

.6 Consultant to provide training sessions on design intent and operational philosophy of each building system, including architectural systems, and the integrated building systems (all together). Utilize Operating Manuals, Maintenance Manuals and Design Intent Document for training sessions.

.7 Contractor to provide training sessions on the operations and maintenance of components, equipment, sub-systems, systems and integrated systems.

.8 Record the time, date and subject matter of training sessions as they occur. Indicate all those who are present at each training session.

7.12.4 Spare parts:

.1 Finalize the delivery, inventory and storage of all specified spare parts, special tools, and maintenance materials.

7.12.5 Component, sub-systems, systems, and integrated system performance verification (PV)

.1 Test all the components, subsystems, systems and integrated systems in accordance with the provisions of the contract documents. Ensure the work meets the design intent and requirements of ULC and TB Guidelines on Life Safety and Health. Witness, certify and approve all tests.

.2 Certify and date all PV procedures and test results.

.3 Report in writing to the Departmental Representative indicating compliance or anomalies regarding witnessed events. The Consultant is to investigate and recommend in writing any corrective actions to be taken to facilitate compliance with design intent and design criteria.

.4 Provide solutions during the PV process with respect to the variances from the design parameters.

.5 In consultation with the Departmental Representative, instruct the contractors to rectify all deficiencies identified and recorded during the performance verification and adjust or alter the systems to achieve the design parameters. Re-test to verify compliance.

.6 In consultation with the Departmental Representative, recommend takeover of the facility subject to performance of PV and commissioning which were previously agreed to be deferred until the operational phase.

.7 Prior to Interim Inspection, debrief the Departmental Representative on the commissioning process including training; problems; required changes to systems (with costs) which are outside the contractor's responsibility, but which are deemed necessary to meet project requirements; commissioning procedures and other information, experiences and suggestions for future projects. Repeat this process when 80% occupancy is achieved.

7.12.6 Design Intent document and building operational and maintenance manual:

.1 Update the Design Intent Document and BOM manual. Immediately prior to the issuance of the Interim Certificate of Acceptance develop this document so as to become the complete "Building Operational and Maintenance Manual to reflect the final as-built works. Reflect all changes, modifications, revisions and adjustments. This may include the incorporation of reports such as the Area Measurement and Space Usage Report, Fire protection Manual.

RS 8 ESTIMATING AND COST PLANNING

RS 8.1 COST SPECIALIST

8.1.1 Delivering this project on time and within budget is a high priority. A fully qualified cost estimating, cost planning and cost control Team, referred to herein as the Cost Specialist, with a demonstrated record of successful cost management on large construction projects is required. This Cost Specialist will be conversant with all aspects of construction cost estimating during the design stages including the use of Elemental Cost Analysis, Risk Analysis, Life Cycle Costing and Value Engineering/Management techniques.

8.1.2 The purpose of cost planning and cost control is to assist in the accomplishment of project cost objectives. It is a continuous and interactive process involving planning, action, measurement, evaluation and revision.

RS 8.2 SCOPE OF SERVICES

8.2.1 The Consultant’s Cost Specialist shall provide an interactive and continuous cost

consulting service from the commencement of project design through to construction completion, including the preparation of complete estimates for all construction trades, escalation, inflation and contingency costs.

8.2.2 The Consultant's Cost Specialist shall provide to the RCMP and the Consultant, a cost advising, and cost monitoring/reporting service.

8.2.3 The Consultant's Cost Specialist shall attend key project meetings throughout the design phases and be prepared to present and defend the estimates directly to the Departmental Representative.

RS 8.3 SERVICES - BASIC ACTIVITIES

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

RS 8.4 REPORTING

8.4.1 Milestone Reporting

.1 At each of the Milestones specified in this document: provide a complete submission including the required Elemental Summaries, supported by all backup work sheets clearly detailing the process used in preparing the estimate. The detailed work sheets will be the prime basis on which estimates will be reviewed by the RCMP. Cost comparisons and cost reports identifying and explaining the differences between each succeeding cost estimate and their cost effect are also required.

.2 In addition, the Cost Specialist shall fully coordinate all estimates with schedules.

.3 A typical Milestone Report will contain:

.1. Project Estimate Summary;
.2. Elemental Estimate Summary;
.3. Estimate Back-Up Detail:
.4. Basis for escalation, inflation and contingency calculations;
.5. Detailed measurement and pricing;

.4 Narrative:

.1. Outline description of estimate basis;
.2. Description of information obtained and used in the estimate including the date received;
.3. Listing of notable inclusions;
.4. Listing of notable exclusions; listing of items/issues carrying significant risk;
.5. Notes on past and forecast Cost Specialist activity;

.5 Estimate Reconciliation:

.1. With last submission;
.2. With Construction Cost Plan;

.6 Any other relevant information.

8.4.2 Exception Report

.1 The Cost Specialist is to provide continuous cost monitoring, timely identification and early warning of all changes that affect or potentially affect the estimated construction costs of the project.

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

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

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

.1. Scope Change: Identifying the nature, reason and total cost impact of all identified and potential project scope changes affecting Construction Cost Estimate.

.2. Cost Over-runs and Under-runs: Identifying the nature, the reason and the total cost impact of all identified and potential cost variations.

.3. Options Enabling a Return to Construction Cost Estimate: Identifying the nature and potential cost effects of all identified options proposed to return the project within Construction Cost Estimate.

RS 8.5 SUBMISSION STANDARDS

8.5.1 Summary Format

.1 Elemental Analysis: All estimates shall be summarized in an agreed and consistent Elemental format. Several variations in format may be acceptable to the RCMP (by discussion) but those following the ASTM (USA), CIQS (CDN), CSI Uniformat II (USA) or BCIS (UK) formats are preferred.

.2 Trade Summary: Where a trade summary is required, those following the Masterformat are preferred, except where local practice provides a more suitable alternative.

.3 Project Cost Subdivision: The estimate shall isolate the costs of each phase of construction. All estimates within these phases shall further isolate and show separately the cost of individual building blocks and/or the accommodation sections listed here:

.1. New Construction including Base building and fit-up;

.2. Furniture and equipment

.3. IT and Security system infrastructure

.4. IT and Security system cabling

.5. Site work including civil works, utilities, road works and landscaping

8.5.2 Media

.1 Provide three 3 hard copies of all reports including estimate summaries only and one 1 additional hard copy of the full report including the additional estimate support information to the RCMP.

.2 One soft copy of the total estimate, summary and support detail shall be provided.

8.5.3 Time lag

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

8.5.4 Use of all available information:

.1 The Cost Specialist is responsible for providing a complete cost estimate even though the information provided during the concept, design development and early working drawing stages is incomplete.

.2 Where requirements are not firmly defined, the Cost Specialist shall make assumptions, confirm them with the Consultant and either list them as assumptions, or have them incorporated in an outline specification modified by the Consultant.

RS 8.6 TECHNIQUES

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

.1 **Risk Analysis** All construction estimates (except the final pre-tender estimate) shall include and identify design, estimating, inflation escalation and currency exchange allowances as are deemed necessary in light of the current information available. The Cost Specialist shall provide a satisfactory explanation of the level and/or amount of all such sums included within any estimate.

.2 **Scheduling** The Cost Specialist shall assist the Time Specialist by providing building quantities, building systems information and other quantifiable parameters deemed appropriate to the calculation of a reasoned project time schedule. The Time Specialist shall assist the Cost Specialist by maintaining an up-to-date schedule of all design activities along with an agreed bidding and Construction Schedule that will be incorporated by the Cost Specialist within the estimates on a timely basis.

.3 **Life Cycle Costing** In advising the Consultant of the cost information for alternative materials, methods and systems, it is necessary that the Cost Specialist uses all available information to ensure that a complete cost picture is made available, upon which design and construction decisions will be made.

.4 **Continuing Estimate Process** A process of continual adjustment of previous estimates may be used in place of total re-measurement at each milestone reporting point. This is acceptable, provided that at each monthly reporting point a full and up-to-date Elemental Cost Summary is provided and that at each milestone reporting point this Elemental Cost Summary is supported by complete, detailed, standalone back-up/support documentation, as previously described.

.5 **Project Research** The Cost Specialist shall visit the proposed or alternative construction sites to become familiar with site conditions, site access, analyze local labour and material supply conditions, local bidding practices and competition to establish pricing levels. A written report detailing this reconnaissance activity is expected.

RS 8.7 SERVICES - SPECIFIC ACTIVITIES

8.7.1 Project Analysis Stage

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

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

8.7.2 Concept Design

.1 An updated Class "D" estimate will be prepared at the highest level of detail commensurate with the available information using elemental and additional detailed costs.

8.7.3 Design Development

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

.2 Upon final acceptance, the Class "C" estimate shall become the Construction Cost Plan.

8.7.4 Contract Documents

.1 During the production of the contract documents a process of continuing cost control progressively more detailed is required. At each review of contract documents, an up-to-date estimate shall demonstrate compliance with the Construction Cost Plan. Non-compliance with the Construction Cost Plan will require revisions to the contract documents.

.2 Provide a Class “B” estimate with the 66% construction document submission.

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

8.7.5 Pre-Tender

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

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

.3 Upon acceptance, the Class "A" estimate shall become the Construction Cost Plan.

8.7.6 Tender Stage

.1 **Tender Award** During the tender period, examine and report on any cost impact created by the issue of tender/contract addenda. Incorporate the results of such addenda review into the final pre-tender estimate (both elemental and trade versions) prior to receipt of bids.

.2 **Bid Review and Analysis** Assist the Departmental Representative, as required, by analyzing and reconciling any differences between the pre-tender estimate and the submitted bids.

.3 **Negotiation** Should it be necessary to negotiate with any bidder prior to awarding the Contract, the Cost Specialist shall provide cost information as needed and provide advice during negotiations if requested.

.4 **Reconciliation** Upon the signing of a contract with the successful Contractor, the Cost Specialist will reconcile both the elemental and trade estimates, in detail, with the agreed contract sum. These reconciled estimates will be used by the Construction Team during the construction phase of the project.

8.7.7 Cost Specialist Services through Construction

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

.2 Such activity may encompass the following activities:

.1. Evaluation of change orders;

.2. Evaluation of claims;

.3. Evaluation of work completed;

.4. Evaluation of cash flow.

8.7.8 Post Contract

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

.2 If required, this work will be paid for on an agreed, negotiated basis.

RS 8.8 RESPONSIBILITIES TO THE RCMP

8.8.1 The RCMP will review all aspects of the Cost Specialist's work on a continuing basis to determine the validity and completeness of the information provided. In the event the RCMP may identify areas of concern including errors and omissions, as well as areas of inadequate detail or areas that require further explanation, the Cost Specialist shall re-examine the estimates provided and make such revisions as are

subsequently agreed to be necessary and/or provide ample acceptable evidence that such corrections or amendments are unnecessary.

.1 No Action Abrogates Consultant's Responsibilities

.2 No acceptance or approval by the RCMP, whether expressed or implied shall be deemed to relieve the Cost Specialist, or the Consultant, of professional or technical responsibility for the estimates and cost reports.

.3 Acceptance of an estimate by the RCMP does not in any way abrogate the Consultant's responsibility to maintain the agreed Construction Cost Plan throughout the life of the project, or the requirement to redesign should the lowest acceptable bid differ significantly (10%) from the agreed Construction Cost Plan, unless and until the Departmental Representative indicates otherwise in writing.

Royal Canadian Mounted Police | Gendarmerie royale du Canada

Attachment 1 to Appendix A

General Requirements, Specifications, Procedures & Standards

For Professional & Design Services

November 2017

Table of Contents:

1 INTRODUCTION

1.1 GENERAL PROCEDURES AND STANDARDS

1.1.1 GENERAL

.1 These RCMP *General Requirements, Specifications, Procedures and Standards* (GRSP&S) have been developed to:

.1 Facilitate the development of a rational, well-documented design process; and

.2 Ensure compliance with federal government standards, RCMP Policies and Treasury Board directives.

1.1.2 HARMONIZATION WITH THE PROJECT BRIEF

.1 The GRSP&S document must be used in conjunction with the Project Brief, as the two documents are complimentary.

.2 The Project Brief describes project-specific requirements, services and deliverables while the GRSP&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 Project Brief overrides this document.

1.2 PROJECT DELIVERY

1.2.1 GENERAL REQUIREMENTS

.1 The project delivery requirements outlined in this section are applicable to the design and construction of all RCMP projects in Western Region, unless otherwise indicated in the Project Brief.

.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 Project Brief 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 RCMP 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 RCMP 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;

1.2.2 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 RCMP,

.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.

1.2.3 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).

1.2.4 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.

1.3 PROCUREMENT OF GOODS AND SERVICES

1.3.1 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 RCMP.

.2 There is one over-arching principle for all RCMP procurement activities: Integrity. Subordinate to this are guiding principles, which provide the framework for RCMP 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

1.3.2 INTEGRITY AND GUIDING PRINCIPLES

.1 RCMP procurement processes will be open, fair and honest.

.2 Client Service:

.1 RCMP 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 RCMP procurement activities will advance established government policies, within the limits imposed by international trade obligations.

.4 Competition**:**

.1 RCMP procurement will be competitive, with specific exceptions.

.5 Equal Treatment**:**

.1 RCMP must ensure that all potential bidders of a particular requirement are subject to the same conditions.

.6 Accountability**:**

.1 RCMP 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 Project Brief, 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 RCMP at various stages during the design process.

.4 In addition to the Consultants" estimate, RCMP 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 three 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 RCMP 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 m^2 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 m^2 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 RCMP presently utilizes the Primavera Suite software and Microsoft Project for it's current Control Systems and any software used by the consultant should be fully integrated with 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 RCMP 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 it's 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 Baselined, 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 Project Brief.

.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 Project Brief.

.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 RCMP 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 RCMP 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 RCMP 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 RCMP 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 RCMP 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 the RCMP 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 the RCMP 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 The RCMP DOCUMENTS AVAILABLE FROM THE RCMP 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 Accomodation,
.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 THE RCMP Commissioning Manual CP-1 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 1 – 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 Date 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 1.2, 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 StandardTIA/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 RCMP 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 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 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 wellbeing);

.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 RCMP 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 THE RCMP.

.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 the RCMP CONTRACT DOCUMENTS

.1 The RCMPs contract documents are based on common public procurement principles.

.2 The RCMP does not use Canadian Construction Document Committee (CCDC) documents.

.3 The construction contract and the terms and conditions are prepared and issued by RCMP, 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 RCMP 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 RCMP.

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 RCMP project number and the appropriate addendum number.

.5 Sketches shall appear in the RCMP 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 RCMP)

.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 RCMP 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 RCMP ROLE

.1 RCMP 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 1, edited to RCMP 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, RCMP, 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 RCMP 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 -1 All Sections; do not use (delete):
  .1 "Summary" and
  .2 "Section Includes."

2.10.17 Related Sections

.1 In Part 1 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 RCMP 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/tdm-toc-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 RCMP 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, RCMP, 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 Project Brief.

.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 RCMP publications.

3 PROJECT ADMINISTRATION

3.1 GENERAL REQUIREMENTS FOR ALL PROJECTS

.1 The administration requirements outlined in this section are applicable to all RCMP 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 RCMP 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 RCMP Departmental Representative, all team members are responsible for establishing and maintaining a professional and cordial relationship.

3.4.2 NATIONAL PROJECT MANAGEMENT SYSTEM

.1 RCMP 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 RCMP NPMS web site for more details.

.2 http://www.tpsgc-pwgsc.gc.ca/biens-property/sngp-npms/index-eng.html

.3 This GRSP&S document speaks to services that are normally provided by the professional during the Project Delivery Phase of the NMPS.

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 RCMP Commissioning Manual CP.1 (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 Project Brief 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 RCMP Project Team and the User Department.

.2 Direct communication between members of the RCMP 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, RCMP 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 RCMP
  .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 RCMP RESPONSIBILITIES

.1 Administration

.1 RCMP 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 RCMP 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 RCMP 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 RCMP 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 RCMP

.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 RCMP 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, Project Brief, 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.

3.9 USER DEPARTMENT RESPONSIBILITES

.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 Project Brief.

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 RCMP.

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 Project Brief.
.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 Project Brief.

APPENDIX A CHECKLISTS

A.1 CHECKLIST FOR THE SUBMISSION OF CONSTRUCTION DOCUMENTS

A1.1 TITLE BLOCK

Project Title:	Date:
Project Location:	**Project Number:**
Consultant's Name:	**Contract Number:**
RCMP PM:	**Review Stage:**

A1.2 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 -				
.4 Canada Labour Code				
.5 NFPA 10 - Standard for Portable Fire Extinguishers - 2002				
.6 NFPA 13 - Standard for the Installation of Sprinkler Systems				
.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-				
.2 Chapter 3-2: Fire Protection Standard for Design & Construction. http://www.tbs-				
.3 Fire Protection Standard for Electronic Data				

	Equipment. http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=13582				
	3. HRSDC Fire Protection Engineer Standards The design meets the				
.1	Federal Fire Protection Standards. http://www.hrsdc.gc.ca/eng/labour/fire_protection/policies_st				
.2	FC-403 Standard for Sprinkler Systems. http://www.hrsdc.gc.ca/eng/labour/fire_protection/policies_st				
.3	FC-311-M Standard for Record Storage. http://www.hrsdc.gc.ca/eng/labour/fire_protection/policies_st				
	4. Labour Canada Standards The design meets the requirements of:				
.1	Canada Labour Code. http://laws.justice.gc.ca/en/				
.2	Canada Occupational Health and Safety Regulations. http://laws.justice.gc.ca/eng				
.3	Movable Storage Units Standard. http://www.hrsdc.gc.ca/eng/labour/fire_protection/policies_st				
	5. ASHRAE Standards The design meets the requirements of:				
.1	ANSI/ASHRAE 55 – 2004 Thermal Environmental Conditions for				
.2	ASHRAE 62.1 – 2007 – Ventilation for Acceptable Indoor Air				
.3	ASHRAE Applications				

.4 ASHRAE Fundamentals				

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				
.3 MD 15129 – Perchloric Acid Fume Hoods - 2006				
.4 MD 15161 – Guidelines for the control of Legionalla in mechanical systems				
.5 MD 250005 – Energy Monitoring and Control Systems Design Guidelines - 2009				

A1.3 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 RCMP GCs for projects tendered through RCMP				
.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, RCMP, 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.				

A1.4 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	RCMP 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.				

A1.5 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. deign 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

B1.1 SPECIFICATIONS

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

B1.2 DRAWINGS

.1 List all Drawings by number and title.

B.2 SAMPLE OF TABLE OF CONTENTS

Project No: **Table of Contents** **Index**
R.xxxxxx **Page 1 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-1 Civil

L-1 Landscaping

A-1 Architectural

S-1 Structural

M-1	Mechanical
E-1	Electrical

APPENDIX C ADDENDUM FORMAT STANDARD

C.1 SAMPLE OF ADDENDUM FORMAT

C1.1 DRAWINGS

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

C1.2 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

Drawings

1 A1 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

D1.1 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.

D1.2 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).

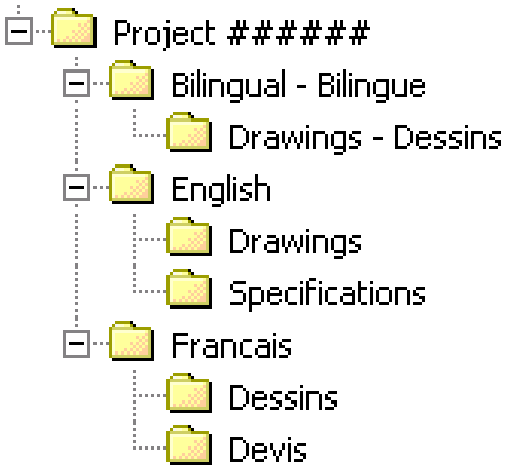
.4 There is therefore a need to adopt a common directory structure and file-naming convention to ensure that the information made available to contractors electronically and in hard (printed) copy is in accordance with the sequence adopted in the real property industries, both for design and construction.

.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.

D1.3 DIRECTORY STRUCTURE


Project ######
Bilingual - Bilingue
Drawings - Dessins
English
Drawings
Specifications
Francais
Dessins
Devis

D1.4 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.

D1.5 4TH TIER SUB-FOLDERS FOR DRAWINGS

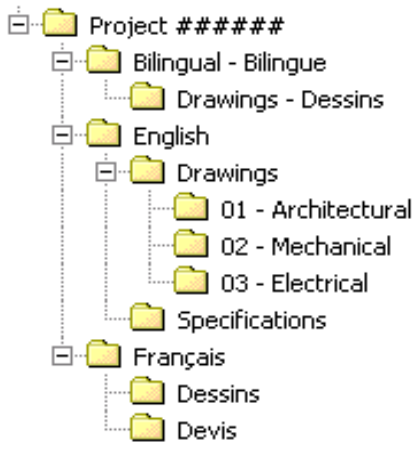
.1 The "*Drawings – Dessins*", "*Drawings*" and "*Dessins*" folders must have 4th Tier sub-folders created to reflect the various disciplines of the set of drawings.

.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.

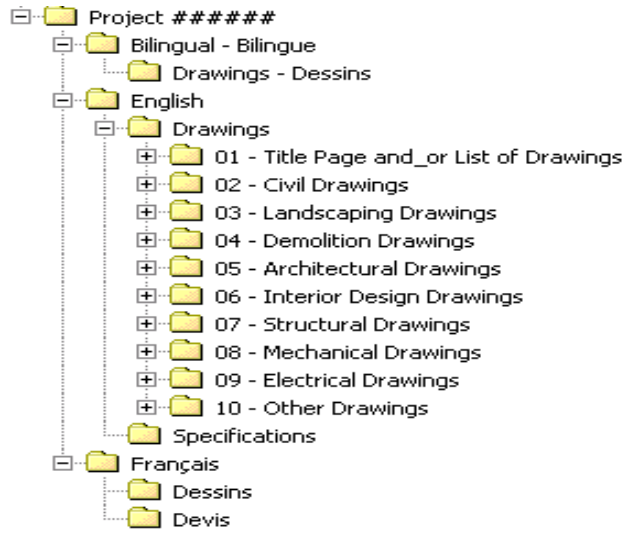
.3 Note:

.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:


Project ######
Bilingual - Bilingue
Drawings - Dessins
English
Drawings
01 - Architectural
02 - Mechanical
03 - Electrical
Specifications
Français
Dessins
Devis

or



D1.6 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

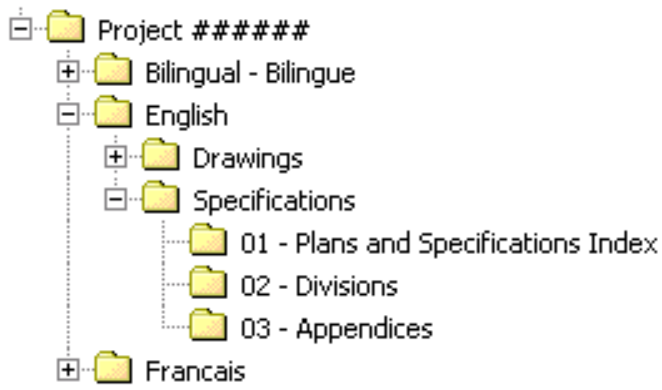
(i.e. Drawing A001 will be printed before Drawing A002, Drawing M02 before Drawing M03, etc…).

D1.7 4TH TIER SUB-FOLDERS FOR SPECIFICATIONS

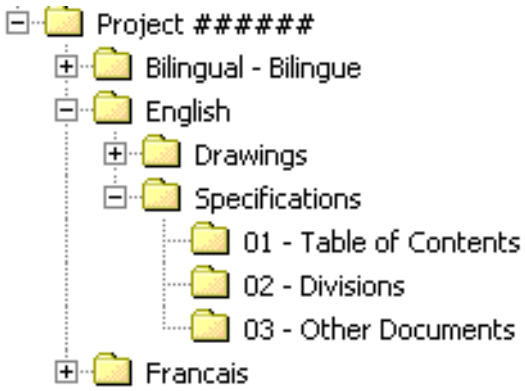
.1 The "*Specifications*" and "*Devis*" folders must have 4th Tier sub-folders created to reflect the various elements of the specifications.

.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



D1.8 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.

1 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…).

D1.9 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.

D1.10 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;

1 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.

1 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.

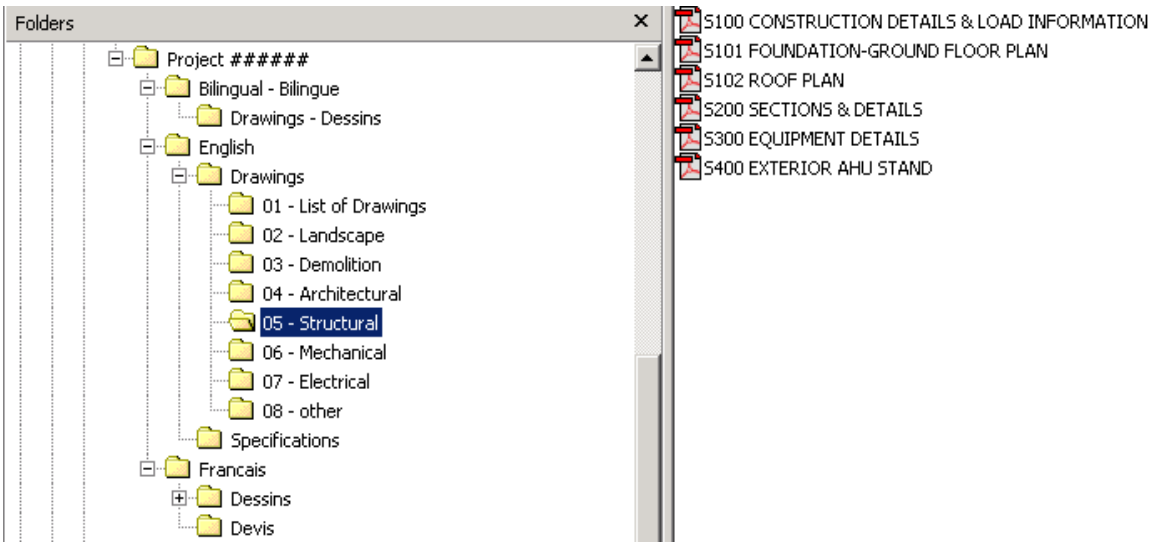
1 While this does not represent a problem if there is only one drawing in the sub- folder, it could disrupt the order when there are two or more drawings. If the alphabetical order of the drawings name does not represent the order on the

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.

D1.11 EXAMPLE OF A 4TH TIER DRAWINGS SUBFOLDER'S CONTENT:



D1.12 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.

D1.13 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:

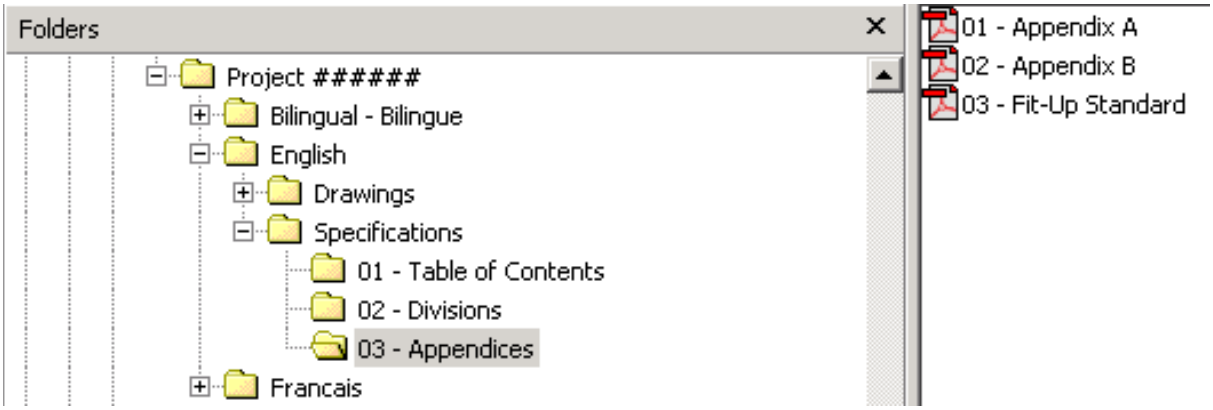
.1 ## - Y, Where:

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

D1.14 EXAMPLE OF A SUB-FOLDER CONTENT (SUB-FOLDER OTHER THAN "*DIVISIONS*"):



D1.15 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.

D1.16 EXAMPLE OF A "*DIVISIONS*" SUB-FOLDER CONTENT:


Folders
Example 2
Bilingual - Bilingue
Drawings - Dessins
English
Drawings
Specifications
01 - Table of Contents
02 - Divisions
Francais
Dessins
Devis
01 - Table des matieres
02 - Divisions
Division 01 - General Instructions.pdf
Division 02 - Existing Conditions.pdf
Division 03 - Concrete.pdf
Division 04 - Masonry.pdf
Division 05 - Metals.pdf
Division 06 - Wood, Plastics, and Composites.pdf
Division 07 - Thermal and Moisture Protection.pdf
Division 08 - Openings.pdf
Division 09 - Finishes.pdf
Division 10 - Specialties.pdf
Division 11 - Equipment.pdf
Division 12 - Furnishings.pdf
Division 13 - Special Construction.pdf
Division 14 - Conveying Equipment.pdf

D1.17 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 de 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.

E1.12 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.

E1.13 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	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
Circulation	Space used, primarily by people, to move from one area to another. It includes major as well as
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 RCMP 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
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: *budget year dollars*
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
Departmental Representative	The person designated in the contract, or by written notice to the Consultant or Contractor, to act for RCMP 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
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 RCMP 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
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
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
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
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
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

	impact on a project). The Impact of individual Risk Events can be qualified as low, medium, high or quantified in terms of time, cost (immediate cost or in-service cost (O&M)) or performance.
Interim Certificate of Completion	The certificates issued by Project manager following the Interim Inspection. Interim payment to the Contractor by RCMP 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
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
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
National Project Management	The system used by RCMP for management of its projects. It replaces the earlier Project Delivery System
PI Forms	Product Information forms; used in commissioning documentation
Probability	The likelihood that an event will occur (i.e. Low, Medium,
Project Acceptance Board	A team assembled by the Project Manager to perform interim and final inspections of the Client Department"s
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
Request for Proposal	The document used for requesting consultant services. It includes the Terms of Reference as well as other contracting

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
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;
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 RCMP Fit- Up Standards, trade shops, mailrooms, computer training rooms, cash
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
Universal Footprint	One standard module which can be multiplied to

	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
Worksettings	Common work areas that support both collaboration and privacy. They include: teaming areas, non-dedicated workstations, privacy nooks, resource areas and
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	RCMP Centre of Expertise
EMCS	Energy Monitoring & Control System
EPA	Effective Project Approval
FHBRO	Federal Heritage Building Restoration Office
FOBS	Federal Office Building Standards (RCMP)
FTE	Full-time equivalent
GRSP&S	General Requirements, Specifications, Procedures and Standards
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 RCMP

OAA	Ontario Association of Architects
O&M	Operation and Maintenance
PA	Project administration
PI	Product Information
PD	Project Description
PM	Project Manager
PMS	Project Management System
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

APPENDIX B

PRICE PROPOSAL FORM

APPENDIX B - PRICE PROPOSAL FORM

Project Title: Architectural and Engineering Design Services – Pangnirtung Detachment

Name of Proponent:_____

INSTRUCTIONS TO PROPONENTS:

1. Complete this Price Proposal Form and submit in a **separate sealed envelope** with the Name of Proponent, Name of Project, Solicitation Number, and the words "PRICE PROPOSAL FORM" typed on the outside of the envelope.

2. PROPONENTS SHALL NOT ALTER THIS FORM.

3. Price Proposals are not to include Applicable Taxes.

4. Price Proposals will be evaluated in Canadian Dollars.

5. Travel and Living Expenses: All Travel and Living Expenses must be incorporated into the Part A – Fixed Fee for Services of this Appendix.

6. In order to ensure that fair and competitive hourly rates are received for each of the positions listed in Part B, the following requirement must be strictly adhered to: Proponents must provide an hourly rate for each listed position. In the event that the firm consists of fewer personnel than listed, provide an hourly rate that corresponds with each position listed.

7. The Proponent shall provide a single fixed hourly rate for each category of personnel of each consultant and sub-consultant for the duration of any resulting Contract.

8. Appendix B – Price Proposal will form part of the resulting Agreement, including applicable clauses from this form.

9. The single fixed hourly rate identified for each category of personnel of the Consultant and each sub-consultant shall be the rate paid for the performance of such services regardless of whether the services are performed by the originally proposed resource or by any proposed back-up/alternate resource. Canada reserves the right to negotiate all hourly rates.

10. When there are three or more responsive proposals, an average price will be determined by adding all the price proposals together and dividing the total by the number of price proposals being opened. This calculation will not be conducted when one or two responsive proposals are received.

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

12. **Only Part A – Fixed Fee for Services will be used for the price evaluation.**

The following Part A will form part of the evaluation process:

REQUIRED SERVICES

Part A – Fixed Fees for Services (R1230D (2016-01-28), GC 5 - Terms of Payment – Architectural and/or Engineering Services)**:**

Service *:	**Fixed Fee (CAD excluding applicable taxes):**
Project Analysis and Schematic Design Services	$_____
Design Development Services	+ $_____
Construction Documents Services	+ $_____
Tender Call and Bid Evaluation Services	+ $_____
Construction Contract Administration Services	+ $_____
Post Construction Services	+ $_____
Commissioning Services	+ $_____
Construction Warranty Services	+ $_____
Total for Part A – Total Evaluated Fee: (FOR EVALUATION PURPOSES)	**= $**_____

The following Part B will NOT form part of the evaluation process:

Part B – Time Based Fees (R1230D (2016-01-28), GC 5 - Terms of Payment– Architectural and/or Engineering Services).

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

The following hourly rates may be used for future contract amendments.

B.1 Senior Personnel

Senior Personnel	
Name/Position	**$ per hour (*)**
	$
	$
	$
	$
	$
	$
	$
	$
	$
	$
	$
	$
	$
	$
	$
	$
	$
	$
	$
	$
	$
	$
	$
	$
	$
	$

B.2 Key Personnel

Key Personnel	
Name/Position	**$ per hour (*)**
	$
	$
	$
	$
	$
	$
	$
	$
	$
	$
	$
	$
	$
	$
	$
	$
	$
	$
	$
	$
	$
	$
	$
	$
	$
	$

**Payment will be based on actual hours spent. All inclusive hourly rate is applicable to both normal working hours and any other shift work as required. Travel time and/or expenses will not be reimbursed separately (Refer to R1230D (2016-01-28), GC 5.12 – Disbursements).

APPENDIX C

SECURITY REQUIREMENTS CHECK LIST (SRCL)

V DIV

Government of Canada / Gouvernement du Canada

SRCL 20171124260

Contract Number / Numéro du contrat
Security Classification / Classification de sécurité

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

PART A - CONTRACT INFORMATION / PARTIE A - INFORMATION CONTRACTUELLE

1. Originating Government Department or Organization / Ministère ou organisme gouvernemental d'origine	2. Branch or Directorate / Direction générale ou Direction
RCMP	Real-Property Mgt. - National Project Delivery Office
3. a) Subcontract Number / Numéro du contrat de sous-traitance	3. b) Name and Address of Subcontractor / Nom et adresse du sous-traitant
TBD	

4. Brief Description of Work / Brève description du travail

THIS SRCL COVERS THE SECURITY CLEARANCE REQUIREMENTS FOR THE DESIGN CONSULTANTS WHO WILL BE WORKING ON THE RCMP New PANGNIRTUNG DETACHMENT IN NUNAVUT. THE FULL SCOPE WILL INCLUDE REVIEW AND ASSESSMENT OF RCMP REQUIREMENTS (PROT. B), DEVELOPMENT OF DESIGN AND CONSTRUCTION PLANS AND SPECIFICATIONS (NON-SENSITIVE), CONSTRUCTION ADMINSTRATION AND COMMISSIONING. A SEPERATE SRCL WILL BE ISSUED FOR THE TRADEPEOPLE WORKING ON THE CONSTRUCTION.

5. a) Will the supplier require access to Controlled Goods? Le fournisseur aura-t-il accès à des marchandises contrôlées?	☑ No Non	☐ Yes Oui
5. b) Will the supplier require access to unclassified military technical data subject to the provisions of the Technical Data Control Regulations? Le fournisseur aura-t-il accès à des données techniques militaires non classifiées qui sont assujetties aux dispositions du Règlement sur le contrôle des données techniques?	☑ No Non	☐ Yes Oui
6. Indicate the type of access required / Indiquer le type d'accès requis		
6. a) Will the supplier and its employees require access to PROTECTED and/or CLASSIFIED information or assets? Le fournisseur ainsi que les employés auront-ils accès à des renseignements ou à des biens PROTÉGÉS et/ou CLASSIFIÉS? (Specify the level of access using the chart in Question 7. c) (Préciser le niveau d'accès en utilisant le tableau qui se trouve à la question 7. c)	☐ No Non	☑ Yes Oui
6. b) Will the supplier and its employees (e.g. cleaners, maintenance personnel) require access to restricted access areas? No access to PROTECTED and/or CLASSIFIED information or assets is permitted. Le fournisseur et ses employés (p. ex. nettoyeurs, personnel d'entretien) auront-ils accès à des zones d'accès restreintes? L'accès à des renseignements ou à des biens PROTÉGÉS et/ou CLASSIFIÉS n'est pas autorisé.	☑ No Non	☐ Yes Oui
6. c) Is this a commercial courier or delivery requirement with **no** overnight storage? S'agit-il d'un contrat de messagerie ou de livraison commerciale **sans** entreposage de nuit?	☑ No Non	☐ Yes Oui

7. a) Indicate the type of information that the supplier will be required to access / Indiquer le type d'information auquel le fournisseur devra avoir accès

Canada ☑	**NATO / OTAN** ☐	**Foreign / Étranger** ☐
7. b) Release restrictions / Restrictions relatives à la diffusion		
No release restrictions / Aucune restriction relative à la diffusion ☑ MT.	All NATO countries / Tous les pays de l'OTAN ☐	No release restrictions / Aucune restriction relative à la diffusion ☐
Not releasable / À ne pas diffuser ☐		
Restricted to: / Limité à : ☐	Restricted to: / Limité à : ☐	Restricted to: / Limité à : ☐
Specify country(ies): / Préciser le(s) pays :	Specify country(ies): / Préciser le(s) pays :	Specify country(ies): / Préciser le(s) pays :
7. c) Level of information / Niveau d'information		
PROTECTED A / PROTÉGÉ A ☐	NATO UNCLASSIFIED / NATO NON CLASSIFIÉ ☐	PROTECTED A / PROTÉGÉ A ☐
PROTECTED B / PROTÉGÉ B ☑	NATO RESTRICTED / NATO DIFFUSION RESTREINTE ☐	PROTECTED B / PROTÉGÉ B ☐
PROTECTED C / PROTÉGÉ C ☐	NATO CONFIDENTIAL / NATO CONFIDENTIEL ☐	PROTECTED C / PROTÉGÉ C ☐
CONFIDENTIAL / CONFIDENTIEL ☐	NATO SECRET / NATO SECRET ☐	CONFIDENTIAL / CONFIDENTIEL ☐
SECRET / SECRET ☐	COSMIC TOP SECRET / COSMIC TRÈS SECRET ☐	SECRET / SECRET ☐
TOP SECRET / TRÈS SECRET ☐		TOP SECRET / TRÈS SECRET ☐
TOP SECRET (SIGINT) / TRÈS SECRET (SIGINT) ☐		TOP SECRET (SIGINT) / TRÈS SECRET (SIGINT) ☐

TBS/SCT 350-103(2004/12)

RECEIVED
SEP 0 [illegible] 2017
NWR Departmental Security

Security Classification / Classification de sécurité

Canada

Government of Canada / Gouvernement du Canada

Contract Number / Numéro du contrat
Security Classification / Classification de sécurité

PART A *(continued)* / PARTIE A *(suite)*

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

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

Short Title(s) of material / Titre(s) abrégé(s) du matériel :
Document Number / Numéro du document :

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

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

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

ERS (RRS) MT

Special comments:
Commentaires spéciaux : The consultant team will be required to view sanitized drawings and access to detachment standards.

NOTE: If multiple levels of screening are identified, a Security Classification Guide must be provided.
REMARQUE : Si plusieurs niveaux de contrôle de sécurité sont requis, un guide de classification de la sécurité doit être fourni.

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

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

INFORMATION / ASSETS / RENSEIGNEMENTS / BIENS

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

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

PRODUCTION

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

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

11. d) Will the supplier be required to use its IT systems to electronically process, produce or store PROTECTED and/or CLASSIFIED information or data? — ☐ No / Non ☑ Yes / Oui (MT.)
Le fournisseur sera-t-il tenu d'utiliser ses propres systèmes informatiques pour traiter, produire ou stocker électroniquement des renseignements ou des données PROTÉGÉS et/ou CLASSIFIÉS?

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

Government of Canada / Gouvernement du Canada

Contract Number / Numéro du contrat
Security Classification / Classification de sécurité

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

For users completing the form **manually** use the summary chart below to indicate the category(ies) and level(s) of safeguarding required at the supplier's site(s) or premises.
Les utilisateurs qui remplissent le formulaire **manuellement** doivent utiliser le tableau récapitulatif ci-dessous pour indiquer, pour chaque catégorie, les niveaux de sauvegarde requis aux installations du fournisseur.

For users completing the form **online** (via the Internet), the summary chart is automatically populated by your responses to previous questions.
Dans le cas des utilisateurs qui remplissent le formulaire **en ligne** (par Internet), les réponses aux questions précédentes sont automatiquement saisies dans le tableau récapitulatif.

SUMMARY CHART / TABLEAU RÉCAPITULATIF

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

MT MT MT

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

☑ No / Non ☐ Yes / Oui

If Yes, classify this form by annotating the top and bottom in the area entitled "Security Classification".
Dans l'affirmative, classifier le présent formulaire en indiquant le niveau de sécurité dans la case intitulée « Classification de sécurité » au haut et au bas du formulaire.

12. b) Will the documentation attached to this SRCL be PROTECTED and/or CLASSIFIED?
La documentation associée à la présente LVERS sera-t-elle PROTÉGÉE et/ou CLASSIFIÉE?

☑ No / Non ☐ Yes / Oui

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

APPENDIX D

CONSULTANT TEAM IDENTIFICATION FORM

APPENDIX D – CONSULTANT TEAM IDENTIFICATION FORM

The Consultant and other members of the Consultant Team shall be, or eligible to be, licensed, certified or otherwise authorized to provide the necessary professional services to the full extent that may be required by provincial or territorial law. This form can be altered or expanded, but each referenced Proponent/Key Sub-Consultant Firm / Specialist must be specified and align with the composition of the Consultant Team identified in Appendix G – Evaluation Criteria.

D.1 Consultant (Proponent - Architect):

Firm or Joint Venture Name: .....
.....
.....

Key Individuals (personnel) and provincial professional licensing status and/or professional accreditation:

.....
.....
.....
.....
.....

D.2 Key Sub-Consultants Firms / Specialists:

D.2.1 Civil Engineering

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

Key Individuals (specialists) and provincial professional licensing status and/or professional accreditation:

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D.2.2 Mechanical Engineering

Firm Name: .....
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Key Individuals (specialists) and provincial professional licensing status and/or professional accreditation:

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D.2.3 Electrical Engineering

Firm Name: .....
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Key Individuals (specialists) and provincial professional licensing status and/or professional accreditation:

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D.2.4 Structural Engineering

Firm Name: .....
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Key Individuals (specialists) and provincial professional licensing status and/or professional accreditation:

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D.2.5 Landscape Architect

Firm Name: .....
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Key Individuals (specialists) and provincial professional licensing status and/or professional accreditation:

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D.2.6 Commissioning Specialist

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

Key Individuals (specialists) and provincial professional licensing status and/or professional accreditation:

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APPENDIX E

DECLARATION/CERTIFICATIONS FORM

APPENDIX E - DECLARATION/CERTIFICATIONS FORM

E.1 General Information

Project Title: _____

Name of Proponent: _____

Street Address: _____ **Mailing Address:** _____

_____

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

Address:

_____
Street Number / Street Name, Unit / Suite / Apartment Number

_____
City, Province, Territory

_____
Postal Code

Telephone Number: (___) ___ - ____

Fax Number: (___) ___ - ____

E-Mail: _____

E.2 Procurement Business Number & Organization

Procurement Business Number: _____

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

E.3 Integrity Provisions

In accordance with the *Ineligibility and Suspension Policy* (http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html), the Proponent must provide the required documentation, as applicable, to be given further consideration in the procurement process:

- Declaration of Convicted Offences (as applicable)
- Required Documentation

E.4 Federal Contractors Program for Employment Equity - Certification

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

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

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

Complete both A and B.

A. Check only one of the following:

( ) A1. The Proponent certifies having no work force in Canada.

( ) A2. The Proponent certifies being a public sector employer.

( ) A3. The Proponent certifies being a federally regulated employer being subject to the *Employment Equity Act*.

( ) A4. The Proponent certifies having a combined work force in Canada of less than 100 permanent full-time and/or permanent part-time employees.

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

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

OR

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

B. Check only one of the following:

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

OR

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

E.5 Former Public Servant (FPS) - Certification

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

Definitions

For the purposes of this clause,

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

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

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

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

Former Public Servant in Receipt of a Pension

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

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

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

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

Work Force Adjustment Directive

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

If so, the Proponent must provide the following information:

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

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

E.6 Status and Availability of Resources

The Proponent certifies that, should it be awarded a contract as a result of the bid solicitation, every individual proposed in its bid will be available to perform the Work as required by Canada's representatives and at the time specified in the bid solicitation or agreed to with Canada's representatives. If for reasons beyond its control, the Proponent is unable to provide the services of an individual named in its bid, the Proponent may propose a substitute with similar qualifications and experience. The Proponent must advise the Contracting Authority of the reason for the substitution and provide the name, qualifications and experience of the proposed replacement. For the purposes of this clause, only the following reasons will be considered as beyond the control of the Proponent: death, sickness, maternity and parental leave, retirement, resignation, dismissal for cause or termination of an agreement for default.

If the Proponent has proposed any individual who is not an employee of the Proponent, the Proponent certifies that it has the permission from that individual to propose his/her services in relation to the Work to be performed and to submit his/her résumé to Canada. The Proponent must, upon request from the Contracting Authority, provide a written confirmation, signed by the individual, of the permission given to the Proponent and of his/her availability. Failure to comply with the request may result in the bid being declared non-responsive.

E.7 Education and Experience

SACC Manual clause A3010T *(*2010-08-16) Education and Experience.

E.8 Declaration

Name of Proponent:_____

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

.....	.....
name	signature
.....	
title	

I have authority to bind the Corporation / Partnership / Sole Proprietorship / Joint Venture

.....	.....
name	signature
.....	
title	

I have authority to bind the Corporation / Partnership / Sole Proprietorship / Joint Venture

.....	.....
name	signature
.....	
title	

I have authority to bind the Corporation / Partnership / Sole Proprietorship / Joint Venture

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

APPENDIX F

SUBMISSION REQUIREMENTS, EVALUATION PROCEDURES AND BASIS OF SELECTION

APPENDIX F –

SUBMISSION REQUIREMENTS, EVALUATION PROCEDURES AND BASIS OF SELECTION

F.1 Submission Requirements

F.1.1 Bid Preparation Instructions

F.1.1.1 Canada requests that Proponents provide their bid in separate sections as follows:

a. Section I: Technical Bid (**four (4) hard copies**) (and one (1) soft copy on DVD/CD/USB)

b. Section II: Financial Bid (**one (1) hard copy**) (and one (1) soft copy on DVD/CD/USB)

c. Section III: Certifications (**one (1) hard copy**)

d. If there is a discrepancy between the wording of the soft copy and the hard copy, the wording of the hard copy will have priority over the wording of the soft copy.

e. Prices must appear in **Appendix "B" – Price Proposal Form** only. No prices must be indicated in any other section of the bid.

f. The maximum number of pages including text and graphics to be submitted for **Appendix "G" – Evaluation Criteria, G.3 Rated Requirements** is **forty (60) pages (single-sided) or thirty (30) pages (double-sided) on 8 ½ x 11 paper size. If larger sized paper is provided then each sheet of paper will be counted as two pages. A minimum font size 10 must be used.**

The following contents are not included as part of the maximum page limitation noted above:

i. Covering letter (optional - contents not evaluated)
ii. Completed Appendix "D" – Consultant Team Identification Form;
iii. Completed Appendix "B" – Price Proposal Form;
iv. Completed Appendix "E" Declaration/Certifications Form
v. G.2 Mandatory Requirements at Appendix "G"
vi. Front page of the RFP Solicitation; and,
vii. Front page of revision(s) to the RFP;

Any pages which extend beyond the above page limitation and any other attachments will be extracted from the proposal and will not be evaluated.

g. Canada requests that Proponents follow the format instructions described below in the preparation of their bid:

   i. use 8.5 x 11 inch (216 mm x 279 mm) paper;
   ii. use a numbering system that corresponds to the bid solicitation.

h. In April 2006, Canada issued a policy directing federal departments and agencies to take the necessary steps to incorporate environmental considerations into the procurement process Policy on Green Procurement (http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html). To assist Canada in reaching its objectives, Proponents should:

i. use paper containing fibre certified as originating from a sustainably-managed forest and containing minimum 30% recycled content; and
ii. use an environmentally-preferable format including black and white printing instead of colour printing, printing double sided/duplex, using staples or clips instead of cerlox, duotangs or binders.

F.1.2. Section I: Technical Proposal

a) In their Technical Proposal, Proponents should demonstrate their understanding of the requirements contained in the bid solicitation and explain how they will meet these requirements. Proponents should demonstrate their capability and describe their approach in a thorough, concise and clear manner for carrying out the work.

b) The Technical Proposal should address clearly and in sufficient depth the points that are subject to the evaluation criteria against which the bid will be evaluated. Simply repeating the statement contained in the bid solicitation is not sufficient. In order to facilitate the evaluation of the bid, Canada requests that Proponents address and present topics in the order of the evaluation criteria under the same headings. To avoid duplication, Proponents may refer to different sections of their bids by identifying the specific paragraph and page number where the subject topic has already been addressed.

F.1.3 Section II: Financial Proposal

a) Proponents must submit their Price Proposal Form in accordance with **Appendix "B" - Price Proposal Form**. The total amount of Goods and Services Tax or Harmonized Sales Tax must be shown separately, if applicable.

b) **Exchange Rate Fluctuation**

C3011T (2013-11-06), Exchange Rate Fluctuation applies.

F.1.4 Section III: Certifications

Proponents must submit the certifications required under SI6 Certifications and Appendix "E" Declaration/Certifications Form.

F.1.5 Government Electronic Tendering Service (GETS) Documents

Proponents will be provided with an electronic copy of some of the RFP documents, in Microsoft Office format, with the solicitation package issued on GETS. In the event of any discrepancies

between the Microsoft Office copies and PDF documents released officially through GETS, the PDF documents released through GETS will prevail.

F.2 Evaluation Procedures and Basis of Selection

F.2.1 Evaluation Procedures

a) Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria.
b) An evaluation team composed of representatives of Canada will evaluate the bids.

F.2.2 Technical Evaluation

a) **Mandatory Requirements**: Each bid will be evaluated for compliance with the mandatory requirements of the bid solicitation. All elements of the bid solicitation that are mandatory requirements are identified specifically with the words “must” or “mandatory”. Bids that do not comply with each and every mandatory requirement will be considered non-responsive and be disqualified. Mandatory requirements and evaluation processes are described under Appendix G - Evaluation Criteria.

b) **Rated Requirements**: Where Rated Requirements are specified in the RFP, each bid will be rated by assigning a score to the rated requirements, which are identified in the bid solicitation by the word “rated” or by reference to a score. Proponents who fail to submit complete bids with all the information requested by this bid solicitation will be rated accordingly. Rated requirements and evaluation processes are described Appendix G Evaluation Criteria.

c) **Technically Responsive Bid:** A technically responsive bid is a bid that meets all of the mandatory requirements and obtains the required minimum points specified in the bid solicitation for the criteria that are subject to point rating.

F.2.3 Reference Checks

a) The Proponent is requested to provide a client contact for each reference project in its bid, as requested in Appendix G – Evaluation Criteria. If information requested is not provided in the bid, the Proponent must provide the information upon request by the Contracting Authority within the timeframe identified in the request. References from representatives of Canada will be accepted.

b) It is the responsibility of the Proponent to confirm in advance that their client contact for the project reference will be available to provide a response and is willing to provide a reference.

c) For the purpose of this evaluation, reference checks may be used to verify and validate the Proponent’s bid response. If a reference check is performed, Canada will conduct the reference check in writing by e-mail. Canada will send the reference check request directly to the client contact for the project reference provided by the Proponent. The client contact

will have 5 working days (or a longer period otherwise specified in writing by the Contracting Authority) from the date that Canada's e-mail was sent, to respond to Canada.

d) The client contact will be required, within 2 working days after Canada sends out the reference check request, to acknowledge the receipt of the reference check request and identify his or her willingness and availability to conduct such a reference check. If Canada does not received the required response from the client contact, Canada will notify the Proponent by e-mail, to allow the Proponent to contact its client contact directly to ensure that he or she responds to Canada within the allotted time.

e) Notwithstanding section F.2.3 d), if the client contact is unavailable when required during the evaluation period, the Proponent will be requested to provide an alternate client contact for the same referenced project. Proponents will only be provided with this opportunity once for each referenced project and only if the original client contact is unavailable to respond. The process as described in F.2.3 d) is applicable for the reference check with the alternate client contact. The period to respond for either the original client contact, or the alternate client contact, will be a total of 5 working days (or a longer period otherwise specified in writing by the Contracting Authority) in accordance with F.2.3 d).

f) Wherever information provided by a client contact differs from the information supplied by the Proponent, the Proponent will be asked to clarify project reference information provided in its bid response. Canada will assess the following information during the evaluation of the Proponent's bid response: the Proponent's original project reference information, any information provided by the Proponent in response to clarification request(s), and any information supplied by the client contact for the referenced project.

g) Non-consideration of the Proponent's claimed project experience will result if:

   i. the reference check client contact fails to timely respond to Canada's request;

   ii. the reference check client contact states he or she is unable or unwilling to provide the information requested;

   iii. the information provided by the Proponent cannot be verified and validated by Canada; or

   iv. the reference check client contact organization and/or client contact was affiliated with the Proponent during the referenced project, if the client contact organization and/or contact has ever been or is currently affiliated with the Proponent, or if the client contact organization is an entity that does not deal at arm's length with the Proponent.

h) Where non-consideration of a Proponent's claimed project experience, as a result of F.2.3 g), for any mandatory requirement in Appendix G – Evaluation Criteria, results in the Proponent not meeting one or more mandatory requirements, the bid will be declared non-responsive in accordance with section F.2.5 Basis of Selection of this appendix.

i) Non-consideration of a Proponent's claimed project experience, as a result of F.2.3 g), for the rated requirements in Appendix G – Evaluation Criteria, will result in the Proponent not being awarded the points associated with the respective rated criterion.

F.2.4 Financial Evaluation

a) Unless otherwise specified in the RFP, the financial evaluation will be conducted by calculating the Total Evaluated Fee as indicated in Appendix B – Price Proposal Form, Part A.

b) The financial evaluation will also be conducted in accordance with the following SACC Manual Clause:
SACC Manual Clause A0220T (2014-06-26), Evaluation of Price.

F.2.5 Basis of Selection

F.2.5.1 Highest Combined Rating of Technical Merit (90%) and Price (10%)

1. To be declared responsive, a bid must:
   a. comply with all the requirements of the bid solicitation; and
   b. meet all Mandatory Requirements; and
   c. achieve a **minimum overall pass mark of 60% (60 out of the 100 points available (weighted rating max score)).**

2. Bids not meeting (a), (b) and (c) will be declared non-responsive, and will not be evaluated against the highest responsive combined rating of technical merit and price.

3. The selections will be based on the highest responsive combined rating of technical merit and price. The ratio will be **90%** for the technical merit and **10%** for the price.

4. To establish the technical merit score, the overall technical score for each responsive bid will be determined as follows: total number of points obtained / maximum number of points available multiplied by the ratio of **90%.**

5. To establish the pricing score, each responsive bid will be prorated against the lowest evaluated price and the ratio of **10%.**

6. For each responsive bid, the technical merit score and the pricing score will be added to determine its combined rating.

7. The responsive bid with the highest combined rating of technical merit and price will be recommended for award of a Contract.

The table below illustrates an example where all three bids are responsive and the selection of the contractor is determined by an 90/20 ratio of technical merit and price, respectively. The total available points equal 135 and the lowest evaluated price is $45,000 (45).

	Proponent 1	**Proponent 2**	**Proponent 3**
Overall Technical Score	115/135	89/135	92/135
Bid Evaluated Price	$55,000.00	$50,000.00	$45,000.00
Technical Merit Score	115/135 X 90 = 76.66	89/135 X 90 = 59.33	92/135 X 90 = 61.33

Pricing Score	45/55 X 10 = 8.18	45/50 X 10 = 9.00	45/45 X 10 = 10.00
Combined Rating	84.84	68.33	71.33
Overall Rating	1st	3rd	2nd

APPENDIX G

EVALUATION CRITERIA

APPENDIX G

EVALUATION CRITERIA

G.1 Proponent Instructions:

a. The Proponent is requested to respond to the Evaluation Criteria using the table formats below.

b. Listing experience without providing any supporting data to describe where and how such experience was obtained will result in the experience not being included for evaluation purposes. If any of the requirements under this section are omitted from the bid, they will be set aside without further consideration and the bid will be considered to be non-responsive. In the case of any Mandatory Criteria, a lack of supporting information will render the bid non-responsive and will be set aside without further consideration.

c. The Proponent must make clear references to the candidates' curriculum vitae (CV) or résumé for each stated claim in the response (where applicable). Complete details demonstrating how a Proponent meets each Evaluation Criteria must be provided, including reference to where, when and how experience was obtained and how it relates to each requirement.

d. Project References :

i. Where Proponents must submit project references in their responses to the evaluation criteria, Canada may contact the client contact to validate Proponent's responses. The information obtained through client reference validation will be used to assist in determining the compliance of the referenced project to the evaluation criteria. The client reference checks will result in either confirmation that project reference information is accurate or will result in non-consideration of the claimed project experience in accordance with Submission Requirements, Evaluation Procedures and Basis of Selection (Appendix F).

ii. Proponents should only provide the required reference project(s) as indicated in each evaluation criteria. If more than the required number of reference project(s) is provided, only the first projects listed in sequence will receive consideration and any others will not receive consideration.

G.2 MANDATORY REQUIREMENTS

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

Mandatory Requirement 1: Proponent's Consultant Team

M1.1 The Proponent must propose a Consultant Team with demonstrated experience delivering the requirements similar to the requirements in Appendix A – Project Brief including, but not limited to, the following:

Proponent must be the Architect.
Key sub-consultant firms / Specialists – Civil Engineering, Mechanical Engineering, Electrical Engineering, Structural Engineering, Landscape Architect, Commissioning Specialist.

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

M1.2 All key team members listed above must be licensed, or eligible to be licensed, certified or otherwise authorized to provide the necessary professional services to the full extent that may be required by law in the Territory of Nunavut.

** Proof of licensing/certifications/ authorizations must be provided prior to the award of a contract. If proof is not provided upon request by the Contracting Authority the bid will be deemed non-responsive.

M1.3 The Proponent must provide the following information:–
(a) Name of key team members' firm(s);
(b) Key personnel to be assigned to the project;
(c) For the Proponent (Consultant) - Architect indicate current license and/or how you intend to meet the provincial or territorial licensing requirements prior to contract award.
(d) In the case of a joint venture identify the existing or proposed legal form of the joint venture (refer to R1410T General Instructions to Proponents**,** GI9 Limitation of submissions).

Proponents are requested to use the Consultant Team Identification Form in Appendix "D" when responding to this mandatory requirement.

G.3 RATED REQUIREMENTS

The order of the proposals should follow the order established below in the Rate Requirements section. Points for the Rated Requirements will be allocated in accordance with G.4 Evaluation and Rating.

Rated Requirement 1: Achievements of Proponent on Projects

R1.1 Describe the Proponent's accomplishments, achievements and experience as the Consultant on projects.

Select a **maximum** of 2 reference projects undertaken by the Proponent within the last 8 years. Proponent's that are joint venture submissions must select 2 reference projects per joint venture member. Only the first 2 projects listed in sequence will receive consideration and any others will not receive consideration.

The Proponent should provide the following information for each reference project:

(a) Clearly describe how the reference project is comparable/relevant to the work included in Appendix A – Project Brief.
(b) Provide a brief project description and intent. Narratives should include a discussion of design philosophy / approach to meet the intent, design challenges and resolutions.
(c) Describe budget control and management - i.e. contract price & final construction cost - explain variation.
(d) Describe project schedule control and management - i.e. initial schedule and revised schedule - explain variation.
(e) Client contact for project references – Provide the name, address, current phone and fax of a client contact at working level - references may be checked.
(f) Provide names of key personnel responsible for project delivery.
(g) Describe awards received, if applicable.

R1.2 The project references must be for work done by the Proponent (as defined in R1410T General Instructions to Proponents**,** GI2 Definitions). Past project experience from entities other than the Proponent will not be considered in the evaluation.

If the Proponent is a joint venture, indicate which reference projects were carried out by each joint venture member.

Rated Requirement 2: Achievements of Consultant Team Key Sub-consultant firms / Specialists on Projects

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

Select a **maximum** of 2 reference projects undertaken by the Consultant Team key sub-consultant firms / specialists within the last 8 years per key sub-consultant firm / specialist. Only the first 2 projects listed in sequence will receive consideration and any others will not receive consideration.

The Proponent should provide the following information for each reference project:

(a) Clearly describe how the reference project is comparable/relevant to the work included in Appendix A – Project Brief.
(b) Provide a brief project description and intent. Narratives should include a discussion of design philosophy / approach to meet the intent, design challenges and resolutions.
(c) Describe budget control and management - i.e. contract price & final construction cost - explain variation.
(d) Describe project schedule control and management - i.e. initial schedule and revised schedule - explain variation.
(e) Client contact for project references – Provide the name, address, current phone and fax of a client contact at working level - references may be checked.
(f) Provide names of key personnel responsible for project delivery.
(g) Describe awards received, if applicable.

Rated Requirement 3: Achievements of Key Personnel on Projects

Describe the experience and performance of each of the Proponent's Consultant Team key personnel to be assigned to this project regardless of their past association with the Proponent. This is the opportunity to emphasize the strengths of the individuals on the team, to recognize their past responsibilities, commitments and achievements.

The Proponent should include the following information for each description:

(a) professional accreditation;
(b) accomplishments/achievements/awards;
(c) relevant experience, expertise, number of years' experience in a relevant discipline;
(d) role, responsibilities and degree of involvement of the individual in past projects.

Rated Requirement 4: Understanding of the Project:

The Proponent should demonstrate an understanding of the project requirements in Appendix A – Project Brief, including an understanding of the goals of the project, the functional/technical requirements, the constraints and the issues that will shape the end product.

The Proponent should describe an understanding of the following in response to this requirement:

(a) The functional and technical requirements;
(b) Broader goals (federal image, sustainable development, sensitivities);

(c) Significant issues, challenges and constraints; and
(d) Project schedule and cost: Review schedule and cost information and assess risk management elements that may affect the project.

Rated Requirement 5: Scope of Services:

The Proponent should demonstrate their capability to deliver the services, meet project challenges, and to provide a plan of action for the work in Appendix A – Project Brief.

The Proponent should describe the following in response to this requirement:
(a) Scope of Services - detailed list of services
(b) Work Plan - detailed breakdown of work tasks and deliverables
(c) Project Schedule - proposed major milestone schedule
(d) Risk Management Strategy
(e) Sustainable Development Strategy

Rated Requirement 6: Management of Services:

The Proponent should describe how the services will be delivered and how the constraints will be met; how the services will be managed to ensure continuing and consistent control and communication efficiency; how the Consultant Team will be managed and organized and how it will fit in the existing structure of the key sub-consultant firms/specialists.

The Proponent should include the following in response to this requirement:

(a) Describe the makeup of the full Consultant Team proposed in response to Mandatory Requirement 2, including their roles and responsibilities to deliver the work in Appendix A – Project Brief.
(b) Provide an organization chart with position titles, reporting relationships and names of each member of the Consultant Team, including a joint venture business plan (if Proponent is a joint venture), and team structure;
(c) What back-up will be committed
(d) Provide profiles of the key positions (specific assignments and responsibilities);
(e) Outline of an action plan of the services with implementation strategies and sequence of main activities.
(f) Reporting relationships
(g) Provide a Communication Strategy.
(h) Response time: demonstrate how the response time requirements will be met

Rated Requirement 7: Design Philosophy / Approach / Methodology

The Proponent should elaborate on aspects of the project considered to be a major challenge which will illustrate design philosophy / approach / methodology. This is the opportunity for the Proponent to state the overall design philosophy of the Consultant Team as well as the Proponent's approach to resolving design issues and in particular to focus on the unique aspects of the requirements in Appendix A – Project Brief.

The Proponent should describe the following in response to this requirement:

- Design Philosophy / Approach / Methodology that the Proponent will apply when delivering the work in Appendix A – Project Brief;
- The major challenges and how the Proponent's approach will be applied to those particular challenges.

G.4 EVALUATION AND RATING

G.4.1 The Rated Requirements will be evaluated in accordance with the following to establish Technical Ratings:

G.4.1.1 Proponents **must** achieve a minimum pass mark of 60 points out of the 100 points available. No further consideration will be given to Proponents not achieving the minimum pass mark of 60 points.

G.4.1.2 Calculation of Score: Weight Factor x Rating = Weighted Rating (Score)

Technical Rating – Table 1

Criterion	Weight Factor	Rating	Weighted Rating (Score)
R1 - Achievements of Proponent on Projects	2.0	0 - 10	0 - 20
R2 - Achievements of Consultant Team Key sub-consultant firms / Specialists on Projects	1.5	0 - 10	0 - 15
R3 - Achievements of Key Personnel on Projects	1.0	0 - 10	0 - 10
R4 - Understanding of the Project	1.5	0 - 10	0 - 15
R5 - Scope of Services	1.5	0 - 10	0 - 15
R6 - Management of Services	1.5	0 - 10	0 - 15
R7 - Design Philosophy / Approach / Methodology	1.0	0 - 10	0 - 10
Technical Rating	10.0		0 - 100

G.4.2 Generic Evaluation - Table 2

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

	INADEQUATE	WEAK	ADEQUATE	FULLY SATISFACTORY	STRONG
0 point	2 points	4 points	6 points	8 points	10 points
Did not submit information which could be evaluated.	Lacks complete or almost complete understanding of the requirements.	Has some understanding of the requirements but lacks adequate understanding in some areas of the requirements.	Demonstrates a good understanding of the requirements.	Demonstrates a very good understanding of the requirements.	Demonstrates an excellent understanding of the requirements.
	Weaknesses cannot be corrected.	Generally doubtful that weaknesses can be corrected.	Weaknesses can be corrected.	No significant weaknesses.	No apparent weaknesses.
	Proponent does not possess qualifications and experience	Proponent lacks qualifications and experience	Proponent has an acceptable level of qualifications and experience	Proponent is qualified and experienced	Proponent is highly qualified and experienced.
	Consultant Team proposed is not likely able to meet requirements	Consultant Team proposed does not cover all components or overall experience is weak.	Consultant Team proposed covers most components and will likely meet requirements.	Consultant Team proposed covers all components - some members have worked successfully together.	Strong Consultant Team proposed - has worked successfully together on comparable projects
	Sample projects not related to this requirement.	Sample projects generally not related to this requirement.	Sample projects generally related to this requirement.	Sample projects directly related to this requirement.	Lead supplier in sample projects directly related to this requirement.
	Extremely poor capability, insufficient to meet performance requirements.	Little capability to meet performance requirements.	Acceptable capability, should ensure adequate results.	Satisfactory capability, should ensure effective results.	Superior capability, should ensure very effective results.