

1 GENERAL INFORMATION

1.1 INTRODUCTION

Summary Description of Consultant Services – Parks Canada Agency (PCA) is seeking the services of an Architectural firm **or structural engineer/building envelope engineer** to provide prime consultant services and architectural services with full engineering services including but not limited to: design, construction administration and post construction professional services for the Operations Building roof replacement project.

1.2 BACKGROUND

.1 The Operations Compound roof and clearstory windows are at the end of lifecycle. PCA intends to replace the metal roof system and windows as well improve energy efficiency in the building. The building is approximately 3900 m² with an existing metal roof. (see images in 5.0).

1.3 THE CLIENT / USER

.1 The Client for this project is Parks Canada.
.2 PCA will administer the consultant contract. The main contact is Christine Hamilton, Asset Manager.

1.4 EXISTING CONDITIONS AND INFORMATION

.1 Summary of Site Conditions –
.1 Existing standing seam metal roof and window assemblies are failing for a variety of reasons but mostly due to end of life.
.2 Constraints and Challenges - unknown at time of writing
.3 Planning Considerations
.1 All designs will need to meet National Building Code of Canada.
.2 The Federal Government is committed to reducing its carbon footprint and the impact of climate change to Canada.

2 PROJECT OBJECTIVES

2.1 PROJECT DELIVERY

.1 Deliver the project utilizing best practices in support of Client / Users needs, respecting the approved scope, quality, budget and schedule
.2 Achieve:
.1 A cohesive functional partnership and open communication between all members of the project delivery team and stakeholders throughout all phases of the project life,
.2 Rigorous quality assurance review during the design and construction phases, including the application of value engineering reviews in the design and Cost of all building systems, A 24 hr. turn around response to correct issues as they occur,
.3 Success in satisfying and where possible exceeding the expectations and needs of Parks Canada clients and stakeholders,

- .4 Continuity of key personnel working in a dedicated team for the project life.

2.2 PROJECT DELIVERY APPROACH

- .1 Contracting Approach: PCA will provide contracting services required to procure Construction Services Contract.

2.3 SCOPE OF WORK

- .1 Overview - prepare tender documents for the replacement of the standing seam metal roof and clearstory windows in the Operations Compound Building
- .2 Architectural **or structural engineer/building envelope engineer** - Work to include inspection services and preparation of tender documents
- .3 Mechanical Engineering – only as needed.
- .4 Electrical Engineering – Only as needed.

2.4 PROJECT BUDGET

- .1 This project has an Indicative Cost Estimate of \$3,500,000. This budget is based on the BCR Class “D” estimates

2.5 PROJECT SCHEDULE

- .1 Detailed Design: March 2023
- .2 Tender for Construction November 2023 – December 2023
- .2 Construction (Optional): May 2024 –August 2024
- .3 Warranty Inspection May 2025

2.6 PROPOSAL PRICE

- .1 The Consultant is requested to provide a fixed price including disbursements for this project based on this briefing document. The proposed price for the services (proposal price) shall not include any amount for the Goods and Services Tax (GST). GST shall be listed separately. Provide a breakdown of price for the required services as mentioned in the RFP.
 - Price for RS 1: Design Services
 - Price for RS 2: Tender/Document Services
 - Price for OS 1: Construction Stage Services/Warranty Inspection

2.7 INVOICING

- .1 The Consultant is permitted to invoice on a monthly basis. Each invoice should be accompanied by an accounting of available reimbursable expenses to the date of invoice and shall be accompanied by photocopies of receipts and invoices with the invoiced items relating to the project being highlighted.
- .2 Submit a summary of reimbursable on the Consultant Invoice Payment form.
- .3 All invoices shall be sent to the PCA for review and processing.
- .4 All invoices must be accompanied by a stat declaration form (format to be provided by PCA), filled out by the consultant and notarized.

- .5 The Consultants last invoice shall be marked Final. This will result in closing of the contract and deletion of any further opportunity to invoice.

3 CONSULTANT SERVICE REQUIREMENTS

3.1 SUMMARY DESCRIPTION OF REQUIRED SERVICES

- .1 The Consultant will be responsible for providing and coordinating full professional Architectural, Engineering, and Specialist Consultant services required for Detailed Design Services Stage A summary of professional expertise and relevant specialty experience requirements for this project include, but are not limited to the following:
 - .2 Architecture and Engineering Services. Summary scope of Services:
 - .1 Review building/site conditions.
 - .2 Visit the site to familiarize the Consultant Team with all conditions of the site that may impact the design,
 - .3 Review Project Program
 - .4 Prepare fully coordinated construction drawings based on the approved Design Option.
 - .5 Prepare specifications
 - .6 Provide a "take off" (bill of materials) and class C estimate on cost of materials and equipment.
 - .7 Environmental Assessment will be completed by PCA however a Project Description based on tender specifications will be required.
 - .8 Commissioning.
 - .9 O and M Manuals (if required)

3.2 SUMMARY DESCRIPTION OF OPTIONAL SERVICES

- .1 Construction phase services to the completion of construction
 - .1 Provide standard AAA construction stage services, including non-resident supervision of construction.
 - .2 Prepare as-built documents based on tender mark-ups.

3.3 CONSULTANT TEAM RESPONSIBILITIES

- .1 Prime Consultant
 - .1 The Prime Consultant is completely responsible for providing and coordinating the work of all professional disciplines (Architectural and Engineering) required, from the Pre-Design Services Stage to the completion of the Post Construction Stage of the project.
- .2 Consultant Team
 - .1 The Prime Consultant and their personnel identified in the Consultants RFP submission, including Sub-Consultants comprise the Consultant Design Team (Consultant Team).
 - .2 The Consultant Team will be required to maintain its expertise for the duration of the project.
 - .3 The Consultant Team will be required to comply with and adhere:

- (1) To the commitments.
- (2) The Consultant Team shall be comprised of qualified professional and technical expertise with extensive relevant experience capable of providing the services identified and required for the project.

3.4 GENERAL SERVICE REQUIREMENTS

- .1 Overview
 - .1 In general, PCA will act as the Project Manager during all phases of design and construction of the project. The Consultant must adhere to all the Standards and Guidelines outlined in this Project Brief, as may be applicable to the project and scope of work described herein.
 - .2 Under the leadership of the Consultant, the Consultant Team will be required to deliver integrated professional services, in accordance with the requirements set forth in this Project Brief. The services will be administered in distinct stages, as follows:
 - (1) Project Planning Services
 - (2) Design Services
 - (3) Construction Documents
 - (4) Construction Stage Services
 - .3 The outline of deliverables and process, as presented in this Project Brief, are intended as a general outline only. It is not exhaustive and does not preclude alternative or supplementary approaches as may be suggested by the Consultant for consideration by the Project Manager.
- .2 The Consultant shall perform the following services, in accordance with the terms and conditions of the Agreement and all the requirements of this Project Brief:
 - .1 Standard of Care.
 - .2 Project Information, Decisions, Acceptances & Approvals.
 - .3 Changes in Services.
 - .4 Codes, By-Laws, Licenses, Permits.
 - .5 Provision of Staff and Sub-Consultant Services.

3.5 PROJECT ADMINISTRATION REQUIREMENTS

- .1 General Deliverables
 - .1 Where deliverables and submissions include summaries, reports, drawings, plans, specifications and schedules, one (1) original shall be provided to the Project Manager in electronic format, unless otherwise specified.
 - .2 Electronic format shall be:
 - (1) Correspondence Word and PDF, MS Project
 - (2) Drawings: AutoCAD and PDFAs built must be provided in AutoCAD and PDF format.
- .2 Acceptance of Consultant Deliverables
 - .1 While PCA acknowledges the Consultant's obligations to meet project requirements; the project delivery process entitles PCA to review the

work. PCA reserves the right to reject undesirable or unsatisfactory work. The Consultant must obtain Project Manager acceptance(s) during each of the project stages.

- .2 Acceptances indicate that, based on a general review of material for specific issues, the material is considered to comply with governmental and departmental objectives and practices and that overall project objective should be satisfied. The acceptance does not relieve the Consultant of professional responsibility for the work and compliance with the terms and conditions of the contract.
- .3 PCA acceptances do not prohibit rejection of work, which is determined to be unsatisfactory at later stages of review. If progressive design development or technical investigation reveals that earlier acceptances should be withdrawn, the Consultant is responsible for redesigning work and resubmitting for acceptance at the Consultant's cost.
- .4 The Consultant shall perform the following service, in accordance with the terms and conditions of the Agreement and all the requirements of the Project Brief:
 - (1) Coordination with Sub-consultants.

.3 Design Meetings

- .1 The Project Manager shall arrange meetings generally throughout the design stages of the project once per month, for all members of the project team.
- .2 Meetings will normally be held in the PCA's offices.
- .3 The Consultant shall:
 - (1) Attend the meetings,
 - (2) Record the issues and decisions,
 - (3) Prepare and distribute minutes within 48 hours of the meeting.

.4 Security Requirements

- .1 The Consultant shall distribute project documents such as drawings, specifications, reports, only to the design team members and only as required to perform the work.
- .2 The Consultant and design team members are expected to reasonably protect the documents in their care and the information to which they have access.

3.6 PROJECT PLANNING SERVICES

.1 General Requirements

- .1 The purpose of this stage is to produce the necessary background and ancillary information required to deliver a cohesive, quality project.
- .2 Conduct site visit and obtain all information required to design facility. Advise PCA in writing of information outstanding information needed to proceed with the project.

3.7 DESIGN SERVICES

.1 General Requirements

- .1 Prepare tender documents as required to complete roof replacement and clearstory window replacement.
- .2 Include drawing documents to adjust current roofline in a small identified corner.
- .3 Existing hard copies of the drawings for the building will be made available for bidders to view at the optional site visit.

3.8 CONSTRUCTION DOCUMENT SERVICES

- .1 General Requirements
 - .1 The objective of the Construction Document stage is to prepare drawings, specifications, Bill of Materials and class A estimate, setting forth in detail all the requirements for the construction of the project.
 - .2 The Consultant must obtain written authorization from the Project Manager before proceeding with Construction Documents.
- .2 Responsibilities of the Consultant Team
 - .1 The Consultant Team Scope and activities shall include but are not limited to the following:
 - (1) Administrative:
 - .A Provide information, advice, manager and lead design process and meetings.
 - (2) Regulatory:
 - .A Complete:
 - .a Detailed building code analysis.
 - (3) Scope and Activities:
 - .A Obtain acceptance for submissions (66%, and final)
 - .B Confirm format of drawings and specifications
 - .C Clarify special procedures (i.e. phased construction)
 - .D Submit drawings and NMS specifications at the required stages. (66%,and final)
 - .E Provide written response to all review comments and incorporate them into Construction Documents
 - (4) Technical and Production Meetings:
 - .A Production of construction documents will be reviewed during the meetings arranged by Project Manager and Consultant.
 - .B Representatives from Client Department staff will be present as arranged by the Project Manager.
 - .C Consultant shall ensure that his staff and the sub-consultant representatives attend the technical and production meetings as required.
 - .D Consultant shall arrange for all necessary data, progress prints, etc.
 - .3 General Deliverables
 - .1 Deliverables identified are typical for most projects, but must be customized by the Consultant for the specific requirements of the project.

- .2 Completeness of the work should reflect the stage of a submission.
 - .3 Aspects to be included (but are not limited to) are identified below for each submission stage.
- .4 66% Submission Stage Deliverables provided for review
- .1 Architectural(components as needed):
 - (1) Cover sheet with list of drawings
 - (2) Site Plan
 - (3) Roof Plan
 - (4) Exterior Elevations
 - (5) Wall sections
 - (8) Large scale details drawings
 - (9) Window schedule
 - .2 Electrical(components as needed):
 - (1) Co-ordination with Architectural or structural engineer/building envelope engineer, and Mechanical drawings
 - .3 Mechanical(components as needed):
 - (1) Co-ordination with Architectural or structural engineer/building envelope engineer and electrical drawings
- .5 100% Submission Stage
- .1 Applies to all ASME disciplines:
 - (1) All drawings and specifications 100% reviewed signed and sealed
 - (2) Architectural or structural engineer/building envelope engineer:
 - a. Complete set of coordinated construction drawings including all details on building envelope, interiors and elemental finishing schedules (where applicable).
 - b. Provide final code review.
 - (3) Complete coordination with Structural, Mechanical and Electrical (as required).
 - a. Complete set of coordinated construction drawings, including details, sections, plans and schedules.
 - b. Information on drawings must fully comply with codes, standards and Project Brief.
 - (4) Submit original reproducible drawings and specifications as well as a set of digitized specifications in PDF (Portable Document Format), book-marked by section and drawing files in PDF, on CD or DVD disk(s) or by e-mail, as requested by the Project Manager.
 - (5) Submit and obtain formal acceptance on plans and specifications required by Inspection Authorities.

3.9 SUBMISSIONS, REVIEW AND APPROVAL PROCESS

- .1 Submissions:
 - .1 Provide all required submissions, either to, or as directed by the Project Manager.
 - .2 Provide required sets of Construction Drawings and Specifications to the Project Manager for review at the 66% and final submission stage.

- .3 Provide one original set of Construction Drawings and Specifications to the Project Manager.
- .4 The purpose of review and approval process is to ensure compliance with the project program, adherence to good design practice and technical quality assurance.
- .5 The Consultant shall perform the following services, in accordance with the terms and conditions of the Agreement and all the requirements of the Project Brief:
 - (1) Parks Canada Review.
 - (2) Other Authorities Having Jurisdiction Review.

4 CONSTRUCTION ADMINISTRATION SERVICES

4.1 GENERAL

- .1 The Consultant shall perform the following services, in accordance with the terms and conditions of the Agreement and all the requirements of this Project Brief:
 - .1 Construction Stage Inspections (concurrent with municipal inspection).
 - .2 Construction Changes.
 - .3 Interim Inspection.
 - .4 Final Inspection.
 - .5 Record (As-Built) Drawings and Specifications.

4.2 CONSTRUCTION PROJECT MEETINGS

- .1 The Construction Management Service, Project Manager shall arrange meetings every two weeks or as deemed suitable, throughout the entire construction period, for all members of the project team to attend, including representatives from:
 - .1 Prime Consultant.
 - .2 Prime Consultant's Sub-Consultants as determined by Construction Management Service, Project Manager.
- .2 Construction Management Service, Project Manager or Representative shall ensure minutes are taken and distribute to all parties.
- .3 Meetings will normally be held in Prince Albert National Park Operations Compound Building.

5.0 IMAGES

5.1 Front of Building with upper story windows



5.2 Rear of building with upper story windows



5.3 Rear of building Image 1



5.4 Rear of building Image 2



6.0 END OF LIFE FAILURES

6.1 Flashing at the peak over the entrance



6.2 Capped gas line



6.3 Roof vent/stack



6.4 Drip edge along brick wall

