INUVIALUIT
REGIONAL CORPORATION

Request for Proposals:

Reindeer Herder Cabins

Issued by:

Inuvialuit Regional Corporation (IRC)

107 Mackenzie Road

Inuvik, NWT X0E 0T0

Deadline for submissions: December 6, 2024

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1.0 Background

Inuvialuit Regional Corporation (IRC) was established in 1984 to manage the settlement outlined in the Inuvialuit Final Agreement (IFA) and to represent the collective interests of Inuvialuit. IRC's mandate is to continually improve the economic, social and cultural wellbeing of the Inuvialuit through the implementation of the Inuvialuit Final Agreement (IFA) and by all other available means. Today, IRC is comprised of 53 organizations with over 400 employees.

Inuvialuit Community Economic Development Organization (ICEDO), an operating unit of IRC, strives to support communities in the Inuvialuit Settlement Region (ISR) with achieving food sovereignty, supporting harvesting and distribution of northern foods, building capacity for beneficiaries and promoting the rich culture and heritage of the Inuvialuit people.

2.0 Objectives

The purpose of this RFP is to solicit participation in the design, construction and installation of three (3) cabins that can withstand the extreme climate of the ISR. The cabins are to be placed along the migratory route of the Inuvialuit reindeer herd, to house those employed by the IRC to manage the herd.

3.0 Project Scope

3.1. Overview

The cabins will be built off-site and transported to remote locations on the tundra, as shown in schedule 'A'. The three (3) cabins will be set on skis so they can be moved as necessary.

The work outlined serves as a guideline. Prospective vendors should provide a comprehensive proposal that covers all necessary components to meet the project's goals.

The facilities must be suitable for the Arctic environment, meet or exceed all current and anticipated regulations, and offer comfort and safety to the herders. They should be

designed to handle extreme weather, protect the permafrost, and ensure self-reliance given the remote location.

3.2 Cabin Requirements

Responses must consider the unique challenges of weather conditions, the logistical constraints and environmental factors including:

- **Community engagement:** Collaboration with the local community and Inuvialuit beneficiaries will be required during the design phases.
- **Extreme climate:** The region experiences long periods of harsh weather conditions, including extreme cold temperatures, high winds and snow accumulation. Cabins must be designed to withstand these conditions and provide adequate insulation to maintain comfortable indoor temperatures.
- **Insulation and energy efficiency:** Effective insulation is essential to prevent heat loss and reduce energy consumption in the Arctic climate. The homes will incorporate high-performance insulation materials and energy-efficient building envelopes to minimize heating requirements.
- **Structural considerations:** The contractor will be responsible for ensuring the structural design of the cabins meets the standards set by the Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists (NAPEG) for wind loads, snow loads, foundation design for permafrost conditions, along with any other requirements not listed above. The engineering and design will be at the cost of the contractor.
- **Transportation and logistics:** Transportation and logistics change throughout the year in the ISR. The proponent is responsible for being familiar with the transportation infrastructure and logistical challenges for delivering completed cabins to site. Considerations include transportation of the cabins, assembly, installation and leveling requirements in the individual locations.
- **Cold climate materials:** Selection of construction materials suitable for cold climates is crucial. Materials should be durable, resistant to frost damage, and capable of withstanding temperature fluctuations without compromising structural integrity.
- **Ventilation and moisture control:** Proper ventilation and moisture control are essential to prevent condensation, mold growth and indoor air quality issues.

- **Environmental impact:** The ecosystem is sensitive to human activities. Sustainable building practices and environmentally-friendly materials should be prioritized to minimize the ecological footprint of cabin construction in the Arctic.
- **Regulatory compliance:** Compliance with local building codes, regulations and permitting requirements is required and the responsibility of the contractor. The following links can be used as reference, however all proper permits and code compliance is the sole responsibility of the contractor.

    - Inuvik Building and Development Permits
    - Northern land use guidelines
    - Procedure for certification of pre-fabricated buildings
    - Series Manufactured Homes
    - National Building Code of Canada
    - National Fire Code of Canada
    - Canadian Standards Association Standard C22.1:24, Canadian Electrical Code Part I, 26th Edition, Safety Standard for Electrical Installations

3.3 Scope of Work

Cabins are expected to be constructed offsite, including skis, and moved via low impact vehicle (snowcat) to their prescribed locations. The proponent will be responsible for installation of the building, including levelling.

3.3.1 Cabin Requirements

- **Dimensions:** 16 feet wide by 20-foot-long footprint, with 16 feet by 16 feet open concept living area and a 4 foot by 16 foot cold porch.
- **Foundation:** Cabin to be built on permanent skis, but will require foundation blocking for levelling and placement on the tundra, which will be done by the contractor.
- **Finishings:** Interior walls and floor to be finished with plywood.
- **Living space:**
    - Kitchen will include small countertop for food preparation and placement of propane stove, along with a sink that drains into a bucket below. Built in

shelving above and below workspace required to accommodate kitchen peripherals. All kitchen peripherals provided by ICEDO.
    - Living space will include built-in bunk beds; all other requirements provided by ICEDO.
- **Heat and power:**
    - Heat will be generated by a woodburning stove, which will be provided by ICEDO for installation by the proponent.
    - Electrical wiring is required for lighting. Cabin will be powered by a generator (provided by ICEDO) requiring one external electrical connection on the outside of the cabin for all internal electrical requirements.
- **Other:** Cold porch should include small shelving units for storage.

3.3.2 Technical Design Criteria

Building envelope performance specifications for an extreme cold environment must address the unique challenges posed by low temperatures, heavy snowfall and high winds. All performance criteria are subject to the local and national codes governing the various aspects of the design. All testing data to satisfy technical specifications require third-party verification to the satisfaction of IRC and will require submittals to confirm conformance. The following specifications outline the minimum performance requirements for the building system.

- **Above-ground opaque building assemblies:** High-performance insulation materials to achieve an effective U-Value to minimise heat transfer through the building envelope must exceed National Energy Code of Canada (NECB 2017) requirements by a minimum of 20%. Ensure continuous insulation to limit thermal bridging within the walls, floors and roof.
- **Continuity of thermal barrier:** The design of the walls, floors, and all connections to other building components must demonstrate minimal thermal bridging and be designed to limit the continuity of thermal bridges where they occur during construction. This will potentially include secondary layers of insulation to maintain insulation continuity in areas such as windowsills and structural support of openings.

- **Window and door performance:** High-performance windows and doors with the following characteristics:
  - **Doors:**
    - One (1) door
    - Full door system U-values including frame and door leaf: 1.4 W/m^{2}K
    - Fully adjustable thresholds and hinges to allow for control over airtightness
  - **Windows:**
    - Three (3) windows; one on each side.
    - Full window system U-values including frame and glass: 0.95 W/m^{2}K
    - Solar Heat Gain Coefficient (SHGC): Minimum 0.40
    - Frames: Thermally broken fibreglass or demonstrated thermal equivalent.
    - Provide low-E coatings, and minimum triple pane windows to retain passive solar heat, reduce heat loss and improve thermal comfort.

  Ensure windows and doors are properly sealed and insulated to prevent air leakage, drafts, and condensation. Provide insulated frames, thermal breaks, and weatherstripping to enhance energy efficiency and cold weather performance. Provide window-to-wall connection details showing continuity of thermal and vapour barriers durable to withstand transportation, where applicable.
- **Roof design and snow management:** Design roofs with sufficient slope and structural support to shed snow and prevent accumulation. Specify snow retention systems, such as snow guards or snow fences, to prevent sudden snow slides and protect building occupants and surroundings. Metal roofing materials preferred with a minimum 25-year warranty.
- **Air tightness and moisture management:** Require an airtight building envelope to prevent cold air infiltration and heat loss, as well as condensation, frost accumulation, and moisture damage within the building envelope. Provide effective air and vapour barrier materials and installation techniques to minimise air leakage around windows, doors, penetrations, and joints. Conduct blower door tests to verify air tightness and identify areas requiring additional sealing, before transportation. Ensure proper ventilation and moisture removal systems to maintain indoor air quality and prevent mold growth.
- **Structural Integrity:** Design building envelope components, including walls, roofs, and foundations, to withstand transportation via skis to location, heavy snow loads

and high wind pressures. Steel frame will be required for the building to sustain transportation to site. Design foundations to maintain permafrost conditions.

- **Performance testing and verification:** Provide building envelope performance testing, and blower door tests, to verify compliance with specified performance criteria. Ensure construction quality assurance and on-site inspections to monitor installation practices and identify potential deficiencies. Provide and execute commissioning procedures to verify building envelope performance and functionality under extreme cold conditions before occupancy.
- **Indoor Air Quality and Materials:** The proponent will be required to use materials which have not been shown to affect human health in their manufacture, use or disposal. Materials used within the space will be limited to those that are not identified in the Living Building Institutes 'Red List' (https://living-future.org/red-list) including commonly used materials such as vinyl/PVC, adhesives and others. All proposed building materials will be submitted to a representative of ICEDO during the design process.
- **Exterior Cladding:** Materials used must be suitable for the location's climate and terrain. All cladding materials are to be durable at extreme low temperatures and will be limited to those that are not identified in the Living Building Institutes 'Red List' (https://living-future.org/red-list). All cladding materials must be able to be repaired in all weather conditions using mechanical attachment systems wherever possible. Metal preferred.
- **Heating and Electrical Systems:** Electrical connections on the exterior of the cabin should reflect that of a standard household electrical plug with the ability to connect an outdoor extension cord. All heating and electrical to be identified, including connections for generators.

4.0 Milestones

The following milestone schedule must be achievable to be considered for selection. All deadlines are 5:00 PM MST on the respective date. Late proposals may be disregarded:

- **Bid Start:** November 25, 2024
- **Clarifications questions due:** November 29, 2024
- **Bids close:** December 6, 2024

- **Bid award:** December 13, 2024
- **Cabin placement:** January 15, 2025

Should this project schedule need to be modified to meet the budget or logistical concerns of the project, the proponent should clearly identify these and provide an alternative project schedule targeting the completion date.

5.0 Bidding Requirements

5.1 Proposal Submission

Proposals must be submitted electronically to the contact below no later than the deadline on the cover of this RFP or modified through an addendum.

Include all required documentation, drawings, specifications, and cost estimates as outlined in the RFP.

5.2 Mandatory Submission Requirements

Safety documentation per the Northwest Territories Safety Act and OHS regulations, including:

- Demonstrate compliance with the Workers' Safety and Compensation Commission and either documentation demonstrating being registered and in good standing or ability to register with the commission.
- Demonstrate compliance with the applicable health and safety and worker compensation board or commission of the place of manufacture and documentation demonstrating being registered and in good standing, if units or significant components are manufactured in a different location.

The IRC reserves the ability to request additional safety documentation at any time.

5.3 Technical Specifications

- Demonstrate compliance with the requirements of this RFP.
- Demonstrate compliance with the technical design criteria.

- Outline a logistical plan for transportation and installation of units to be assembled on-site.

5.4 Indicative Design

- Provide drawings, renderings, images or other supporting documentation to demonstrate an indicative design that is representative of the technical specifications, costs and intent of the project outlined in this RFP.
- Provide information on proposed design to meet a high-performance energy use standard including heat recovery, environmental protection of systems, minimal building penetrations and other elements to demonstrate efficient building systems with minimal impact on the building envelope integrity.

5.5 Project Timeline

- Provide a detailed schedule outlining key milestones from design and construction to placement. .
- Include timeframes for transportation and installation.

5.6 Budget and Cost Proposal

- Submit a comprehensive cost proposal detailing all expenses associated with the project, including design, construction, transportation, installation and any additional costs
- Provide a breakdown of costs for each phase of the project - construction, transportation, placement and project closeout - as applicable to the method of construction.
- Costs must be shown per unit, however any reductions in cost due to cost efficiencies through providing all potential units should be noted in the cost breakdown.

5.7 Qualifications and Experience

- Provide information on the company's experience in designing and constructing housing projects in similarly remote locations, particularly challenging environments or locations with similar logistical concerns.
- Include details of relevant projects completed, references, and certifications.

5.8 Quality Assurance and Warranty

- Outline quality control measures to ensure the integrity and longevity of the cabins.
- Specify any warranties or guarantees offered for materials and workmanship.

6.0 Evaluation

- Proposals will be evaluated based on factors such as cost, technical feasibility, design innovation, experience and adherence to project timelines.
- The selection committee reserves the right to reject any or all proposals and to negotiate terms with selected bidders.
- Preference will be given to Inuvialuit owned businesses and/or proponents and proponents who can clearly demonstrate and agree that employment opportunities will be extended to beneficiaries of the Inuvialuit Final Agreement ("IFA"). This includes employment opportunities in the construction of the cabins under this agreement and shall use reasonable efforts to contract, unskilled and skilled labour in construction with those persons or businesses on the Inuvialuit business list. The requirement to demonstrate benefits to Inuvialuit beneficiaries will include construction activities conducted off-site and can be demonstrated as a percentage of total project cost and/or as a dollar value of the work performed.
- IRC reserves the right in its sole discretion at any time to: 1) extend or otherwise vary the due date; 2) revise or vary the RFP; 3) withdraw or cancel the RFP without award; and 4) waive any of the stated requirements set out by notifying all Proponents of the revision(s) in writing. No extension, variation, revision, withdrawal or cancellation of the RFP or any provision hereof shall be valid or binding on IRC unless it is in writing and is issued by a duly authorized representative of IRC.
- Any costs and expenses incurred by the proponent in the preparation of the Proposal or arising from, or in any way connected with the RFP, shall be borne solely by the proponent (including and without limitation, any subsequent discussions or negotiations with, or requests for clarification by, IRC). If IRC, in its absolute discretion, elects to not proceed with the RFP, rejects any or all proposals, or enters into any discussions, negotiations or clarification processes with one or more proponents or third parties, IRC will not be liable to any Proponent for any claims whatsoever, whether for costs or damages incurred by the Proponent in

participating in the RFP process (including, without limitation, any subsequent discussions or negotiations, if any), loss of anticipated profit, consequential damages or any other loss whatsoever.

- The Proponent, by submitting the proposal to IRC, agrees that it will not claim damages, costs or expenses for whatever reason relating in any way to the RFP and any resulting processes (including, without limitation, any subsequent discussions or negotiations, if any, or in respect of any competitive process) and waives any and all claims against IRC whatsoever, whether for costs, damages or expenses incurred by the proponent in preparing its proposal, in participating in the RFP process (including, without limitation, any subsequent discussions or negotiations, if any), loss of anticipated profit, or any other matter whatsoever related to this RFP and any resulting process, discussions or negotiations.

7.0 Confidentiality

All information provided in this RFP and any subsequent communications must be treated as confidential and proprietary to IRC. Proponents must not disclose any information related to this RFP without prior written consent.

8.0 Contact information

For inquires and proposal submissions, please direct all inquiries and correspondence to:

procurement@inuvialuit.com
Subject Line: RFP: Reindeer herder cabins

During the period from organization's/individual's receipt of this RFP until the award announcement is made and a contract is awarded, the organization/individual shall not contact any employee of IRC, or any of its affiliates, for additional information except in writing with copy to procurement@inuvialuit.com.