Sirmilik
National Park

Project Brief

for Design Renovation of Administrative Office

Pond Inlet, Nunavut

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1 Introduction

1.1 Background

1.1.1 The SNP office is a 2 story building located in Pond Inlet built in 2011.

1.1.2 The building contains a small living quarters, bathroom, mechanical room and storage space on the bottom floor. On the upper floor there are several offices, meeting rooms, janitorial room, telcom room and a small kitchenette.

1.1.3 With the creation of the Tallurutiup Imanga National Marine Conservation Area, Pond Inlet will become one of the main bases of operations to manage the newly created protected area.

1.1.4 Additional office spaces will be required and the intent is to modify the lower floor of the existing building into office spaces. Further some small modifications of the upper floor areas as well as some overall building upgrades.

1.1.5 In addition to the layout of the building, it has been noticed that through age and occupation other issues have arisen for that will need to be inspected, provide a design solution and fixed. The most notable are leakage in the roof, frozen pipes and a possible tilting of the building.

Figure 1: SNP Office Lower Level in Pond Inlet, NU

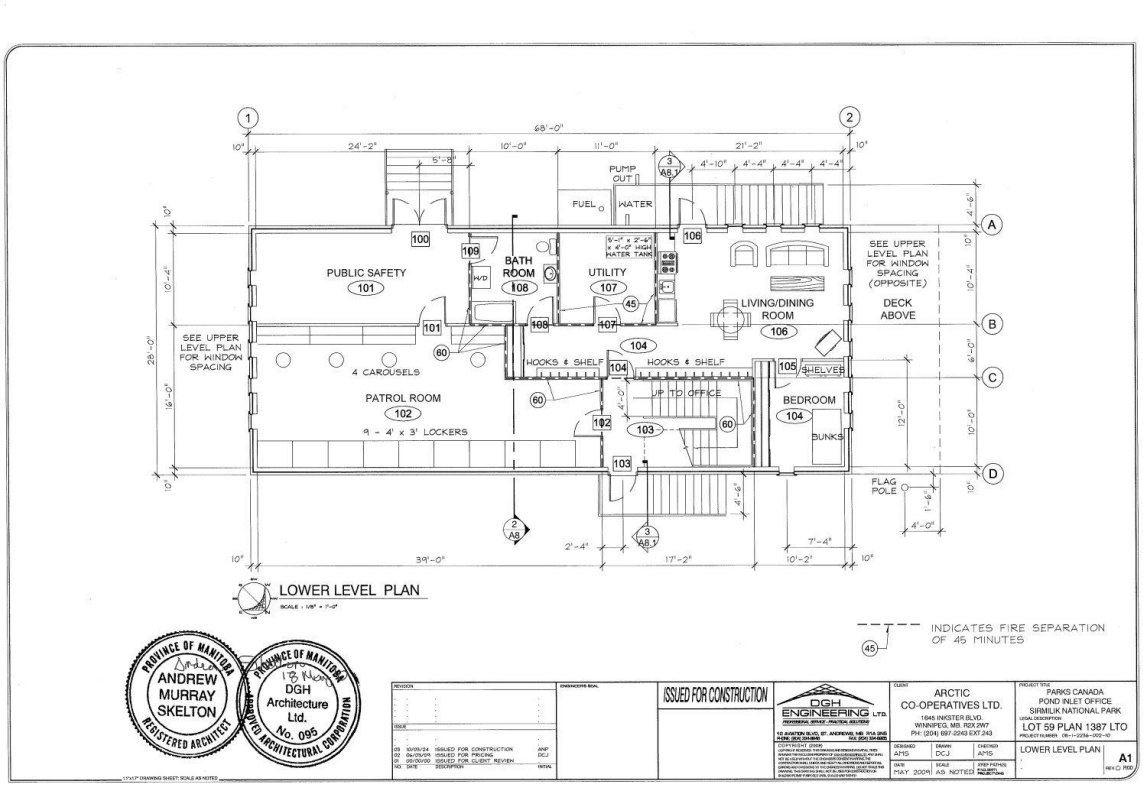
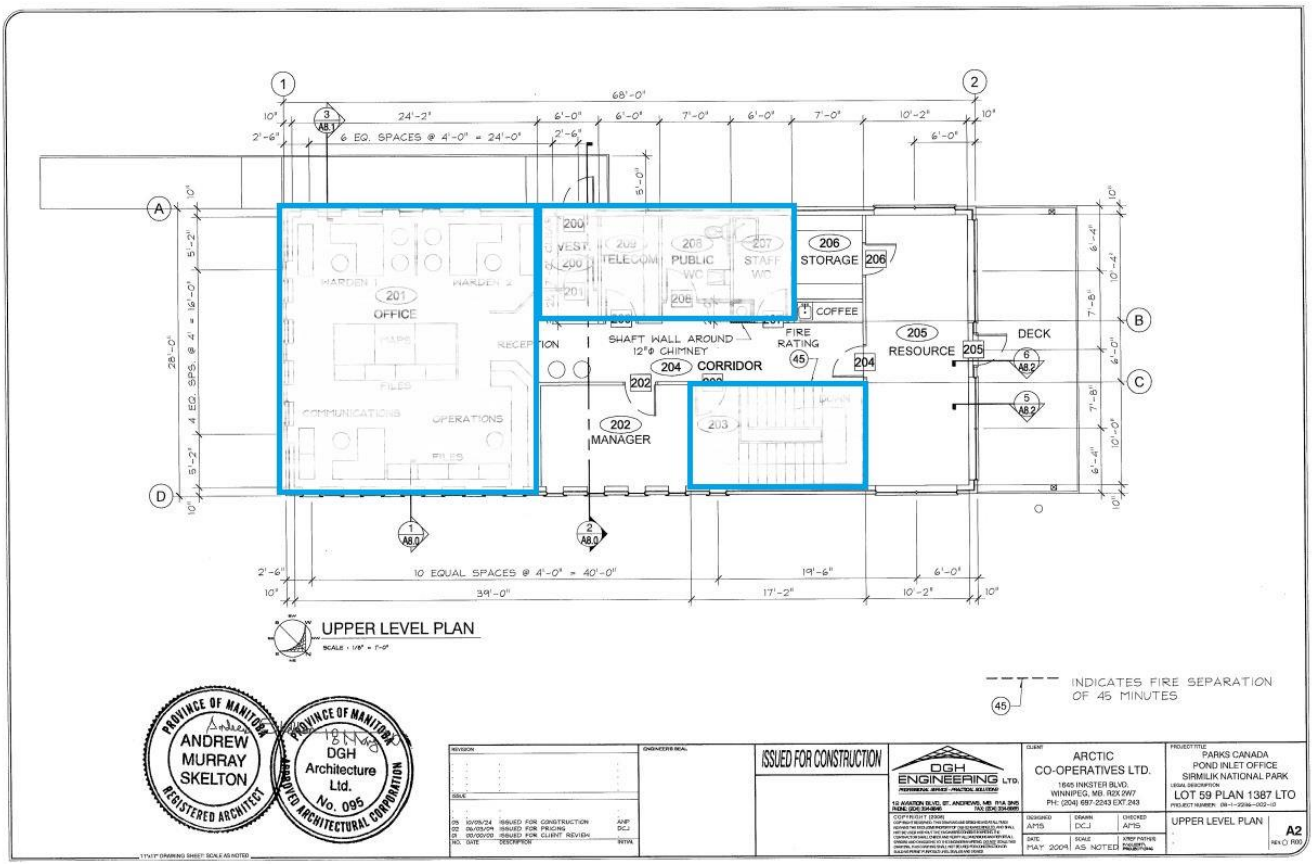


Figure 2: SNP Office Upper Level in Pond Inlet, NU (only the highlighted section to be modified)



1.2 Objectives

1.2.1 To develop design documents for the procurement of construction services to complete renovations and repairs to the SNP Office building in Pond Inlet, Nunavut to add 8 office spaces on the lower floor of the existing building. The 8 workspaces break down to 6 cubicles and 2 enclosed offices. In total for the entirety of the building, Parks Canada requires 3 enclosed offices and 10 cubicles for workstations.

1.2.2 To modify the space as needed to make it more conducive to an office environment such as additional windows or additional lighting.

1.2.3 The consultant will have a Structural Engineering come to site and preform an inspection on the SNP office building. The building is leaning towards the North/West corner. The consultant will determine the cause and provide a design solution.

1.2.4 In addition to 1.2.1 above, include space for weapons storage, quiet room(s), an additional meeting space for 6 people, kitchenette on the lower floor, modified washrooms (to be smaller than existing washroom on the 1st floor), printer area and general office storage.

1.2.5 To modify the space as needed to make it more conducive to an office environment such as additional windows or additional lighting.

1.2.6 The consultant is to provide corrective actions in the design to the list of deficiencies identified in Appendix A.

1.2.7 Modify the upper floor office space to allow more efficient use of space for the cubicles and storage areas.

1.2.8 Minimize cost and moving of major systems (mechanical, electrical, structural and building envelope systems).

1.2.9 Improve ancillary systems that would make the space more conducive to an office environment such as additional telecom drop, improved and more robust internet and telecom connectivity.

1.2.10 Install a wheel chair ramp access in the lower level and allow corridor and office spacing for wheel chair access.

2 Scope

2.1 General Scope

2.1.1 The Consultant will review the existing pictures and drawings.

2.1.2 Interview the stakeholders in regards to the requirements of the changes to the current space.

2.1.3 Develop concept, design and tender drawings and specifications with appropriate levels of cost estimates.

2.1.4 Tender and Construction phases is not part of the contract and will be added via amendment at a later date if and when required.

2.1.5 All designs shall be submitted for approval by the Departmental Representative in the form of stamped plans and specifications.

2.1.6 All drawings shall be drawn to scale, using metric units, and in compliance with PSPC National CADD standard which will be provided by the Departmental Representative

2.2 Travel

2.2.1 The Department Representative will work with the Consultant to determine the appropriate consultant team members to travel to site.

2.2.2 The Department Representative will work with the Consultant to provide additional photographs and information in lieu of physical presence.

2.2.3 See section 4.4 for additional detail.

2.3 Meetings

2.3.1 All meetings with the client group will be by telephone or video conference.

2.3.2 The consultant is responsible for minutes of all meetings. Minutes are to be submitted within 1 week of the meeting.

2.3.3 Schedule a kick off meeting within 2 weeks of award.

2.3.4 Schedule a meeting within 2 weeks of submitting each deliverable.

2.3.5 If and when an in person meeting is required, a change to the contract will be required.

2.3.6 The Department Representative will work with the Consultant to determine the appropriate consultant team members to travel to attend the meeting.

2.4 Drawings and Specifications

2.4.1 General

2.4.1.1 The consultant will submit a draft deliverable (Concept, Design Development, 60% submission) to Parks Canada for review.

2.4.1.2 The consultant will schedule 2 weeks for Parks Canada to review and comment.

2.4.1.3 The consultant will set up a teleconference meeting to discuss and address the comments 2 weeks after the draft deliverable has been submitted (see 2.3 above).

2.4.1.4 The consultant will submit the final deliverable within 2 weeks of the meeting.

2.4.1.5 Unless otherwise approved by the Parks Canada Representative, the consultant shall not proceed to the next phase until the deliverable has been approved and finalized.

2.4.2 Architectural Design

2.4.2.1 The Consultant must complete a concept, detailed and tender ready drawings and specifications as indicated in the objective above.

2.4.2.2 Minimize the amount of disruption to the structural, mechanical and electrical components and maintain consistent building envelope of the existing structure.

2.4.2.3 Ensure the modified space is conducive as an office space environment.

2.4.2.4 Ensure there is sufficient natural lighting for the office staff. Ensure that the window matches or is better than the existing. Where possible, specify windows that are the same size and design such that limited spares are required.

2.4.3 Structural

2.4.3.1 Structural Engineering may be required if there is a need to modify or move structural walls.

2.4.3.2 Provide structural analysis to determine the cause of the building is shifting or tilt.

2.4.3.3 Ensure the current structure and foundation is able to handle the additional loads and occupancy.

2.4.3.4 Provide design solution to prevent any further shifting due to existing use or to new occupancy loads.

2.4.4 Building Envelope Design

2.4.4.1 Where the design will affect the building envelope, the Consultant must complete a detailed envelope design to meet or exceed the performance targets and design principles of the existing building.

2.4.4.2 Install access to stacks on the roof to allow staff to safely clear snow and ice from the exhausts. Where required install latch points for fall arrest gear.

2.4.4.3 Ensure the system accounts for snow and ice build up for access.

2.4.5 Mechanical and Electrical Design

2.4.5.1 The Consultant will ensure the mechanical and electrical systems are sized to be able to deliver the necessary services to the final design based on the site-specific requirements. The Consultant will retain all necessary professional services required to perform the design.

2.4.5.2 The Consultant will determine if the following systems need any modifications or upgrades must at a minimum include the following:

2.4.5.2.1 Plumbing systems including domestic cold & hot water distribution, sanitary drainage, new domestic water heating system, new plumbing fixtures;

2.4.5.2.2 HVAC systems including new heating system, new mechanical ventilation system with outdoor air intake and heat recovery unit, new exhaust systems, new controls;

2.4.5.2.3 Electrical power systems including electrical service, electrical distribution with new electrical panels and receptacles, new back-up power system;

2.4.5.2.4 Electrical lighting systems upgrades including new interior & exterior lighting, new switching;

2.4.5.2.5 Fire protection systems upgrades including all required emergency lighting, fire alarm, CO alarm, exit signs.

2.4.6 Telecommunications

2.4.6.1 Include additional drops for existing and the new work and meeting spaces.

2.4.6.2 Provide cable trays or tracks such that cables and wires do not run on the floors.

2.4.7 Demolition:

2.4.7.1 Based on the renovation, include specifications for the demolition and disposal of material of the existing building prior to installing the new systems.

3 Detailed Requirements

3.1 General Requirements

3.1.1 The Consultant must perform the work as per the contract. The design must comply with and meet the intent of the provided objectives and scope above.

3.2 Design Approach

3.2.1 Upon award, the Consultant is required to review the pictures and drawings provided by PCA in order to gain understanding of Parks Canada’s Sirmilik National Park office building.

3.2.2 The consultant will prepare for travel to site (see section 2.3 above) to visually inspect the building and collect the necessary information to confirm the existing drawings and site conditions.

3.2.3 The Consultant will adapt the concept design and develop a solution to meet the objectives and scope. It is the responsibility of the Consultant to retain all necessary professional services to complete the design described herein.

3.2.4 The Departmental Representative must sign off on the concept and final design that must then be stamped by a licensed professional engineer.

3.2.5 The Consultant is responsible for the concept and final design and therefore must communicate to the Contract Authority any issues present in the scope, the concept design and the final design.

3.3 Applicable Codes

3.3.1 The Consultant is responsible to ensure the Sirmilik National Park Office renovations comply with the following codes, regulations, and policies:

3.3.1.1 National Building Code of Canada (2015);

3.3.1.2 National Energy Code of Canada for Buildings (2017);

3.3.1.3 Nunavut Good Practice Guidelines, latest edition

3.3.1.4 National Fire Code of Canada (2015);

3.3.1.5 CSA C22.1 (2018) – Canadian Electric Code;

3.3.1.6 Treasury Board Fire Protection Standard (2009);

3.3.1.7 ASHRAE Standard 55 (2017) – Thermal Environmental Conditions for Human Occupancy;

3.3.1.8 ASHRAE Standard 62.1 (2019) – Ventilation and Acceptable Indoor Air Quality

3.3.1.9 ASHRAE Standard 62.2 (2019) – Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings;

3.3.1.10 ASHRAE Standard 90.2 (2018) – Energy Efficient Design of Low-Rise Residential Buildings;

3.3.1.11 CSA F326 – Residential Mechanical Ventilation Systems;

3.3.1.12 CSA B139 (2019) – Installation Code for Oil Burning Equipment;

3.3.1.13 CCME PN1326, Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products

3.3.1.14 Accessible Design for the Built Environment" (CAN/CSA-B651);

3.4 Demolition

3.4.1 To supply the space necessary, it may be required to remove walls as required, existing furnishing and equipment. Include in the specifications a section for properly remove and dispose material from the existing structure.

3.4.2 If load bearing walls are to be removed, the consultant is responsible to retain the necessary engineering expertise to ensure the removal of the wall does not affect the structural stability of the building and if any replacement or additional reinforcements are required.

3.4.3 Include specification for demolition and disposal in local landfill.

3.4.4 Since the building is a relatively new build (2011), there are no known designated substance in the structure.

3.5 Accessibility

3.5.1 Ensure the renovation of the lower portion of the building is compliant with Accessible Design for the Built Environment" (CAN/CSA-B651).

3.5.2 Modify external stair and corridors to permit accessible design requirements.

3.5.3 Ensure at least one of the cubicle and bathroom are accessible design compliant.

3.6 Electrical

3.6.1 The existing electrical power systems may not be entirely suited for the new architectural layout, additional building occupancy and new mechanical/ electrical systems.

3.6.2 Provide additional plugs and distribution for the additional offices and move any plugs as needed.

3.6.3 Install new or upgrade the existing sub-panel if required to handle the additional loads.

3.6.4 Provide single circuit, double circuit, GFCI, AFCI receptacles to meet code requirements and with additional receptacles as required to suit architectural and furniture layouts;

3.6.5 Provide receptacles for office workstations, coordinate locations with Client;

3.6.6 Include in the design a number of receptacles to have integral USB charging ports, i.e. kitchen counters, office spaces

3.6.7 Remove and properly dispose of obsolete receptacles.

3.6.8 Provide power to all M&E equipment, including domestic water heating equipment, building heating equipment, ventilation/ exhaust equipment, water pumps, sanitary pumps, heat tracing, control panels, etc.

3.6.9 The existing lighting systems are not entirely suited for the new architectural layout and new building occupancy. Provide LED indoor light fixtures will be controlled by switches, timers/motion sensors. Illumination levels to meet the Illuminating Engineering Society (IES) standards.

3.6.10 Remove and properly dispose of obsolete light fixtures and switching devices.

3.6.11 Provide cable trays, tracks or drops to connect communications without the need for exposed cables and wiring on the floor.

3.7 Mechanical – HVAC

3.7.1 The existing heating system may not entirely be suited for the new architectural layout and new building occupancy.

3.7.2 Where required, demolish and properly dispose of the existing venting, ductwork, grilles and controls;

3.7.3 Specify HVAC systems that will be able to address the new layout and usage.

3.7.4 Move duct work and equipment as necessary to provide heating and ventilation as required to the new layout;

3.7.5 Determine if additional HRVs, larger HRVs or heating systems are required to provide the required occupant comfort;

3.7.6 Protect equipment and components against freezing. Insulate piping to minimize heat loss and as required to maintain design temperature at every terminal device.

3.7.7 Retain as much of the current lines and HVAC system as possible;

3.7.8 Include commissioning of the system within the specifications.

3.8 Mechanical – Plumbing

3.8.1 The existing plumbing systems may not be entirely suited for the additional occupancy. The plumbing systems may need to be upgraded and additional lines will be required.

3.8.2 The building is connected to a water and sewage tank system. The Consultant shall confirm whether the sanitary service is adequately sized for the plumbing design loads and upsize the sanitary service if required. The Consultant shall upgrade the sanitary drainage system to suit the new plumbing fixture layout.

3.8.3 Where possible, all sanitary drainpipes shall be located away from exterior walls to minimise the risk of freezing.

3.8.4 Heat trace sanitary drain/ sewer pipes to prevent freezing, where required.

3.8.5 Demolish and remove laundry equipment and connection for washer, dryer and shower.

3.8.6 Convert the existing washroom, shower and laundry room to 2 separate unisex bathrooms with one of the bathrooms as a wheelchair accessible

3.8.7 Provide low flow fixtures meeting requirements of the National Plumbing Code.

3.9 Safety and Warning Devices

3.9.1 Photoelectric CSA/ULC certified Smoke Detector and CSA/ULC certified Carbon Monoxide Alarm. Smoke alarms must be hardwired with battery back-up, quantity and location as required by code.

3.9.2 If required, provide new exit signs as required by code.

3.10 Schedule

3.10.1 The tentative schedule is listed below in table 1.

3.10.2 The consultant shall advise and justify any deviations

3.10.3 Allow for 2 weeks for review and comments before continuing with next submission unless otherwise directed by the Department Representative.

Table 1: Schedule

Activity	**Completion date**
Award	July 2023
Kick off meeting	2 weeks of award
Concept Draft	2 months of award

Design Development Draft	2 months after Final Concept
Construction Documents (60%)	2 months after Final Design Development
Construction Documents (90%)	1 month after Final 60% Drawings
Construction Documents (Final)	1 month after 90% Drawings
Construction Start:	TBD
Substantial Completion:	TBD

4 Deliverables

4.1 RS1 - Concept Draft

4.1.1 Intent

4.1.1.1 The objective of the Concept Draft strategies to explore three distinctly different design options and to analyze them against the project requirements.

4.1.1.2 The Consultant Team will explore two 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.

4.1.1.3 The Concept 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 design. Out of this process a Concept Design option will be accepted and authorization to proceed to the next phase.

4.1.1.4 Design Development will be based on the accepted Concept Design.

4.1.1.5 The PCA Departmental Representative, in concert with others shall approve one option to be further developed.

4.1.2 Scope and Activities

4.1.2.1 Review, validate and update the details of the requirements, including space data sheets,

4.1.2.2 Prepare a minimum of two (2) Schematic Design options,

4.1.2.3 Analyze each option with regard to the project goals including cost and schedule,

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

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

4.1.2.6 Provide and / or coordinate all project requirements,

4.1.2.7 Coordinate all services with the Departmental Representative.

4.1.3 Deliverables

4.1.3.1 Concept design documents illustrate the functional relationships of the project elements as well as the project's scale, layout and character, based on the above requirements, the schedule, and the budget.

4.1.3.2 Prepare and submit, for review and approval by the PCA Departmental Representative, a Concept Design. Revise as required by the Departmental Representative.

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

4.1.3.4 The submission are to include (but not limited to) the following:

- Updated space layout including base building requirements and room data sheets
- Statement of design principles for all disciplines,
- Drawings, renderings and supporting 3D visualization illustrating the building interior / exterior, site,
- Risk Assessment Report,
- Report on any deviations that will affect cost or schedule and recommend corrective measures,
- Description of implementation plan,
- Updated detailed schedule,
- Class 'C' Estimate,
- Submit Project Log tracking all approved major decisions including those affecting changes to project scope, budget and schedule.

4.2 RS2 – Design Development

4.2.1 Intent

4.2.1.1 This stage will further develop the design option selected for refinement of the Concept 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.

4.2.2 Scope and Activities

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

4.2.2.2 Review, validate and update details of program requirements, and base building requirements with PCA,

4.2.2.3 Update design, layout and room data sheets as required,

4.2.2.4 Expand and clarify the Concept Design intent for each design discipline,

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

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

4.2.2.7 Analyze the constructability of the project and advise on the construction phasing process and duration,

4.2.2.8 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,

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

4.2.2.10 Confirm all aspects of the proposed Site design development.

4.2.3 Details by Discipline

4.2.3.1 Architectural

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

4.2.3.1.2 Floor plans of each floor showing all renovated spaces and incorporation into existing spaces. Include all necessary circulation areas, stairs, and ancillary spaces anticipated for service use. Indicate building grids, modules, and key dimensions. Include roof plans.

4.2.3.1.3 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.

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

4.2.3.1.5 Reflected ceiling plans.

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

4.2.3.1.7 Plans and typical details for Built-in Furniture and office spaces.

4.2.3.2 Civil

4.2.3.2.1 Further refined site plans showing trucked site services locations and building service connections referenced to proposed building outlines, site access roads, parking, fire routes and walkways. Include existing and proposed grades and drainage improvements (if any).

4.2.3.2.2 Coordinate with the Structural requirements for piling or other reinforcements to address lean/tilt of building.

4.2.3.2.3 Include placement of new bases for flagpoles.

4.2.3.3 Structural

4.2.3.3.1 Provide detailed description of structural design concept to resist seismic, snow and wind loads.

4.2.3.3.2 Provide detailed description of structural design concept addressing current lean/tilt of building and the ability to resist progressive collapse caused by natural or manmade disasters.

4.2.3.3.3 Structural drawings indicating modifications or new structural systems, structural materials, cladding details, fireproofing methods and other significant or unusual details.

4.2.3.3.4 Drawings shall indicate all design loads, e.g. dead and live loads on all plans with atypical loads marked.

4.2.3.4 Mechanical

4.2.3.4.1 Develop the design in detail with the proposed option

4.2.3.4.2 Site Plan showing service entrances for trucked water supply, water tank, trucked sewage line and sewage tank.

4.2.3.4.3 Drawings showing preliminary sizing of ventilation and heating systems showing locations, and all major equipment layouts in the mechanical room.

4.2.3.4.4 Drawings of plumbing system, showing routing and sizing of major lines and location of pumping and other equipment where required.

4.2.3.4.5 Update the energy analysis and energy budget.

4.2.3.4.6 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.

4.2.3.4.7 Analysis of selected equipment and plant with schematics and calculations sufficient to justify the economy of the selected systems.

4.2.3.4.8 Describe the mechanical systems to be provided and the components of each system including mechanical ancillary devices needed to support emergency power systems.

4.2.3.4.9 Explain what acoustical and sound control measures are to be included in the design.

4.2.3.5 Electrical / Telecom

4.2.3.5.1 For the selected option update the electrical design synopsis including telecom drops and connections to each work area. Provide data on the total connected load, the maximum demand and diversity factors, and the sizing of the emergency load.

4.2.3.5.2 Identify Utility requirements and indicate short circuit information at point of entry.

4.2.3.5.3 Elaborate on proposed emergency power scheme and provide preliminary installation details for emergency generator installation(s).

4.2.3.5.4 Indicate metering locations on distribution diagram.

4.2.3.5.5 Provide typical lighting, power and telecommunication system details for all workspaces.

4.2.3.5.6 Include lighting design and control schemes for typical lighting arrangements.

4.2.3.5.7 Elaborate on exterior lighting scheme. Provide typical fixture concepts.

4.2.3.5.8 Provide a fire alarm riser diagram.

4.3 RS3 – Construction Documents

4.3.1 Intent

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

4.3.1.2 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.

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

4.3.1.4 Construction documents shall be prepared in four phases as follows with progressive submissions for review and approval by PCA.

4.3.1.5 60% indicates substantial technical development of the project - well advanced architectural and engineering plans, elevations, sections, details, schedules and specifications,

4.3.1.6 90% is the submission of nearly complete Construction Documents ready for tender call,

4.3.1.7 Final Submission incorporates all revisions required in the 90% version and is intended to provide the Departmental Representative with complete Construction documents ready for tender call.

4.3.1.8 Activities are similar at all three stages (60%, 90% and 100%); completeness of the project development shall reflect the stage of a submission.

4.3.1.9 The Final Submission shall be in English.

4.3.2 Scope and Activities

4.3.2.1 Obtain Departmental Representative's approval for Construction Documents submissions (60%, 90% and final),

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

4.3.2.3 Clarify special procedures,

4.3.2.4 Submit drawings and specifications at the required stages

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

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

4.3.2.7 Review and confirm the Class 'C' estimate with the 60% submission.

4.3.2.8 Prepare a Class 'B' estimate for submission with the 90% submission.

4.3.2.9 Prepare a final Class 'A' estimate with the 100% submission for each tender package including estimated annual cash flows during projected construction period,

4.3.2.10 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:

4.3.2.10.1 Final code statement;

4.3.2.10.2 Final zoning data summary;

4.3.2.10.3 Final fire separations and life safety plans;

4.3.2.10.4 100% 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.

4.3.2.10.5 Sign and seal one (1) set of 100% complete construction documents for building permit application; and

4.3.2.10.6 Provide necessary follow-up regarding building permit application.

4.4 Allowance for Travel and Disbursements

4.4.1 A $10,000 allowance will be allocated for the Consultant member(s) to travel to Pond Inlet. This allowance is expected to cover 2 person return trip, ie. one person traveling twice or two people traveling once.

4.4.2 The Consultant will be reimbursed the authorized travel and living expenses reasonably and properly incurred in the performance of the Work, at cost, without any allowance for profit and/or administrative overhead, in accordance with the meal, and private vehicle allowances specified in Appendices B, C and D of the *National Joint Council Travel Directive*, and with the other provisions of the directive referring to "travellers", rather than those referring to "employees". Canada will not pay the Contractor any incidental expense allowance for authorized travel.

All travel must have the prior authorization of the Project Authority.

All payments are subject to government audit.

Estimated Cost: $ 10,000.00

4.4.3 The allowance does not include the consultant fees. The consultant time is covered in the section RS1 to RS3 above. All travel must have the prior authorization of the Project Authority.

4.4.4 All payments are subject to government audit,

4.4.5 This allowance does not include any travel required by the consultant team for internal coordination and is for the sole purpose of traveling to Pond Inlet for on site work requirements.

4.5 OS1 – Tender Phase Services

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

4.5.2 Coordinate all activities with the Departmental Representative or Construction Manager (if used by Parks Canada)

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

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

4.5.5 Make recommendations for issue of addenda as a result of formal or informal inquiries as required.

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

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

- The completeness and compliance with tender requirements of tender submissions in all respects.
- The effect of alternatives and qualifications, which may have been included in the tender.
- Evaluation and explanation of variations of the tender cost which exceed 30% of the pre tender estimate.

- The bidders' capability to undertake the full scope of work.

4.5.8 If tenders exceed the pretender estimate by 30% or more, the consultant will work with Parks Canada Representative to bring the construction value to available funding. Cost of redesign will be negotiated if and when required.

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

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

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

4.5.12 Deliverables

4.5.12.1 Electronic copes of drawings and specifications,

4.5.12.2 Addenda as required,

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

4.5.12.4 Updated cost estimate and schedule,

4.5.12.5 Submit to the Departmental Representative 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.

4.5.12.6 Prepare an integrated 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.

4.6 OS2 – Construction and Contract Administration

4.6.1 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.

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

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

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

4.6.5 Keep the PCA 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,

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

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

4.6.8 Provide cost advice during construction,

4.6.9 Advise the PCA Departmental Representative of all potential changes to scope for the duration of the implementation,

4.6.10 Review the Contractor's submittals,

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

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

4.6.13 During the warranty period, investigate all defects and alleged defects and issue instructions to the Contractor,

4.6.14 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,

4.6.15 Conduct a final warranty review.

4.6.16 Confirm that the building permit has been issued.

4.6.17 Ensure Workplace Compensation Board (WCB) and relevant inspection agencies were notified.

4.6.18 Finalize occupancy permit with authorities having jurisdiction,

4.6.19 Travel during this portion of the work will be addressed as per section 4.7 above.

4.6.20 Deliverables

- 4.6.20.1 Written reports from site visits including persons involved,
- 4.6.20.2 Written reports on the progress of the work and the cost of the project at the end of each month and/or progress claims,
- 4.6.20.3 Additional detail drawings when required to clarify, interpret or supplement the Construction Documents,
- 4.6.20.4 Post contract drawings.
- 4.6.20.5 Interim or Final certificates,
- 4.6.20.6 Debrief of Commissioning activities outlining the commissioning process (if applicable), major activities, and lessons learned from this project,
- 4.6.20.7 Finalize the Systems Operation Manual and O&M Manual to reflect as-commissioned operation and maintenance of each building system
- 4.6.20.8 Warranty deficiency list,
- 4.6.20.9 Update Project Log tracking all approved major decisions including those affecting changes to project scope, budget and schedule,
- 4.6.20.10 Report on Final Warranty Review,
- 4.6.20.11 Prepare an integrated 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.

4.7 Allowance for Travel and Disbursements

4.7.1 A $10,000 allowance will be allocated for the Consultant member(s) to travel to Pond Inlet. This allowance is expected to cover 2 person return trip, ie. one person traveling twice or two people traveling once.

4.7.2 The Consultant will be reimbursed the authorized travel and living expenses reasonably and properly incurred in the performance of the Work, at cost, without any allowance for profit and/or administrative overhead, in accordance with the meal, and private vehicle allowances specified in Appendices B, C and D of the *National Joint Council Travel Directive*, and with the other provisions of the directive referring to "travellers", rather than those referring to "employees". Canada will not pay the Contractor any incidental expense allowance for authorized travel.

All travel must have the prior authorization of the Project Authority.

All payments are subject to government audit.

Estimated Cost: $ 10,000.00

4.7.3 The allowance does not include the consultant fees. The consultant time is covered in the section OS1 to OS2 above. All travel must have the prior authorization of the Project Authority.

4.7.4 All payments are subject to government audit,

4.7.5 This allowance does not include any travel required by the consultant team for internal coordination and is for the sole purpose of traveling to Pond Inlet for on site work requirements.

5 References

5.1 Nunavut good building practices

5.2 Federal, Territorial and Municipal Acts, Codes and Regulations

5.3 Applicable codes and references mentioned above.

APPENDIX A

Deficiencies
and
Photos

Figure 1

Figure 2

Figure 3

Figure 4

Figure 5

Figure 6

Figure 7

Figure 8

Figure 9

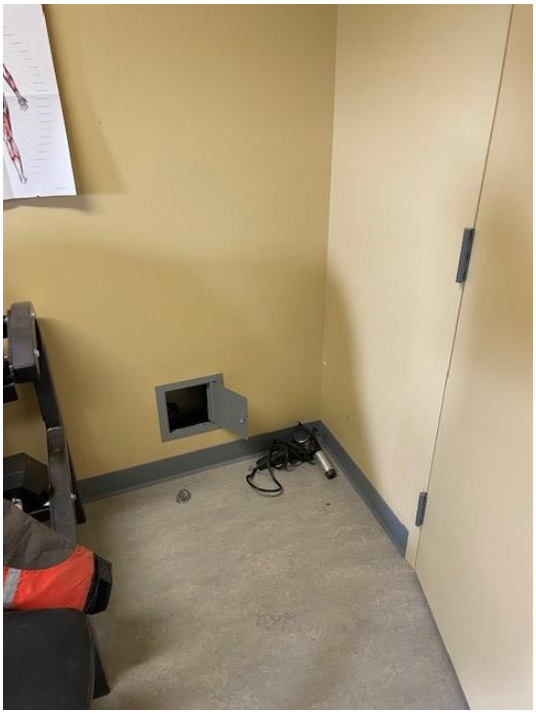


Figure 10

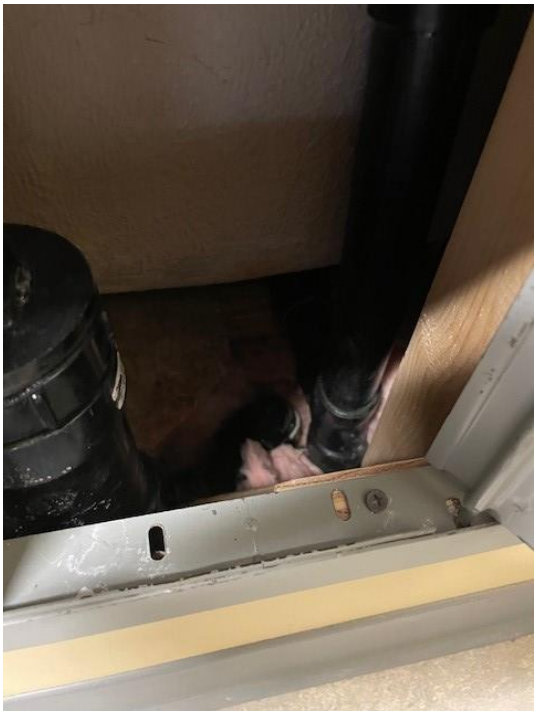


Figure 11

Building exterior and exterior doors

1) There is possible evidence that the office building has a slight downward lean towards the North/West corner of the building.

   Figure-1/2 shows the metal siding has bent on the existing outflow.

   Figure-3/5 shows the exterior door frames have slightly shifted and causing wear on the doorframe. Almost all exterior doors are experiencing this. The shifting is making it difficult to close doors, particularly on the lower level.

   Figure-4 the lower north/west exterior staircase has shifted. Staircase needs to be realigned with the building and repaired as needed.

2) Figure-6 Second level window glass is broken and requires replacement.

3) Minor roof repairs need to be complete. (no photo's)

Building interior

4) Figure-7 Located in the mechanical room there are numerous tiles that are damaged around the existing tank and need to be replaced.

5) Figure-8/9 Located in the upstairs bathroom behind a small poster is a water damaged wall.

6) Figure-10/11 on the lower lever located in the public safety room there is access to the bathroom plumbing. The water freezes and the staff are using a heat gun in the winter to melt the ice. Corrective action required to plumbing insulation should this area not be changed due to design.