

Issue Date: May 23, 2025

Closing Date and Time: June 20, 2025 by 4:00 pm Eastern time

Deliver Proposals to:

e-mail: procurement@qia.ca

Official Contacts:

Matthew Hamp, Assistant Executive Director, Infrastructure **mhamp@qia.ca**, Justine Lywood, project manager **justine@plusarctic.ca**, **procurement@qia.ca**

Enquiries Deadline: Proponents should send any questions to the Official Contacts before 4:00 pm Eastern time on June 16, 2025.

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1 GENERAL

1.1. Purpose

The purpose of this Request for Proposals is to solicit Services for a qualified professional architectural and engineering firm(s) for design and construction management services.

QIA is seeking comprehensive architectural and engineering services to ensure the successful planning, design, tendering, construction supervision, and post-construction follow-up of a new multi-use building in Igloolik, Nunavut in line with applicable codes, quality standards, schedule, and budget.

1.2. Background

Qikiqtani Inuit Association ("**QIA**") is the Regional Inuit Association that democratically represents over 14,000 Inuit in the 13 communities of the Qikiqtani (Baffin) region. QIA is a Designated Inuit Organization ("**DIO**") under Article 39 of the Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada (the "**Nunavut Agreement**"). QIA is a non-profit society incorporated under the Societies Act (Nunavut).

QIA and its subsidiaries Qikiqtaaluk Corporation and Kakivak Association are involved in a wide range of advocacy, social development and economic development projects. For certainty, this RFP is only for QIA itself and not those subsidiaries. For more information about QIA, see qia.ca.

The successful Proponent will respect Inuit Qaujimajatuqangit, Inuit traditional knowledge, and will work towards ensuring Inuit knowledge is applied, to the extent possible, including valuing principles that are based on *Aajiiqatigiinniq* and *Piliriqatigiinniq*.

1.3. Definitions

"Inuit Firm" means an entity which complies with the legal requirements to carry on business in the Nunavut Settlement Area (as defined in the Nunavut Agreement), and that presents evidence that it is included on NTI's Inuit Firms Registry; and is:

(a) a limited company with at least 51% of the company's voting shares beneficially owned by Inuit, or

- (b) a cooperative controlled by Inuit, or
- (c) an Inuk sole proprietorship or partnership.

"Must" or **"Mandatory"** means a requirement that must be met before QIA considers the Proposal.

"Proponent" means the individual, company or firm submitting a Proposal in response to this RFP.

"**Proposal**" means the response to the RFP from the Proponent.

"Qikiqtani Business" means a business located in the Qikiqtani Region that is included in the Nunavummi Nangminiqaqtunik Ikajuut ("**NNI**") registry or can otherwise provide proof of meeting NNI registry requirements.

"**Related Business**" means a Nunavut business which is either directly or indirectly owned by Qikiqtani Inuit Association.

"**RFP**" means Request for Proposals, and specifically this Request for Proposals by Qikiqtani Inuit Association.

"Services" means the services that QIA is seeking as described in Section 3 of this RFP.

"**Successful Proponent**" means the Proponent which is chosen to provide the Services to QIA pursuant to this RFP.

2 INSTRUCTIONS TO PROPONENTS

2.1. Submitting Proposals

1) Proponents must submit an electronic copy of their Proposal in PDF form to QIA via email:

To: procurement@qia.ca

cc: <u>mhamp@qia.ca</u> and <u>justine@plusarctic.ca</u>

subject: A&E Services Multi-Use Community Building, Igloolik

- 2) The deadline for QIA to receive Proposals is June 20, 2025 by 4:00 p.m. Eastern time. If QIA has not received the Proposal by 4:00 pm on that date, it will not consider the Proposal.
- 3) All interested proponents should notify via email of their interest to submit a proposal on or before May 30, 2025:

to: procurement@qia.ca cc: mhamp@qia.ca and justine@plusarctic.ca subject: A&E Services Multi-Use Community Building, Igloolik

4) Amendments to a Proposal may be submitted up to the Submission Deadline,

marked with the Proponent's name and the RFP title.

2.2. Inquiries

1) Proponents may submit written questions about this RFP:

To:procurement@qia.ca

Cc:mhamp@qia.ca and justine@plusarctic.ca

- 2) QIA may respond to any inquiries by posting its responses to the same location that this RFP was posted, as well as email notification of addenda to all proponents that confirmed interest via email on or before May 30, 2025.
- 3) Proponents should not expect to receive verbal explanations or instructions from QIA. Any verbal explanations and instructions provided by QIA will not bind QIA, and Proponents should not rely on them. QIA's responses will be in the form of written amendments or clarifications which will form part of the RFP. Proponents are responsible to address any changes or requirements set out in any amendments or clarifications to the RFP.
- 4) The deadline for submitting questions is June 16, 2025 by 4:00 p.m. Eastern Time.
- 5) QIA may choose not to respond to written questions, to respond partially, or to reformulate questions.

2.3. Requirements of Proponents

The Successful Proponent will be an independent contractor of QIA and any proposed personnel will be employees or contractors of the Proponent, for whom the Proponent will be solely responsible.

The Successful Proponent shall provide a multidisciplinary team including:

- Lead Architect (Licensed) with supporting architects with experience in preschool design
- Civil/Structural Engineer
- Mechanical and Electrical Engineer(s)
- Quantity Surveyor/Cost Estimator
- Construction Supervisor

The Proponent is responsible for all federal, provincial and territorial taxes, assessments, levies, withholdings, insurance, worker's compensation premiums and other costs.

The Successful Proponent must provide QIA with proof of insurance required in this RFP. It must provide proof that it complies with all federal, territorial and municipal laws applicable to the Proponent, including Goods and Services Tax ("**GST**") and Worker's Safety and Compensation Commission ("**WSCC**") status. (Please note that WSCC in Nunavut is not reciprocal with other jurisdictions.) These documents do not need to be in the Proposal itself but must be provided to QIA before Contract award.

2.4. Terms and Conditions

2.4.1 By submitting a Proposal the Proponent acknowledges that it has read and agrees to be bound by all of the terms and conditions of this RFP.

2.4.2 QIA will not make any payments to Proponents for preparing a Proposal. Proponents will pay their own costs to prepare and submit a Proposal. QIA is not responsible for any costs, losses or damages (direct or consequential) that might be incurred by a Proponent in respect of any matter related to this RFP, including, preparation or delivery of a Proposal, or both, whether or not caused by any intentional or negligent act or omission of QIA.

2.4.3 Proponents may not amend their Proposals, but they may withdraw their Proposal at anytime before the submission deadline by providing written notice to QIA. Proponents may resubmit a Proposal before the submission deadline.

2.4.4 QIA may cancel this RFP at any time and reissue it for any reason without incurring any liability. Proponents have no claim against QIA because of QIA cancelling or reissuing the RFP.

2.4.5 QIA will not consider any Proposal that does not properly identify this RFP and the Proponent's name.

2.4.6 QIA will not consider a Proposal that is delivered to an address other than that provided in Section 2.1 of this RFP.

2.4.8 The Successful Proponent will enter into a Services Contract (the "**Contract**") in substantially the form attached to this RFP as Appendix A within thirty (30) days of Contract award. The Contract will describe the Services and Prices as well as any other terms that QIA and the Contractor agree upon. QIA may negotiate modifications with any Proponent who has submitted a Proposal, but all

Proponents shall submit with their Proposal a list of requested amendments to the Contract form attached as Appendix A to this RFP.

2.4.8 Once the Contract is entered into, if this RFP and the Contract are inconsistent, the Contract shall govern.

2.4.9 Both this RFP and the Contract are governed by the laws of Nunavut and the applicable laws of Canada.

2.4.10 If QIA amends this RFP, it will post the amendment in the same manner or location that this RFP was posted – and will notify all proponents who emailed identifying their interest in submitting a proposal.

2.4.11 QIA may reject any Proposal as non-responsive if it does not provide all information requested by this RFP. QIA may waive any deficiencies that it considers in its sole discretion to be non-material. QIA may contact a Proponent any time after it submits a Proposal to clarify information contained in its Proposal.

2.4.12 An evaluation committee of three individuals chosen by QIA in its sole discretion will review each Proposal based on the proposal requirements and criteria outlined in Section 4.0 of this RFP. QIA will determine the qualitive aspects of all Proposals against the evaluation criteria. QIA is not obligated to discuss with Proponents QIA's decisions regarding the qualitative aspects of the of Proposals.

2.4.13 QIA will evaluate Proposals as soon as practicable after the Proposal submission deadline.

2.4.14 No detail of any Proposal will be made public.

2.4.15 By submitting a Proposal, the Proponent consents to the copying of its Proposal so that it can be evaluated. The Proponent warrants that such copying will not violate the rights of any third parties. The Proposal and accompanying documents submitted by the Proponents are the property of QIA and will not be returned to the respective Proponents.

2.4.16 QIA will advise all Proponents whether or not their Proposal was successful as soon as practicable.

2.4.17 The RFP should not be construed as an agreement to purchase goods or services. The RFP does not commit QIA in any way to accept a Proposal or award a Contract to a Proponent or any other person.

2.4.18 All information shared with the Successful Proponent will be confidential and must not be disclosed to third parties. Designs created by the Successful Proponent and by any of its consultants, subconsultants, contractors and

subcontractors pursuant to the Contract shall be the exclusive property of QIA and any subcontract of the Successful Proponent for engagements in furtherance of this RFP and the Contract shall stipulate this requirement.

3 DESCRIPTION OF WORK

3.1. Project location

The project location is Igloolik, Nunavut. The Multi-Use facility will be built on an unsurvey lot on road R21, Plan 3460, as per the below image. Please see the Design Brief and Topographic surveys contained in the annexes of this RFP for more information.



3.2. Project Need and Background

Igloolik is an active community with two Elders groups (Inullariit and Ikayurasuartiit), a Recreational committee, Youth committee and a Wellness committee. The Hamlet of Igloolik Council (the "Council") have been actively trying to support these community groups and have passed a motion that the creation of an Inuit healing and wellness center is a community priority. Since 2019, community members, the Wellness Committee, and Council have been working towards establishing an appropriate governance structure and establishing Inuit-led healing and wellness services, including both one-on-one and group counselling by Inuit, for Inuit, as well as cultural and land-based programming. Often these groups rely on local businesses to donate space for meetings and gatherings.

The Igloolik District Education Authority has been running the Aboriginal Head Start (AHS) program in Igloolik since the early 1990s. The purpose of the program is to prepare students for entry into the Attagutaaluk elementary school. Participants in the AHS program have been universally recognized as being more successful in kindergarten than their peers, however, the AHS program enrollment is limited due to the current building size. Additionally, the program is currently being delivered in and an aged building that is well past its useful life.

QIA was approached by the Council in 2021 to discuss opportunities to collaborate and to see if any capital was available to support this much needed community infrastructure. QIA considers this project to be a vital initiative aimed at providing space for community-based programs in Igloolik.

QIA advanced a design brief and design development in response to the Housing, Infrastructure and Communities Canada's Green and Inclusive Community Building Program (GICB). This design brief and design package is contained in the RFP annexes. Some of the features of this design, such as the microgrid, were responding directly to requirements of the GICB funding program. QIA was unsuccessful in securing funding through this program, and as such, some of these features will need to be descoped to remain within budget.

This design brief and package are meant for reference purposes only. QIA does not expect Proponents to replicate this design.

3.3. Project Objectives

The following objectives of the Igloolik Multi-Use Community Building (the "Centre") are to be taken as the priority objectives, superseding those contained in the design brief.

The Centre must be designed to be:

- Energy efficient with the GN Good Building Practices as the baseline with intent to exceed this baseline
- Climate resilient
- Durable construction to withstand arctic climatic conditions
- Operationally straightforward and low maintenance for ease of operations in remote conditions
- Enable future connections to support a microgrid, solar panel installations, and heat pumps (as described in the design brief)
- Culturally responsive with flexible community spaces

The Centre must be designed to support:

- The projected community needs for +30 years
- The needs of the current and future AHS program
- The needs of the Igloolik Wellness Society
- A flexible space for Elder use
- A flexible space to support other community groups as identified

The Centre would ideally support:

- A welcoming entrance with ability to showcase artifacts and/or a small lending library
- The QIA Community Liaison Officer's office space

3.4. Scope of Services

The Services required shall be carried out in the following phases:

3.4.1 Phase I – Pre-Design / Conceptual Design

- Verification of client-provided data and feedback from user groups
- Development a conceptual design in close engagement with QIAs client representative.
- Presentation of concept with site layout, floor plans, basic elevations, and massing.
- Coordination with local planning/zoning authorities for compliance checks.
- Preliminary cost estimate

3.4.2 Phase II – Schematic and Detailed Design

All Engineering Drawings must be stamped by a NAPEG registered engineer and all architectural drawings must be stamped by an architect licensed (registered) to practice in Canada prior to issuing for tender.

- Finalization of architectural design.
- Production of all necessary drawings: site plans, floor plans, elevations, sections, and details.
- Integration of structural, mechanical, electrical, plumbing, and other required engineering disciplines.

QIKIQTANI INUIT ASSOCIATION REQUEST FOR PROPOSAL Architectural & Engineering Services Multi-Use Community Building in Igloolik, Nunavut

- Material specifications
- Furniture, Fittings and Equipment (FF&E) details
 - specify FF&E
 - prepare a furniture layout plan both fixed and loose furniture
 - ensure electrical, telephone and data outlets/sockets are properly coordinated with all fixed, and loose furniture layout.
 - provide all general FF&E specifications and supplier information
- Foundation Design Requirements:
 - fully research a foundation system suitable for the Centre taking into consideration Igloolik's climate, the site conditions, and geotechnical information.
- Final cost estimate and project timeline.
- Value engineering should the estimate exceed the budget
- Assist QIA in obtaining all necessary preliminary approvals and/or coordinating with the following authorities, and any other necessary authorities, having jurisdiction:
 - CGS Planning and Lands Division
 - Development Permit, Granular Permit
 - Hamlet officials
 - Municipal services, fire routes, by-law zoning, etc.
 - Territorial Authority
 - Office of the Chief Building Official

3.4.3 Phase III – Tendering and Procurement

NOTE: Construction is subject to the availability of funding. If funding is not available for the project, then QIA will not proceed with obtaining tender bids and the Successful Proponent may be advised to temporarily suspend services on the project until funding becomes available.

- 100% Construction Documents marked "Issued for Tender" on or before September 30th, 2025
- Assistance in responding to technical enquiries

3.4.4 Phase IV – Construction Supervision and Contract Administration

- Assist QIA in obtaining preliminary approvals from the following authorities having jurisdiction, and any other approvals deemed necessary:
 - Electrical permits CGS Electrical Inspector's Office
 - Fire Marshall's Office
 - Development Permit Provide necessary drawing package
 - Municipal departments as needed to comply with all municipal requirements such as services, fire safety and by-laws
- Site inspections and quality control during construction.
 - $_{\odot}$ ensure alignment on hold points for critical inspections, e.g.

vapour barrier etc.

- Foundation Construction Inspection Requirement:
 - provide site representation and inspection services during excavation and installation of foundation system to ensure contractor is in compliance with contract specifications and design intent.
 - Should a pile type foundation system be selected, the Successful Proponent shall provide pile installation monitoring services in compliance with the Nunavut Building Code Act.
 - The Proponents are free to engage and hire any qualified firm to conduct pile monitoring. The contract of the pile monitoring will be under the Consultant, and not QIA. The cost of the pile monitoring will be included in the bid as additional services.
- Review and approval of contractor submittals (shop drawings, materials, etc.).
- Issuing site instructions as needed.
- Prepare Contemplated Change Notices
- Maintain accurate logs of documents including, CCN's, CO's, RFI's, SI's, etc.
- Monitoring of contractor performance and schedule adherence.
- Certifying contractors' progress payment and invoices
- Coordination of handover activities including punch lists and final inspections.
- Complete Substantial Completion and Final Completion Inspections.
- Prepare, update and close deficiency lists at both Substantial and Final Completion

3.4.5 Phase V – Post-Construction / Warranty Period

- Final Completion Certificate and Occupancy Permit of the project
- Review of as-built drawings and operation & maintenance manuals.
- Record drawings for Closeout document completion
- Provide warranty services within a 10-12 month period after construction phase including an option for a building walkthrough within this time frame.
- Final Payment certification

4 PROPOSAL REQUIREMENTS AND EVALUATION

4.1. Mandatory Criteria

The following are mandatory requirements. QIA will not evaluate any Proposals that do not clearly demonstrate that they meet the mandatory criteria and will deem any such Proposal non-compliant:

Mandatory Criteria

A. One (1) complete Proposal must be submitted according to the submission instructions outlined in Section 2.1 and the cover page of this RFP, before the

Proposal submission deadline. Proposals must clearly indicate they are in response to this RFP.

B. The Proposal may be in Inuktitut but must include an English version.

C. All team members must have relevant qualifications and a minimum of 5 years' experience on similar projects in arctic and remote locations.

D. The Proponent must include in its Proposal at least two references from someone other than the Proponent or someone on the Proponent's team. QIA may contact the references. QIA will consult its own records and staff with respect to work the Proponent has done for QIA and take that into account in the scoring.

4.2. Desirable Criteria

QIA will assess the Proposals meeting the mandatory criteria against the following desirable criteria:

Desirable Criteria	Points Available
Relevant Experience and Qualifications*	60
Approach / Methodology	20
Workplan and Schedule	10
Cost Competitiveness**	10
TOTAL POINTS AVAILABLE	100

* For regulated professions and occupations, individuals must be licensed to offer their Services in Nunavut, and the Proposal must clearly state the details of each license. Any Proponent failing to clearly demonstrate that it meets these criteria may be subject to an award of 0 points in this category as a result.

** The cost competitiveness component is subject to adjustments for Inuit Firm, Qikiqtani Business or Related Business Status.

QIA will reject Proposals that do not meet these requirements.

QIA will keep confidential all Proposal ratings and will not make them public. QIA will not release details about other Proponent's Proposals.

4.3. Relevant Experience and Qualifications

Proponents should provide a concise company profile that provides an overview of the business, contact information, company structure, firm leadership, size, etc.

Proponents should provide details on their company and sub-consultants' past projects delivered in similar geographic and/or climate conditions as those experienced in Nunavut's high arctic communities, such as Igloolik.

Proponents are encouraged to provide details of any past projects delivered for Indigenous clients.

The submission should identify the organizational chart of the proposed team, including any sub-contractors; identify the main project contact, key project team members, their roles and responsibilities.

The project team shall be comprised of individuals and organizations who are licensed, certified, registered, or otherwise authorized to provide the necessary professional services to the full extent that may be required by territorial law and professional associations in the Territory of Nunavut at the time of the Submission Deadline.

For each key team member must identify examples of three past projects of similar scope. CVs must be annexed to the proposal and each CV should not exceed 2 pages.

By virtue of submission of a Proposal, the Proponent certifies that the project team are in compliance with the requirements of the above paragraphs. The Proponent's project team acknowledges that QIA reserves the right to verify any information provided for this RFP and that false or erroneous certification may result in the proposal declared non-responsive. The Successful Proponent shall be required to maintain such licenses and registration requirements throughout the period of the Services.

4.4. Approach / Methodology

The Proponent should propose an approach or solution to deliver the Services described in the RFP. Include any processes that will ensure that consistent high-quality work is provided, that will increase efficiency and that will otherwise provide benefit to QIA that are included in the price proposed. Explain why such processes are recommended.

Proponents should provide clear and concise details on the following as they pertain to delivery of this project:

- Team coordination and communication
- Quality control and assurance
- Risk management
- Stakeholder and community engagement
- Budget and cost control
- Schedule management

- Sustainability and resiliency
- Construction administration
- Project Close-Out
- Warranty particulars
- Field services
- Any others the proponent deems applicable

4.5. Workplan and Schedule

Proponents are to provide a detailed project work plan and schedule which outlines the Proponent's plan for proceeding with the various stages of the Services. The work plan should include sufficient detail to ensure the merits of the work plan, the schedule, and the likelihood of success.

4.6. Cost Competitiveness

The proposal should include the total project budget and detailed cost breakdown, all work components and all costs associated with delivering the project, including fees for services and, and estimates for field services and reimbursable expenses. Each sub-component should be itemized and priced separately with a grand total proposed contract value.

The pricing should be submitted in a tabular manner with reference to each of the 5 phases of Services. If additional services are proposed, they are to be included in the proposal pricing.

Include all estimated field costs and pertinent details associated with the anticipated travel requirements, including but not necessarily limited to airfare, accommodations, number of travel days, number of persons travelling, points of departure and lay-overs, and estimated field expenses. Clearly itemize all activity expenses to be subject to reimbursement.

Provide Hourly Rate Schedules for team members' time if required to provide additional services over and above those contemplated in this RFP.

Amounts must be stated in Canadian dollars and cents, excluding GST. The rates must remain valid through the term of contract, including any option years.

Cost competitiveness will be evaluated in the following manner:

The Proponent with the lowest cost receives all the points allocated for cost competitiveness, and all others are awarded points based on the following formula:

(lowest rate / Proponent's rate) x points allocated for cost competitiveness

4.7. Adjustment

QIA will consider the Proponent's Inuit and local status. QIA will adjust the cost competitiveness scores as follows:

- (a) Inuit Firm status, an adjustment of 5%;
- (b)Qikiqtani Business status, an adjustment of 5%;
- (c) Related Business status, an adjustment of 5%.

For the purposes of evaluation only, the prices submitted by Proponents in response to the Cost Competitiveness section of the RFP will be discounted by 5% for each adjustment granted.

The Proponent must provide evidence of the status it claims.

4.8. Declaration of Conflicts

Proponents shall provide a statement disclosing any known potential conflicts of interest and existing business relationships they may have with QIA, its affiliates, and its or their respective directors, officers and employees. QIA may reject a Proposal from any Proponent that it determines, in its sole and unfettered discretion, would result, or may result, in a conflict of interest or unfair advantage if the Proponent is awarded a Contract. Failure to disclose or provide false or insufficient disclosure of the nature and extent of any relationship the Proponent may have with any employee, officer or director of QIA shall be cause for rejection of the proposal and/or immediate termination of the Contract, in QIA's sole discretion.

5 TERMS OF PAYMENT

The Successful Proponent shall be reimbursed for Services provided according to the terms and conditions of the Contract.

6 APPENDIX: Services Contract

CCDC 31

CCĐC 31

Service Contract Between Owner and Consultant

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Name of Project

Apply a CCDC 31 copyright seal here. The application of the seal demonstrates the intention of the party proposing the use of this document that it be an accurate and unamended form of CCDC 31 - 2020except to the extent that any alterations, additions or modifications are set forth in supplementary conditions.

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CCDC 31 SERVICE CONTRACT BETWEEN OWNER AND CONSULTANT

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- A Consultant's Scope of Professional Services
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CCDC 31 is not intended to be used as a contract for Architectural Services.

CCDC 31 is the product of a consensus-building process aimed at balancing the interests of all parties on the construction project. It reflects recommended industry practices. CCDC 31 was prepared for use in a wide range of consulting assignments. The recommended levels of insurance shown in this document reflect common practice by Canadian municipalities and other owners for the design of physical infrastructure. However, these limits may be changed to reflect the nature, scale, value and risk profile of specific projects.

CCDC 31 can have important consequences. The CCDC and its constituent member organizations do not accept any responsibility or liability for loss or damage which may be suffered as a result of the use or interpretation of CCDC 31.

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AGREEMENT BETWEEN OWNER AND CONSULTANT

This Agreement made on theday ofin the year.by and between the parties

hereinafter called the "Owner"

and

hereinafter called the "Consultant"

The Owner and Consultant agree as follows:

ARTICLE A-1 PROFESSIONAL SERVICES

1.1 The Consultant shall provide Professional Services in connection with the following Project: (Insert a short description of the Project)

The location of the *Project* is as follows: (Insert the address, location or legal description of the site of the Project)

- 1.2 The *Consultant* shall provide *Professional Services* for the *Project* in accordance with Schedule A CONSULTANT'S SCOPE OF PROFESSIONAL SERVICES.
- 1.3 Any change to the *Professional Services* listed in Schedule A CONSULTANT'S SCOPE OF PROFESSIONAL SERVICES will be made by written order signed by both parties identifying the change plus adjustments, if any, to the *Consultant's* fees and *Reimbursable Expenses* and time for completion of the *Professional Services*.
- 1.4The Consultant shall commence the Professional Services by the
complete by the
Contract Time.day of
in the yearday of
in the yearand continue to completion in accordance with the

ARTICLE A-2 AGREEMENTS AND AMENDMENTS

- 2.1 The *Contract* supersedes all prior negotiations, representations or agreements, either written or oral, relating in any manner to the *Professional Services*, including the request for proposal documents that are not expressly listed in Article A-3 of the Agreement CONTRACT DOCUMENTS.
- 2.2 The Contract may be amended only as provided for in the Contract Documents.

CCDC 31 - 2020

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ARTICLE A-3 CONTRACT DOCUMENTS

- 3.1 The following sections and documents form part of and are incorporated into the Contract:
 - Agreement •
 - Definitions •
 - **General Conditions** .
 - Schedule A CONSULTANT'S SCOPE OF PROFESSIONAL SERVICES .
 - Schedule B REIMBURSABLE EXPENSES
 - Schedule C TIME-BASED RATES FOR PERSONNEL EMPLOYED BY THE CONSULTANT

* (Insert here, attaching additional pages if required, a list of all other Contract Documents e.g. supplementary conditions, Contract Time, Budget of the Work, other schedules and lists that are to be incorporated into the Contract.)

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ARTICLE A-4 REMUNERATION FOR THE PROFESSIONAL SERVICES

- 4.1 The Owner shall pay to the Consultant the fees and Reimbursable Expenses, as set forth below, for the Professional Services.
- 4.2 The fee, excluding any applicable Value Added Taxes, is comprised of one or more of the following: (delete subparagraphs that do not apply)
 - .1 A fixed fee of (\$) earned in accordance with paragraph 4.3 of this Article. .2 A percentage-based fee of %) of the Budget of the Work, the Construction percent (
 - Cost Estimate, and the Construction Cost as described in GC 4.2 PERCENTAGE-BASED FEE.
 - A fee based on time-based rates for personnel employed by the Consultant as described in Schedule C TIME-BASED .3 RATES FOR PERSONNEL EMPLOYED BY THE CONSULTANT.
 - .4 *Other: (Insert details)

4.3 When the fee for the *Project* shall be calculated as a fixed fee, it shall be apportioned as follows: Milestone/Task Amount

The fixed fees shall be applicable for (select one):

- [] the duration of the *Contract*
- [] twelve months from the effective date of this Agreement at which time the rates shall be increased by %, unless otherwise agreed in writing by the parties
- [] other (specify)
- 4.4 When the fee for the Professional Services is a percentage fee, the fee shall be apportioned among the Professional Services as follows:

Advisory Services	(%) of fee
Project Initiation Services	Ì	%) of fee
Conceptual Design and Review Services	Ì	%) of fee
Preliminary Design and Reviews Services	Ì	%) of fee
Detailed Design and Review Services	Ì	%) of fee
Construction Administration Services	Ì	%) of fee
On-Site Professional Services	Ì	%) of fee
Post Construction Services	(%) of fee
Total	(100 %) of fee as outlined in p

4.5 If through no fault of the Consultant, the execution of the Professional Services have been unduly delayed, the amounts and rates set forth in this Contract shall be subject to review and equitable adjustment.

paragraph 4.2.2 of this Article.

- Fees for time-based rates in paragraph 4.2.3 of this Article are subject to review and adjustment every months 4.6 from the date of the Contract.
- Reimbursable Expenses are the actual expenses, supported by receipts or invoices, which the Consultant incurred in providing 4.7 the Professional Services, and as identified in Schedule B - REIMBURSABLE EXPENSES to this Agreement plus an administrative charge of %.

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ARTICLE A-5 PAYMENT

- 5.1 The *Consultant* shall issue monthly invoices, or as otherwise agreed, for fees and *Reimbursable Expenses*, together with applicable *Value Added Taxes*.
- 5.2 The *Owner* shall pay the *Consultant* within 30 calendar days after the receipt of an invoice, or as such shorter period that may be prescribed by the law of the *Place of the Work*. The *Owner* shall notify the *Consultant* of any disputed amounts within 14 calendar days of receipt of invoice. In the event of a disputed invoice, only the disputed amount shall be withheld from payment and the *Owner* shall pay the undisputed amount.
- 5.3 Interest
 - .1 Should either party fail to make payments as they become due under the terms of the *Contract* or in an award by adjudication, arbitration or court, interest at the following rates on such unpaid amounts shall also become due and payable until payment: (1) 2% per annum above the prime rate for the first 60 days.
 - (2) 4% per annum above the prime rate after the first 60 days.

Such interest shall be compounded on a monthly basis. The prime rate shall be the rate of interest quoted by *(Insert name of chartered lending institution whose prime rate is to be used)*

for prime business loans as it may change from time to time.

.2 Interest shall apply at the rate and in the manner prescribed by paragraph 5.3.1 of this Article on the settlement amount of any claim in dispute that is resolved either pursuant to GC 7.1 – DISPUTE RESOLUTION or otherwise, from the date the amount would have been due and payable under the *Contract*, had it not been in dispute, until the date it is paid.

ARTICLE A-6 NOTICES IN WRITING

- 6.1 *Notices in Writing* will be addressed to the recipient at the address set out below.
- 6.2 The delivery of a *Notice in Writing* will be by hand, by courier, by prepaid first-class mail, or by other form of electronic communication during the transmission of which no indication of failure of receipt is communicated to the sender.
- 6.3 A *Notice in Writing* delivered by one party in accordance with the *Contract* will be deemed to have been received by the other party on the date of delivery if delivered by hand or courier or, if sent by mail, it will be deemed to have been received five calendar days after the date on which it was mailed, provided that if either such day is not a *Working Day*, then the *Notice in Writing* will be deemed to have been received on the *Working Day* next following such day.
- 6.4 A *Notice in Writing* sent by any form of electronic communication will be deemed to have been received on the date of its transmission provided that if such day is not a *Working Day* or if it is received after the end of normal business hours on the date of its transmission at the place of receipt, then it will be deemed to have been received at the opening of business at the place of receipt on the first *Working Day* next following the transmission.
- 6.5 An address for a party may be changed by *Notice in Writing* to the other party setting out the new address to be delivered in accordance with this Article.

Owner

name of Owner*

address

email address

Consultant

name of Consultant*

address

email address

I is intended that a specific individual or officer must receive the notice, that individual's name shall be indicated.

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ARTICLE A-7 LANGUAGE OF THE CONTRACT

- 7.1 When the *Contract Documents* are prepared in both the English and French languages, it is agreed that in the event of any apparent discrepancy between the English and French versions, the English/French* language shall prevail. * *Complete this statement by striking out the inapplicable term.*
- 7.2 This Agreement is drawn in English at the request of the parties hereto. La présente convention est rédigée en anglais à la demande des parties.

ARTICLE A-8 SUCCESSION

8.1 This Agreement shall enure to the benefit of and be binding upon the parties hereto, their respective heirs, legal representatives, successors, and permitted assigns.

In witness whereof the parties hereto have executed this Agreement by the hands of their duly authorized representatives.

SIGNED AND DELIVERED in the presence of:

WITNESS

OWNER

name of Owner

signature

name of person signing

WITNESS

signature

name and title of person signing

CONSULTANT

name of Consultant

signature

signature

name of person signing

name and title of person signing

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N.B. Where legal jurisdiction, local practice or Owner or Consultant requirement calls for:

(a) proof of authority to execute this document, attach such proof of authority in the form of a certified copy of a resolution naming the representative(s) authorized to sign the Agreement for and on behalf of the corporation or partnership; or
 (b) the affixing of a corporate seal, this Agreement should be properly sealed.

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DEFINITIONS

The following Definitions shall apply to all Contract Documents.

Additional Services

Those services that are not included or contemplated as *Professional Services* to be provided as identified in Schedule A – CONSULTANT'S SCOPE OF PROFESSIONAL SERVICES at the time this *Contract* was signed, which, with the written agreement of the *Owner* and the *Consultant*, are added to the *Professional Services* identified in Schedule A – CONSULTANT'S SCOPE OF PROFESSIONAL SERVICES.

Budget of the Work

The maximum amount, including contingency allowances, the Owner is prepared to spend on the Work.

Construction Administration Services

The services, if any, that relate to the administration of the *Construction Contract* and which are identified as such in Schedule A – CONSULTANT'S SCOPE OF PROFESSIONAL SERVICES to form part of the *Professional Services*.

Construction Contract

The written agreement between the Owner and the Contractor for the performance of the Work by the Contractor.

Construction Contract Time

The contract time of the Construction Contract.

Construction Cost

The actual cost of the Work, including overhead, permit fees, all applicable taxes, but excluding the value added taxes.

Construction Cost Estimate

The anticipated total *Construction Cost* at the scheduled time of construction, as agreed to by the *Consultant*, the accuracy of which corresponds to the level of detail of the *Construction Documents* available at the time of the estimate.

Construction Documents

All documents related to the *Work* issued by or through the *Consultant* or the *Owner* that are incorporated into the *Construction Contract* and all variations and modifications issued by or approved by the *Consultant*.

Consultant

The person or entity identified as such in the *Contract*. The *Consultant* is the entity licensed to practice in the province or territory of the *Place of the Work*.

Contract

The written agreement between the *Owner* and the *Consultant* to perform their respective duties, responsibilities and obligations as prescribed in the *Contract Documents* and represents the entire agreement between the parties.

Contract Documents

Those documents identified in Article A-3 - CONTRACT DOCUMENTS and amendments agreed between the parties.

Contract Time

The time schedule mutually agreed to by the Owner and the Consultant for the delivery of the Professional Services.

Contractor

The person or entity contracting with the Owner under a Construction Contract to perform all or part of the Work.

General Review

The visits to the *Place of the Work* at intervals appropriate to the progress of the *Work* that the *Consultant* considers, in the *Consultant*'s professional judgement, to be necessary to become familiar with the progress and quality of the *Work* and to determine that the *Work* is performed in general conformity with the *Construction Documents* and applicable statutes, regulations, codes, and bylaws of all authorities having jurisdiction. *General Review* does not require making exhaustive or continuous site reviews.

Instruments of Service

The drawings, plans, digital and physical models, designs, specifications, studies, reports, photographs, computer software, concepts, products, or processes if proprietary to the *Consultant*, surveys, calculations and other data required by the scope of *Professional Services*, and which were prepared by or on behalf of the *Consultant* and are deliverables for the execution of the *Work*.

Notice in Writing

A written communication between the parties that is transmitted in accordance with the provisions of Article A-6 – NOTICES IN WRITING.

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Other Consultant

A specialist, other than the Consultant or Subconsultant, engaged by the Owner for the Project.

Owner

The person or entity identified as such in the Contract.

Place of the Work

The designated site or location of the Work identified in the Contract.

Professional Services

Those services provided by the *Consultant* that are identified in Schedule A – CONSULTANT'S SCOPE OF PROFESSIONAL SERVICES, including those provided by *Subconsultants*.

Project

The total endeavour contemplated in the Contract of which the Professional Services and the Work may be the whole or a part.

Ready-for-Takeover

The date as defined in the *Construction Contract*, or if not defined in the *Construction Contract*, of substantial performance or completion of the *Work* as defined in the lien legislation applicable to the *Place of the Work*.

Reimbursable Expenses

Those expenses that are identified in Schedule B – REIMBURSABLE EXPENSES and which are payable by the *Owner* to the *Consultant*.

Shop Drawings

Drawings, diagrams, illustrations, schedules, performance charts, brochures, and other data that are to be provided by the *Contractor* or by others to illustrate details of portions of the *Work*.

Subconsultant

A person or entity engaged by the Consultant to provide part of the Professional Services.

Value Added Taxes

Those taxes as shall be levied upon the fees and *Reimbursable Expenses* by the Federal or any Provincial or Territorial Government and is computed as a percentage of the fees and *Reimbursable Expenses* and includes the Goods and Services Tax, the Quebec Sales Tax, the Harmonized Sales Tax, and any similar tax, the collection and payment of which are imposed on the *Consultant* by tax legislation.

Work

The total construction and related services required by the *Construction Contract*, but does not include the *Professional Services* and the services of *Other Consultants*.

Working Day

A day other than a Saturday, Sunday, statutory holiday, or statutory vacation day that is observed by the construction industry in the area of the *Place of the Work*.

GENERAL CONDITIONS

PART 1 GENERAL PROVISIONS

GC 1.1 CONTRACT DOCUMENTS

- 1.1.1 The Contract Documents are complementary, and what is required by one shall be as binding as if required by all.
- 1.1.2 Words and abbreviations which have well known technical or trade meanings are used in the *Contract Documents* in accordance with such recognized meanings.
- 1.1.3 References in the *Contract Documents* to the singular shall be considered to include the plural as the context requires.
- 1.1.4 References in the *Contract Documents* to regulations and codes are considered to be references to the latest published version as of the signature date of the *Contract*, unless otherwise indicated.

GC 1.2 LAW OF THE CONTRACT

1.2.1 The law of the *Place of the Work* shall govern the interpretation of the *Contract*.

GC 1.3 RIGHTS AND REMEDIES

- 1.3.1 Except as expressly provided in the *Contract Documents*, the duties and obligations imposed by the *Contract Documents* and the rights and remedies available hereunder shall be in addition to, and not a limitation of, any duties, obligations, rights, and remedies otherwise imposed or available by law.
- 1.3.2 No action or failure to act by the *Owner* or the *Consultant* shall constitute a waiver of any right or duty afforded to either of them under the *Contract*, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed to in writing.

GC 1.4 ASSIGNMENT

1.4.1 Neither the *Owner* nor the *Consultant* shall assign, sublet, or transfer an interest in the *Contract* without the written consent of the other, which consent shall not be unreasonably withheld.

PART 2 ROLES AND RESPONSIBILITIES

GC 2.1 CONSULTANT'S RESPONSIBILITIES

- 2.1.1 The *Consultant*'s responsibilities shall include those items identified as *Consultant* responsibilities in SCHEDULE A CONSULTANT'S SCOPE OF PROFESSIONAL SERVICES.
- 2.1.2 The parties acknowledge that the *Consultant* has obligations arising from the *Consultant*'s professional status and by law, which oblige the *Consultant* to exercise the *Consultant*'s judgement and take actions to protect the public.
- 2.1.3 The *Consultant* shall provide the *Professional Services* in accordance with the *Contract Documents* and with the degree of care, skill and diligence normally provided by consultants providing comparable services in respect of projects of a similar nature at the same time and in the same or similar locale to that contemplated by the *Contract*. The *Consultant* shall re-perform, at its own cost, *Professional Services* which do not meet the standard set out in this paragraph.
- 2.1.4 The *Consultant* shall provide the *Professional Services* in accordance with the *Contract Time* and as expeditiously as required for the orderly progress of the *Professional Services* and the *Work*.
- 2.1.5 The *Consultant*, following site entry protocol, shall have access to the *Project* site at all reasonable times as required to provide the *Professional Services*. While the *Consultant* is performing *General Review*, any comments on parts of the *Work* which have not been reviewed and which are unrelated to the *Professional Services*, shall be construed as being assumptions only and shall not be relied upon unless the *Owner* requests such review and comment as an *Additional Service*.
- 2.1.6 The *Consultant* may engage *Subconsultants* to provide a part of the *Professional Services*. If the *Owner* reasonably objects to a *Subconsultant* engaged by the *Consultant*, the *Owner* may request the *Consultant* to replace the *Subconsultant*. In this event, the *Owner* shall pay all costs resulting from termination and replacement of that *Subconsultant* and the parties shall adjust the fees and *Contract Time* of the *Professional Services* to take into account the termination and replacement.
- 2.1.7 The *Consultant* shall engage those *Subconsultants* under contracts that incorporate applicable terms and conditions of the *Contract*.
- 2.1.8 The Consultant shall coordinate the activities of its Subconsultants.

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- 2.1.9 If the *Owner* provides equipment or materials for the *Project*, the *Consultant* shall have the discretion to request such equipment or materials be tested or verified before being used for the purposes intended by the *Owner* or be validated by appropriate certification of compliance.
- 2.1.10 Upon receipt of the requested test or verification reports or certificate of compliance, the *Consultant* shall notify the *Owner* of the *Consultant*'s acceptance or refusal of equipment or materials concerned, with or without such reservations as the *Consultant* considers to be appropriate. If the *Owner* insists upon using an item to which the *Consultant* has objected or expressed reservations in writing or if the *Owner* declines to arrange to test, verify or certify an item as requested by the *Consultant*, the *Owner* shall be considered to have waived any recourse against the *Consultant* resulting from the use of such item or from a defect or inadequacy in such item.
- 2.1.11 The *Consultant* shall not accept a commission or other compensation from a manufacturer, supplier or contractor involved in the *Project*. The *Consultant* shall have no financial interest in the equipment or materials specified or recommended by the *Consultant* as part of the *Professional Services*. However, ownership of less than 1% of the securities issued by a company whose securities are traded on a recognized securities exchange shall not be deemed to constitute a financial interest.
- 2.1.12 Where the *Consultant* does not provide *Construction Administration Services* referred to in GC 3.3 CONSTRUCTION ADMINISTRATION in the *Contract* but the *Owner* nevertheless requests the *Consultant* to attend at the *Place of the Work* for any reason, the *Consultant* shall not incur any liability to the *Owner* for having attended at the *Place of the Work* unless the *Owner* makes a specific request to the *Consultant* in writing stating why the *Owner* has requested the *Consultant*'s attendance and the *Consultant* has agreed to attend for that sole purpose. In such event, the only responsibility of the *Consultant* shall be to respond to the *Owner*'s specific request provided such request falls within the mandate and competence of the *Consultant*.
- 2.1.13 Except to the extent there are errors or deficiencies that would be obvious or apparent to a *Consultant* qualified in the *Place of the Work* to provide services similar in scope, nature and complexity to the *Professional Services*, the *Consultant* is entitled to rely upon the accuracy and completeness of records, information, data, and specifications furnished by:
 - .1 the Owner, unless specifically stated otherwise;
 - .2 government authorities and public utilities; and
 - .3 manufacturers and suppliers of equipment, material or supplies.

Should such records, information, data, and specifications prove to be erroneous or inaccurate, the *Consultant* is entitled to make the necessary changes to the *Contract Documents* at the expense of the *Owner*.

- 2.1.14 The *Consultant* shall not be responsible for:
 - .1 the services of Other Consultants; or
 - .2 the advice of any independent expert engaged either by the *Owner* or the *Contractor*, whether or not recommended by the *Consultant*.
- 2.1.15 In addition to paragraph 2.1.14, and where the *Project* involves construction, the *Consultant* shall not be responsible:
 - .1 for the performance of the *Construction Contract*;
 - .2 for the performance by the *Contractor*, subcontractors, suppliers or any other contractors of the *Work* or for the failure of any of them to carry out the *Work* in accordance with the *Construction Contract*;
 - .3 for any and all matters arising from toxic or hazardous substances or materials;
 - .4 to control, direct or supervise the construction methods, means, techniques, sequences, or procedures of the *Contractor*, subcontractors, suppliers, or any other contractors;
 - .5 for acts or omissions of *Other Consultants*, or the *Contractor*, subcontractors, suppliers, or any other contractors;
 - .6 for safety precautions and programs required in connection with the *Work* or for general site safety at the *Place of the Work* under applicable health and construction safety legislation at the *Place of the Work*; or
 - .7 to make exhaustive or continuous on-site reviews.

GC 2.2 OWNER'S RESPONSIBILITIES

- 2.2.1 The *Owner* shall promptly fulfill all of the *Owner*'s responsibilities so as not to impede the *Consultant*'s orderly provision of the *Professional Services*.
- 2.2.2 The *Owner* shall advise the *Consultant* in writing of the *Owner*'s requirements in connection with the *Project*, including the *Budget of the Work*, and time constraints of the *Owner*.
- 2.2.3 The *Owner* shall make available to the *Consultant* all information or data pertinent to the *Project* which is required by the *Consultant* to provide the *Professional Services*.
- 2.2.4 The *Owner*, when so notified by the *Consultant*, may directly engage the services of a specialist to provide information or ancillary services that are necessary to enable the *Consultant* to provide the *Professional Services*.

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- 2.2.5 If the Owner fails to provide the information as described in paragraph 2.2.3 or engage a specialist as described in paragraph 2.2.4, the Consultant may give Notice in Writing to the Owner either to terminate the Contract or to be relieved of any responsibility for the consequences of the Owner's failure to provide such information or to engage such specialist.
- 2.2.6 The Owner shall ensure that where applicable, Other Consultants have adequate professional liability insurance, commensurate with the services they will provide for the Project.
- 2.2.7 The Owner shall, at the request of the Consultant before signing the Contract, and as requested, furnish to the Consultant reasonable evidence that financial arrangements have been made to fulfill the Owner's obligations under the Contract.
- 2.2.8 The Owner shall give the Consultant Notice in Writing of any material change in the Owner's ability to fulfill the Owner's payment obligations under the Contract during the performance of the Contract.
- 2.2.9 The Owner shall designate in writing an individual to act as the Owner's representative who shall have authority to transmit instructions to and receive information from the Consultant.
- 2.2.10 Unless otherwise stated in Schedule A CONSULTANT'S SCOPE OF PROFESSIONAL SERVICES, the Owner shall obtain required approvals, licences, and permits from municipal, governmental or other authorities having jurisdiction over the Project so as not to delay the Consultant in providing the Professional Services.
- 2.2.11 The Owner shall not enter into contracts with Other Consultants or Contractors that are deemed incompatible or inconsistent with the Professional Services to be provided under the Contract.
- 2.2.12 The *Owner* shall provide to the *Consultant*:
 - a copy of the *Contract Documents*; .1
 - all required cost estimating information; .2
 - the *Budget of the Work*; .3
 - .4 a time schedule based upon the *Professional Services* as described in Article A-1 – PROFESSIONAL SERVICES;
 - surveys describing the physical characteristics, legal limitations and utility locations for the site, including legal descriptions .5 of the site and adjoining properties, and any other information necessary to complete the *Professional Services*;
 - reports and appropriate professional recommendations of specialist consultants required by the Consultant; .6
 - inspection and test reports required by the Owner, the Consultant, Subconsultants, Other Consultants, authorities having .7 jurisdiction, or by the Contract Documents; and
 - .8 pertinent information on contracts with Other Consultants identified in Article A-3 - CONTRACT DOCUMENTS.
- 2.2.13 The *Owner* shall:
 - .1 examine requests for information or decisions submitted by the *Consultant*, and promptly provide the *Consultant* with the necessary information or decisions to avoid any delay;
 - obtain and pay the costs of all required consents, approvals, licenses, and permits from authorities having jurisdiction, unless .2 the Owner is not required to do so under the Contract Documents;
 - promptly inform the Consultant by Notice in Writing if the Contractor observes or otherwise becomes aware of any non-.3 conformity with the requirements of the Construction Documents. Nothing in this paragraph shall relieve the Consultant of responsibility for the Consultant's own errors and omissions;
 - .4 keep the Consultant informed of any changes in available information with respect to the Professional Services and the Work, whether identified by the *Owner* or otherwise, including changes in the *Owner*'s statement of requirements;
 - include the Consultant in any value analysis; and .5
 - include the Consultant in preparing Construction Cost Estimates. .6

PART 3 EXECUTING PROFESSIONAL SERVICES

GC 3.1 BUDGET OF THE WORK, CONSTRUCTION COST ESTIMATE, AND BIDS

- 3.1.1 If at any time before award of a Construction Contract, the lowest compliant bid or the lowest negotiated proposal exceeds the Construction Cost Estimate by more than 15%, the Owner shall:
 - .1 give the *Consultant* written approval of an increase in the *Budget of the Work*;
 - .2 co-operate with the Consultant to revise the Construction Documents to meet the latest Budget of the Work while complying with the requirements of the Contract;
 - rebid or re-negotiate the bids or proposals; or .3
 - .4 terminate this *Contract* in accordance with GC 5.1 TERMINATION AND SUSPENSION.
- 3.1.2 If the Owner chooses to proceed under paragraph 3.1.1.2, the Consultant shall revise the Construction Documents to meet the latest *Budget of the Work* while complying with the requirements of the *Contract*. Such revision shall be performed in accordance with a mutually accepted schedule, and shall be paid for by the Owner unless such revision is required as a direct result of the Consultant's failure to make reasonable efforts in the execution of the Professional Services to meet the Budget of the Work.

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- 3.1.3 If the *Owner* proceeds under paragraph 3.1.1.3, and the overage is not due to extraordinary market conditions, events, or other factors not reasonably foreseeable by or under the control of the Consultant, then the Owner may require the Consultant to: .1 modify the design; and

 - .2 provide other Professional Services, including Additional Services related to re-bidding or re-negotiating of a Contractor's proposal, for no additional fee.

This shall be the limit of the Consultant's responsibility under GC 3.1 - BUDGET OF THE WORK, CONSTRUCTION COST ESTIMATE, AND BIDS.

GC 3.2 ADDITIONAL SERVICES

- 3.2.1 The Consultant and the Owner acknowledge that the need for Additional Services not included or contemplated in the original Contract may arise for a number of reasons, including, but not limited to changes in the Budget of the Work, the Project scope, the construction schedule, or unforeseen conditions at the *Place of the Work*.
- 3.2.2 Upon recognizing a need to provide Additional Services, either the Consultant or the Owner shall promptly notify the other explaining the facts and circumstances, and shall endeavor to reach agreement on any adjustments to remuneration and time for provision the Additional Services. Such agreement shall be recorded in writing.
- 3.2.3 If there is no objection on the part of the Owner in a reasonable timeframe to provide the Additional Services, the Consultant is entitled to proceed with the Additional Services. There is no liability to the Owner for any Additional Services when the Owner has not been notified of the need for the Additional Services.
- 3.2.4 Failing agreement under paragraph 3.2.2 and subject to paragraph 3.2.5, the *Consultant* shall have no liability with respect to that which would have been an Additional Service.
- 3.2.5 Where the *Consultant* considers emergency services to be necessary to meet the *Consultant*'s professional obligations under paragraph 2.1.2, the Consultant shall advise the Owner and provide the Additional Services, and shall be at liberty to pursue recovery of the costs of such Additional Services.
- 3.2.6 If the Owner requires the Consultant to proceed with Additional Services before the Consultant agrees, or if the parties are unable to agree with respect to the Additional Services, the Owner may issue a Notice in Writing to proceed with the Additional Services prior to such agreement. If the Consultant believes that the Additional Services will increase or decrease the remuneration for Professional Services or Contract Time, the Consultant shall, within 5 Working Days of receiving such Notice in Writing or before carrying out the Additional Services, give written notice of its concerns and impacts to the Owner.
- 3.2.7 Any dispute unable to be resolved between the *Owner* and the *Consultant* with respect to *Additional Services* shall be resolved through GC 7.1 – DISPUTE RESOLUTION. The Consultant shall continue to provide all Professional Services not related to the Additional Services in dispute.

GC 3.3 CONSTRUCTION ADMINISTRATION

- 3.3.1 GC 3.3 CONSTRUCTION ADMINISTRATION applies only when and to the extent that the Owner requires Construction Administration Services under Schedule A – CONSULTANT'S SCOPE OF PROFESSIONAL SERVICES.
- 3.3.2 The Consultant shall have authority to act on behalf of the Owner but only to the extent provided in the Construction Administration Services.
- 3.3.3 The duties, responsibilities and limitations of authority of the *Consultant* as set forth in the *Construction Contract* shall be modified or extended only with the written consent of the Owner, the Consultant and the Contractor.
- 3.3.4 The Consultant shall manage or shall be included in all Notices in Writing, instructions, requests, claims, or other communications between the Owner and the Contractor and between the Owner and any Other Consultants.
- 3.3.5 The Consultant shall have the authority to reject Work that does not conform to the requirements of the Construction Contract.
- 3.3.6 The Consultant:
 - .1 shall have the authority to require special inspection or testing of *Work*, whether or not such *Work* has been fabricated, installed or completed;
 - shall have the authority to order minor adjustments in the Work that are consistent with the intent of the Construction .2 Contract, when these do not involve an adjustment in the Construction Cost or an extension of the Construction Contract *Time*; and
 - .3 shall comply with any health and safety precautions and programs related to the *Work*.
- 3.3.7 In addition to those limitations outlined in paragraphs 2.1.14 and 2.1.15, the *Consultant* shall not:
 - be required to provide *Professional Services* that involve modification of the *Construction Documents*, except as provided .1 under GC 3.3.6.2;

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- .2 be responsible to the *Owner*, the *Contractor* or any *Other Consultant* for the means, methods, techniques, sequences, procedures, and use of equipment for the *Project*, whether or not reviewed by the *Consultant*, which are employed by the *Contractor* or by an *Other Consultant* in executing, designing or administering the *Work*; or
- .3 be responsible for commissioning and start-up of any facility or equipment, unless specified in the Contract.
- 3.3.8 The *Consultant*, if specified in Schedule A CONSULTANT'S SCOPE OF PROFESSIONAL SERVICES and in the contracts among the *Owner* and *Other Consultants*, shall coordinate the activities of the *Other Consultants*.
- 3.3.9 No acceptance by the *Consultant* of the *Work* or of the services of the *Other Consultants*, whether express or implied, will relieve the *Contractor* or the *Other Consultants* from their responsibility to the *Owner* for the proper performance of the *Work* or their services.
- 3.3.10 *Shop Drawings* shall be reviewed by the *Consultant* only for the limited purpose of checking for general conformance with information given and the design concept expressed in the *Construction Documents*. The *Consultant*'s review of *Shop Drawings* is not for the purpose of determining the feasibility or constructability of the *Work* detailed within the *Shop Drawings* or the accuracy or completeness of instructions for installation.

GC 3.4 PAYMENT CERTIFICATION BY THE CONSULTANT

- 3.4.1 GC 3.4 PAYMENT CERTIFICATION BY THE CONSULTANT applies only when and to the extent that the *Consultant* is required to issue payment certifications under Schedule A CONSULTANT'S SCOPE OF PROFESSIONAL SERVICES.
- 3.4.2 The issuance of a certificate for payment shall constitute a representation by the *Consultant* to the *Owner*, based on the *Consultant*'s *General Review* and on review of the *Contractor*'s schedule of values and application for payment, that the *Work* has progressed to the value indicated, that to the best of the *Consultant*'s knowledge, information and belief, the *Work* observed during the course of *General Review* is in general conformity with the *Construction Contract*, and that the *Contractor* is entitled to payment in the amount certified.
- 3.4.3 The issuance of a certificate for payment shall not be a representation that the *Consultant* has made any examination to ascertain how and for what purpose the *Contractor* has used the monies paid by the *Owner*, or that the *Contractor* has discharged its legal obligations.

PART 4 PAYMENT

GC 4.1 PAYMENT

- 4.1.1 Payments for the *Consultant*'s approved invoices shall be made as described in Article A-5 of the Agreement PAYMENT and SCHEDULE B REIMBURSABLE EXPENSES.
- 4.1.2 Any expenditure not defined in Schedule B REIMBURSABLE EXPENSES, which the *Consultant* intends to invoice as a *Reimbursable Expense*, shall be approved by the *Owner* in writing as a *Reimbursable Expense* prior to the expenditure being incurred.
- 4.1.3 If the scope of the *Professional Services* is changed through no fault of the *Consultant*, the fees shall be equitably adjusted as mutually agreed in writing.
- 4.1.4 If the *Professional Services* are to be provided under time-based rates and *Reimbursable Expenses*, the *Consultant* shall provide, prior to the commencement of the *Professional Services*, an estimate of the cost of the *Professional Services* to be provided. These costs shall be monitored and verified from time to time and when the billing reaches 60% of the estimated cost, the parties shall review the progress of the *Project* and make the necessary adjustments if deemed appropriate.
- 4.1.5 The *Consultant* shall maintain records of *Reimbursable Expenses* and time records for *Professional Services* provided for which the fee is computed on an hourly basis. These records shall be maintained by generally accepted accounting principles and made available to the *Owner* at mutually convenient times during the term of the *Contract* and for a period not exceeding one year following completion of the *Professional Services*.

GC 4.2 PERCENTAGE-BASED FEE

- 4.2.1 GC 4.2 PERCENTAGE-BASED FEE shall apply only when the *Consultant*'s fee, or part thereof, is percentage-based as stated in Article A-4 of the Agreement REMUNERATION FOR THE PROFESSIONAL SERVICES.
- 4.2.2 The basis for calculating the percentage-based fee shall be as follows:
 - .1 before a Construction Cost Estimate is available, the fee shall be based on the Budget of the Work at the time of the invoice;
 - .2 after a *Construction Cost Estimate* is available, the fee shall be based on the *Construction Cost Estimate* at the time of the invoice; and

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.3 after the Construction Contract is entered into, the fee shall be based on the Construction Cost at the time of the invoice.

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- 4.2.3 The fee shall not be subject to any retroactive adjustments based on increases or decreases to the Budget of the Work or the Construction Cost Estimate as the Professional Services progress.
- 4.2.4 If the Owner furnishes labour or material below market cost, the amounts upon which the fee is calculated shall be adjusted as if all labour and material were paid for at market prices at the time of construction.

PART 5 GOVERNING PRINCIPLES

GC 5.1 TERMINATION AND SUSPENSION

- 5.1.1 The *Contract* shall terminate on the earliest of:
 - .1 the date when the *Consultant* has provided all of the *Professional Services* as defined in the *Contract*; or
 - the date of termination if termination occurs in accordance with this GC 5.1 TERMINATION AND SUSPENSION. .2
- 5.1.2 If a party is adjudged bankrupt, or makes a general assignment for the benefit of creditors because of its insolvency, or a receiver is appointed because of its insolvency, the other party may, without prejudice to any other right or remedy it may have, terminate the Contract by giving that party or receiver or trustee in bankruptcy Notice in Writing to that effect.
- 5.1.3 If the Consultant is adjudged bankrupt, or makes a general assignment for the benefit of creditors because of its insolvency, or a receiver is appointed because of its insolvency, the Owner shall be entitled to take possession of the Instruments of Service, subject to the rights of third parties, to finish the Professional Services by whatever method the Owner may consider expedient, but without undue delay or expense.
- 5.1.4 If the Consultant neglects to properly provide the Professional Services or otherwise fails to comply with the requirements of the Contract to a substantial degree, the Owner may, without prejudice to any other right or remedy the Owner may have, give the Consultant Notice in Writing of such defect or deficiency in Professional Services, including failing to meet the time schedule agreed upon in the Contract, and instruct the Consultant to correct the defect or deficiency within the 5 Working Days immediately following the receipt of such Notice in Writing.
- 5.1.5 If the defect or deficiency cannot be corrected within the 5 Working Days specified or in such other time period as may be subsequently agreed in writing by the parties, the Consultant shall be in compliance with the Owner's instructions if the *Consultant*:
 - .1 commences the correction of the defect or deficiency within the specified time;
 - .2 provides the Owner with an acceptable schedule for such correction; and
 - .3 corrects the default in accordance with the *Contract* terms and within such schedule.
- 5.1.6 If the *Consultant* does not correct the defect or deficiency in the time specified or in such other time period as may be subsequently agreed in writing by the parties, without prejudice to any rights or remedies the Owner may have, the Owner may:
 - .1 correct such defect or deficiency, and deduct the cost thereof from any payment then or thereafter due to the *Consultant*;
 - .2 terminate the Consultant's right to continue providing the Professional Services, in whole or in part; or
 - .3 terminate the *Contract*.

Such termination shall not relieve the Owner of the obligation to pay for Professional Services properly provided and Reimbursable Expenses properly incurred by the Consultant up to the date of termination and in the manner provided in the Contract.

- 5.1.7 If the Owner terminates the Consultant's right to continue with the Professional Services as provided in paragraphs 5.1.6.2 and 5.1.6.3, the *Owner* shall be entitled to withhold further payment to the *Consultant*, and:
 - .1 take possession of the Instruments of Service, subject to the rights of third parties; finish the Professional Services by whatever method the Owner may consider expedient, but without undue delay or expense; and
 - .2 charge the Consultant the amount by which the full cost of finishing the Professional Services exceeds the unpaid balance of the fees and Reimbursable Expenses; however, if such cost of finishing the Professional Services is less than the unpaid balance of the fees and Reimbursable Expenses, the Owner shall pay the Consultant the difference.
- 5.1.8 If the Owner is in default in the performance of any of the Owner's obligations under the Contract, including but not limited to the non-payment of fees and Reimbursable Expenses of the Consultant in the manner provided in the Contract, the Consultant may provide a Notice in Writing to the Owner that the default must be corrected.
- 5.1.9 If the Owner does not correct the default within 5 Working Days after receipt of such Notice in Writing, or if the default, other than a default in payment, cannot be corrected within those 5 Working Days, or if the Owner does not commence correction within such 5 Working Days or provide the Consultant with an acceptable schedule for such correction and correct the default within such schedule, the Consultant may suspend or terminate the Contract upon further Notice in Writing to the Owner.

- 5.1.10 If the *Owner* is unwilling or unable to proceed with the *Project*, the *Owner* may suspend or terminate the *Contract* by *Notice in* Writing sent to the Consultant. Upon receipt of such Notice in Writing, the Consultant shall not provide further Professional Services other than those reasonably necessary to suspend or terminate that portion of the Project for which the Consultant is responsible.
- 5.1.11 If the Owner suspends performance of the Professional Services at any time for more than 30 consecutive or non-consecutive calendar days through no fault of the Consultant, the Consultant may terminate the Contract upon providing a Notice in Writing to the Owner.
- 5.1.12 If the *Contract* is terminated under any of the conditions set out in paragraphs 5.1.8 to 5.1.10, the *Consultant* shall be entitled to be paid for all Professional Services provided and Reimbursable Expenses incurred, and for such demonstrable costs the Consultant may have sustained as a result of the termination.

GC 5.2 OWNERSHIP AND USE OF DOCUMENTS, PATENTS AND TRADEMARKS

- 5.2.1 The Instruments of Service are the property of the Consultant, whether the Project is completed or not. The Consultant reserves the copyright therein and in the Work performed therefrom. The Owner is entitled to keep a copy of the Instruments of Service for its records.
- 5.2.2 The *Consultant* retains ownership of all patents, trademarks, copyrights, industrial or other intellectual property rights resulting from the Professional Services or from the Instruments of Service which are developed or first reduced to practice by the Consultant in the provision of the Professional Services. The Owner shall not use, infringe or appropriate such proprietary rights without the prior written consent and compensation of the Consultant.
- 5.2.3 Provided the fees and *Reimbursable Expenses* of the *Consultant* are paid, the *Owner* shall have a non-exclusive license to use any proprietary Instruments of Service which relates to or results from the Professional Services and solely for purposes of constructing, using, maintaining, altering, and adding to the Project.
- 5.2.4 Any Instruments of Service developed by the Consultant under the Contract shall not infringe the patent, copyright, trademark or other intellectual property rights of another person. The Consultant shall indemnify the Owner against claims and costs (including legal costs) associated with the Consultant's infringement.
- 5.2.5 The Consultant shall retain the original of the Instruments of Service and of those parts of the Construction Documents which are generated by the Consultant, including computer-generated designs relating thereto, but excluding any physical models or graphic presentations specifically commissioned and paid for by the Owner.
- 5.2.6 Use of the Instruments of Service by the Owner for purposes other than in connection with the Project without notifying the Consultant and without the Consultant's prior written consent is done so at the sole risk of the Owner. The Owner shall indemnify the Consultant against claims and costs (including legal costs) associated with the Owner's improper use. The Consultant shall not be responsible for the consequences of any such improper use. The Consultant shall be entitled either to compensation for such improper use or to prevent such improper use, or to both.
- 5.2.7 If the Owner alters the Instruments of Service without notifying the Consultant and without the Consultant's prior written consent, the Owner shall indemnify the Consultant against claims and costs (including legal costs) associated with such improper alteration. The Consultant shall not be responsible for the consequences of any such improper alteration.
- 5.2.8 The Owner may not use the Instruments of Service without having paid the fees and Reimbursable Expenses of the Consultant. The Consultant is entitled to injunctive relief if the Consultant is not being paid for the Instruments of Service.
- 5.2.9 If building information modelling (BIM) is used for the *Project*, and the standard BIM Contract Appendix published by the Institute for BIM in Canada (IBC) is appended to the Contract, copyright for the model and model elements shall be as set out in the BIM Contract Appendix.

GC 5.3 CODES, ACTS AND BY-LAWS

5.3.1 The Consultant shall interpret building codes and by-laws as they apply to the Project at the time of design to the best of the Consultant's ability. As the Work progresses, codes, acts and by-laws may change, or the interpretation by an authority having jurisdiction may differ. In this event, the Owner shall compensate the Consultant for any additional Professional Services required in order to have the Work conform to such changes or interpretations of the authority having jurisdiction.

GC 5.4 CONFIDENTIALITY AND IDENTIFICATION

5.4.1 Where a confidentiality agreement exists, or as the *Owner* or *Consultant* otherwise expressly identify and require, each party to the Contract shall keep confidential all matters respecting technical and commercial issues relating to or arising from the performance of the Contract and shall not, without the prior written consent of the other party, disclose any such matters, except in strict confidence, to their respective Subconsultants or Other Consultants.

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5.4.2 The *Consultant* shall be identified on *Project* signage and promotional material whenever other *Project* design professionals are mentioned. The *Consultant* may refer to the *Project* in the *Consultant*'s promotional material with the *Owner*'s prior written consent.

PART 6 INSURANCE AND LIABILITY

GC 6.1 INSURANCE

- 6.1.1 All policies of insurance shall be written by insurers adequately licensed to underwrite insurance in the jurisdiction where the *Project* is located.
- 6.1.2 The Consultant shall carry professional liability insurance under a policy that insures the Professional Services, and that:
 - .1 has limits of not less than \$2,000,000 per claim and with an aggregate limit of not less than \$2,000,000 within any policy year, and a deductible not exceeding \$50,000, which shall be the responsibility of the *Consultant*; and
 - .2 is maintained continuously from the commencement of the *Professional Services* for a period of 2 years after the completion of the *Professional Services*.
- 6.1.3 The *Consultant* shall carry from the date of commencement of the *Professional Services* for a period of 2 years, or to the completion of the *Project*, whichever comes later:
 - .1 Commercial General Liability Insurance with limits of not less than \$5,000,000 per occurrence;
 - .2 Automobile Liability Insurance with limits of not less than \$2,000,000 per occurrence; and
 - .3 If owned or non-owned aircraft and watercraft are used directly or indirectly in the provision of the *Professional Services*, Aircraft and Watercraft Liability Insurance with limits of not less than \$2,000,000 per occurrence.
- 6.1.4 The *Consultant* shall require all *Subconsultants* engaged by the *Consultant* to carry professional liability insurance consistent with those required under the *Contract*.
- 6.1.5 The *Consultant* shall provide evidence of the insurance required in GC 6.1 INSURANCE prior to the commencement of the *Professional Services*, and shall include the *Owner* as "Additional Insured" with respect to the commercial general liability insurance policy, and note the coverage provided by the insurance policies shall not be cancelled without 30 calendar days' prior *Notice in Writing* to the *Owner*.

GC 6.2 INDEMNIFICATION AND LIMITATION OF LIABILITY

- 6.2.1 Subject to the limitations of liability set out in the *Contract*, each party shall indemnify the other party, to the extent of the fault or negligence of the indemnifying party, for damages and costs resulting from:
 - .1 a breach of contractual obligations under the *Contract* by the indemnifying party or anyone for whom that party is responsible; or
 - .2 negligent or faulty acts or omissions of the indemnifying party or anyone for whom that party is responsible.
- 6.2.2 The *Consultant*'s liability for claims which the *Owner* has or may have against the *Consultant* or the *Consultant*'s employees, agents, representatives and *Subconsultants* under the *Contract*, whether these claims arise in contract, tort, negligence or under any other theory of liability, shall be limited, notwithstanding any other provision of the *Contract*:
 - .1 to claims made by *Notice in Writing* within a period of 6 years after completion of the *Professional Services* or within such shorter period as may be prescribed by any limitation or statute in the jurisdiction in which the *Project* is located;
 - .2 in respect to losses of the type for which insurance is to be provided pursuant to GC 6.1 INSURANCE, limited to the insurance proceeds recovered under the applicable policy of insurance required in the *Contract*, or that which would have been recovered but for the *Consultant*'s failure to maintain such insurance, in no event to exceed the minimum insurance limits of the applicable policies of insurance defined in this *Contract*; and
 - .3 in respect to losses of the type for which insurance is not required to be provided in accordance with GC 6.1 INSURANCE, limited to the total amount of the *Consultant*'s fee and reimbursable expenses, or \$250,000, whichever is greater.
- 6.2.3 Notwithstanding the foregoing, the limitation of liability shall not apply to third parties asserting claims, for bodily injury, sickness, disease (including death), or destruction of tangible property, against either of the parties.
- 6.2.4 Neither party is liable to the other party in relation to the *Contract*, whether due to breach of contract, tort, negligence, warranty, strict liability or otherwise, for consequential or indirect loss or damages, including without limitation, loss of profits, loss of revenue or loss of anticipated business incurred by other party.
- 6.2.5 The obligation of either party to indemnify the other as set forth in paragraphs 6.2.1 and 6.2.2 shall be inclusive of interest and all legal costs.
- 6.2.6 The *Consultant* shall not be liable for the failure of any manufactured product or any manufactured or factory assembled system of components to perform in accordance with the manufacturer's specifications, product literature or written documentation.

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- 6.2.7 Where the *Consultant* is a corporation or partnership, the *Owner* and *Other Consultants* shall limit any claim they may have to the corporation or partnership, without liability on the part of any officer, director, member, employee, or agent of such corporation or partnership.
- 6.2.8 The *Consultant* is not responsible for the identification, reporting, analysis, evaluation, presence, handling, removal or disposal of hazardous substances at or adjacent to the *Place of the Work*, unless specified in Schedule A CONSULTANT'S SCOPE OF PROFESSIONAL SERVICES, or for the exposure of persons, property or the environment to hazardous substances at or adjacent to the *Place of the Work*.
- 6.2.9 This indemnification and limitation of liability shall survive the Contract.
- 6.2.10 The *Consultant* shall not be liable, in contract nor in tort, for:
 - .1 any changes made by the *Owner*, the *Contractor*, or other third parties to the *Consultant*'s design or to the *Construction Documents*;
 - .2 acts, omissions or errors of Other Consultants; or
 - .3 the result of any finding or interpretation with the *Construction Documents* rendered by *Other Consultants* in accordance with the *Construction Documents*.

PART 7 DISPUTE RESOLUTION

GC 7.1 DISPUTE RESOLUTION

- 7.1.1 Differences between the parties to the *Contract* as to the interpretation, application or administration of the *Contract* or any failure to agree where agreement between the parties is called for, herein collectively called disputes.
- 7.1.2 The *Owner* and the *Consultant* shall make all reasonable efforts to resolve disputes by amicable negotiations and agree to provide, on a without prejudice basis, frank, candid and timely disclosure of relevant facts, information and documents, to facilitate these negotiations.
- 7.1.3 In the event of an unresolved dispute, one party sends a *Notice in Writing* of dispute to the other party, which contains the particulars of the matter in dispute and the relevant provisions of the *Contract*. The responding party shall send a *Notice in Writing* of reply to the dispute within 10 *Working Days* after receipt of such *Notice in Writing* setting out particulars of this response and any relevant provisions of the *Contract*.
- 7.1.4 After a period of 10 *Working Days* following receipt of a responding party's *Notice in Writing* of reply under paragraph 7.1.3, the mediated negotiations shall be conducted, and a Project Mediator appointed, in accordance with the rules for mediation as provided in CCDC 40 'Rules for Mediation and Arbitration of Construction Industry Disputes' in effect on the date of the *Contract*.
- 7.1.5 If the dispute has not been resolved at the mediation or within such further period as is agreed by the parties, the Project Mediator shall terminate the mediated negotiations by giving *Notice in Writing* to the *Owner* and the *Consultant*.
- 7.1.6 By giving a *Notice in Writing* to the other party, not later than 10 *Working Days* after the date of termination of the mediated negotiations under paragraph 7.1.5, either party may refer the dispute to be finally resolved by arbitration under the rules of arbitration as provided in CCDC 40 in effect on the date of the *Contract*. The arbitration shall be conducted in the jurisdiction of the *Place of the Work*.
- 7.1.7 On expiration of the 10 *Working Days*, the arbitration agreement under paragraph 7.1.6 is not binding on the parties and, if a *Notice in Writing* is not given under paragraph 7.1.6 within the required time, the parties may refer the unresolved dispute to the courts or to any other form of dispute resolution, including arbitration, which they have agreed to use.
- 7.1.8 If neither party, by *Notice in Writing*, given within 10 *Working Days* of the date of *Notice in Writing* requesting arbitration in paragraph 7.1.6, requires that a dispute be arbitrated immediately, all disputes referred to arbitration as provided in paragraph 7.1.6 shall be
 - .1 held in abeyance until
 - (1) the *Contract* has been terminated; or
 - (2) the Consultant has abandoned the Professional Services, whichever is earlier; and
 - .2 consolidated into a single arbitration under the rules governing the arbitration under paragraph 7.1.6.
- 7.1.9 The paragraphs in GC 7.1 DISPUTE RESOLUTION shall survive suspension or termination of the Contract.
- 7.1.10 Nothing in this *Contract* shall be deemed to affect the rights of the parties to resolve any dispute by adjudication as may be prescribed by applicable legislation.

GC 7.2 SEVERABILITY

7.2.1 If any provision of the *Contract* is declared by a court of competent jurisdiction to be invalid, illegal, or unenforceable, such provision shall be severed from the *Contract* and the other provisions of the *Contract* shall remain in full force and effect.

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SCHEDULE A - CONSULTANT'S SCOPE OF PROFESSIONAL SERVICES

Indicate with a $$ in the appropriate column for each task listed below, including tasks not in the Contract and method of remuneration for tasks in the Contract.	Services not in the Contract	Included in fixed fee (paragraph 4.2.1 of Article A-4)	Included in percentage fee (paragraph 4.2.2 of Article A-4)	Fee on time-based rates (paragraph 4.2.3 of Article A-4)	Other (paragraph 4.2.4 of Article A-4)
1. ADVISORY SERVICES The Consultant shall:					
.1 prepare and periodically update a <i>Construction Cost Estimate</i> and <i>Construction Contract Time</i> ;					
.2 assist in the preparation of pre-construction <i>Project</i> operating cost budgets;					
.3 prepare for and attend a public participation or information program;					
.4 prepare for and participate in a value analysis program;					
.5 prepare reports;					
.6 prepare operational studies;					
.7 prepare and deliver renderings;					
.8 prepare and deliver physical models;					
.9 prepare and deliver digital models;					
.10 provide technical representation at meetings;					
.11 prepare specified alternative designs;					
.12 calculate quantities of <i>Work</i> to be performed;					
.13 prepare <i>Project</i> commissioning and start-up procedures;					
.14 prepare applications and supporting documents for governmental grants, loans and subsidies;					
.15 prepare applications and supporting documents for payments in connection with the <i>Project</i> ;					
.16 assist in obtaining required approvals, licenses, and permits from governmental authorities having jurisdiction over the <i>Project</i> ;					
.17 arrange for the translation of documents into a language other than the language of the Contract;					

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Indicate with a $$ in the appropriate column for each task listed below, including tasks not in the Contract a method of remuneration for tasks in the Contract.	pu Services not in the Contract	Included in fixed fee (paragraph 4.2.1 of Article A-4)	Included in percentage fee (paragraph 4.2.2 of Article A-4)	Fee on time-based rates (paragraph 4.2.3 of Article A-4)	Other (paragraph 4.2.4 of Article A-4)
.18 arrange for special testing of the <i>Work</i> ;					
.19 investigate specified conditions (such as failures, accidents, groundwater and drainage issues, stability, etc.);					
.20 assist in litigation, arbitration, negotiation, adjudication, or other legal or administrative proceedings or behalf of the <i>Owner</i> , and all necessary preparation in respect thereof;					
.21 prepare and deliver of peer review of documents provided by <i>Other Consultants</i> ;					
.22 be, in the first instance, the interpreter of the requirements of the <i>Construction Documents</i> , and shall make written interpretations and findings that are impartial and consistent with the intent of the <i>Construction Documents</i> ;					
.23 other:					
2. PROJECT INITIATION SERVICES The <i>Consultant</i> shall:					
.1 prepare a <i>Project</i> implementation program based upon the <i>Owner</i> 's written instructions regarding the <i>Project</i> requirements, the <i>Budget of the Work</i> , and the <i>Owner</i> 's time constraints;					
.2 prepare a statement of requirements and <i>Project</i> design criteria to be used in the design process;					
.3 coordinate the work of <i>Other Consultants</i> (where the <i>Consultant</i> is the lead professional);					
.4 prepare specified <i>Project</i> feasibility studies;					
.5 arrange for expert and specialist studies for use in conceptual, preliminary, and detailed design and review services phases;					
.6 prepare environmental assessments and impact studies;					
.7 review studies and reports prepared by others;					
.8 review environmental assessments and impact studies prepared by others;					
.9 review geotechnical reports prepared by others;					

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Indicate with a $$ in the appropriate column for each task listed below method of remuneration for tasks in the Contract.	ow, including tasks not in the Contract and	Services not in the Contract	Included in fixed fee (paragraph 4.2.1 of Article A-4)	Included in percentage fee (paragraph 4.2.2 of Article A-4)	Fee on time-based rates (paragraph 4.2.3 of Article A-4)	Other (paragraph 4.2.4 of Article A-4)
.10 assist in obtaining approvals from authorities having jurisdictio	n over the <i>Project</i> ;					
.11 other:						
3. CONCEPTUAL DESIGN AND REVIEW SERVICES The Consultant shall:						
.1 review the statement of requirements provided by the <i>Owner</i> ;						
.2 analyze information provided by the <i>Owner</i> , including condition economic feasibility, location of the Project, and similar matter						
.3 establish the size, capacity, location, method of operation, and basis for the design of a proposed <i>Project</i> ;	other principal features which form the					
.4 analyze expert and specialist studies prepared in support of the	conceptual design;					
.5 evaluate alternatives;						
.6 prepare concept sketches and develop specification notes;						
.7 prepare <i>Project</i> brief outlining the relevant criteria to be follow <i>Professional Services;</i>	ed in preliminary and detailed					
.8 submit conceptual design and <i>Project</i> brief for review and appr	roval by <i>Owner</i> ;					
.9 confirm Budget of the Work;						

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Indicate with a $$ in the appropriate column for each task listed below, including tasks not in the Contract and method of remuneration for tasks in the Contract.	Services not in the Contract	Included in fixed fee (paragraph 4.2.1 of Article A-4)	Included in percentage fee (paragraph 4.2.2 of Article A-4)	Fee on time-based rates (paragraph 4.2.3 of Article A-4)	Other (paragraph 4.2.4 of Article A-4)
.10 other:					
4. PRELIMINARY DESIGN AND REVIEW SERVICES The Consultant shall:					
.1 review information from any <i>Other Consultants</i> to carry out duties and responsibilities;					
.2 prepare preliminary design, including drawings, digital models or sketches illustrating and defining the design concept;					
.3 prepare specification outlines;					
.4 prepare preliminary design report covering alternatives, preliminary sketches and outline specifications;					
.5 prepare documents in support of applications for approval from authorities having jurisdiction over the <i>Project</i> or designated specific aspects of the <i>Project</i> ;					
.6 submit preliminary design report for review and approval by the <i>Owner</i> ;					
.7 confirm Budget of the Work;					
.8 other:					
5. DETAILED DESIGN AND REVIEW SERVICES The <i>Consultant</i> shall:					
.1 prepare Instruments of Service;					

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Indicate with a $$ in the appropriate column for each task listed below, including tasks not in the Contract as method of remuneration for tasks in the Contract.	<i>p</i> Services not in the <i>Contract</i>	Included in fixed fee (paragraph 4.2.1 of Article A-4)	Included in percentage fee (paragraph 4.2.2 of Article A-4)	Fee on time-based rates (paragraph 4.2.3 of Article A-4)	Other (paragraph 4.2.4 of Article A-4)
.2 prepare bill of quantities;					
.3 prepare documents in support of applications for approval from authorities having jurisdiction for the <i>Project</i> or designated specific aspects of the <i>Project</i> ;					
.4 submit <i>Instruments of Service</i> for review and approval by <i>Owner</i> ;					
.5 prepare and submit <i>Construction Documents</i> for review and approval by the <i>Owner</i> (where the <i>Consultant</i> is the lead professional);					
.6 review Construction Documents prepared by others;					
.7 confirm Budget of the Work;					
.8 other:					
6. CONSTRUCTION ADMINISTRATION PROFESSIONAL SERVICES The Consultant shall:					
.1 conduct General Review;					
.2 manage or be included in all communications between the <i>Owner</i> and the <i>Contractor</i> ;					
.3 attend meetings necessary to the coordination of design, construction administration <i>Professional Services</i> , and performance of the <i>Work</i> ;					
.4 prepare and distribute notices of change, change orders, and other necessary <i>Project</i> documentation during the performance of the <i>Work</i> (where the <i>Consultant</i> is the lead professional);					
.5 obtain advice, data and information from <i>Other Consultants</i> when required;					
.6 review <i>Shop Drawings</i> in accordance with paragraph 3.3.10 of GC 3.3 – CONSTRUCTION ADMINSTRATION;					
.7 monitor compliance with the program of construction reviews and testing which may be required by the <i>Consultant</i> or imposed by law in connection with the performance of the <i>Work</i> ;					
.8 interpret <i>Construction Documents</i> (where the <i>Consultant</i> is the lead professional and if so provided in the <i>Construction Contract</i>);	e 🗆				

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Indicate with a $$ in the appropriate column for each task listed below, including tasks not in the Contract and method of remuneration for tasks in the Contract.	Services not in the Contract	Included in fixed fee (paragraph 4.2.1 of Article A-4)	Included in percentage fee (paragraph 4.2.2 of Article A-4)	Fee on time-based rates (paragraph 4.2.3 of Article A-4)	Other (paragraph 4.2.4 of Article A-4)
.9 evaluate <i>Contractor</i> 's applications for payment;					
.10 certify <i>Contractor</i> 's applications for payment, subject to GC 3.4 – PAYMENT CERTIFICATION BY THE CONSULTANT (where the <i>Consultant</i> is the lead professional);					
.11 review of an application for <i>Ready-for-Takeover</i> , noting defects and deficiencies observed in the <i>Work</i> ;					
.12 verify the validity of the <i>Contractor</i> 's application for <i>Ready-for-Takeover</i> (where the <i>Consultant</i> is the lead professional);					
.13 review correction of defects and deficiencies observed in the <i>Work</i> when completed;					
.14 at the end of the <i>Project</i> , compile and deliver to the <i>Owner</i> a reproducible set of updated record documents including data provided by the <i>Contractor</i> , <i>Other Consultants</i> or other parties;					
.15 notify the <i>Contractor</i> in writing of those items requiring attention by the <i>Contractor</i> to complete the construction in accordance with the <i>Construction Documents</i> ;					
.16 do a final <i>General Review</i> and report upon notification by the <i>Contractor</i> that the defects and deficiencies referred to in paragraph 6.14 have been corrected and the <i>Work</i> is completed;					
.17 prepare record drawings;					
.18 other:					
7. ON-SITE PROFESSIONAL SERVICES The Consultant shall:					
.1 arrange for reference surveys for use in the <i>Contractor</i> 's layout of the <i>Work</i> (not including surveys of legal property boundaries);					
.2 review <i>Contractor</i> 's surveys and layout;					
.3 conduct regular site reviews of the <i>Work</i> to ascertain if the reviewed <i>Work</i> is in general conformance with the <i>Construction Documents</i> ;					
.4 arrange for field-testing and inspection of materials and equipment for <i>Owner</i> 's quality assurance program;					
.5 investigate, report, and provide recommendations on unusual circumstances that arise during the <i>Project</i> implementation;					

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Indicate with a $$ in the appropriate column for each task listed below, including tasks not in the Contract an method of remuneration for tasks in the Contract.	Services not in the <i>Contract</i>	Included in fixed fee (paragraph 4.2.1 of Article A-4)	Included in percentage fee (paragraph 4.2.2 of Article A-4)	Fee on time-based rates (paragraph 4.2.3 of Article A-4)	Other (paragraph 4.2.4 of Article A-4)
.6 maintain sufficient data to outline current progress of the <i>Work</i> ;					
.7 conduct final inspection at the conclusion of the <i>Project</i> , including any elements of commissioning agreed to as part of the <i>Owner</i> 's acceptance program;					
.8 other:					
8. POST CONSTRUCTION PROFESSIONAL SERVICES The Consultant shall:					
.1 provide commissioning and start-up assistance;					
.2 collect and organize operating and maintenance manuals;					
.3 identify deficiencies during the warranty period at the <i>Owner</i> 's request;					
.4 assist in facility management or operations after commissioning and start-up;					
.5 prepare operating or maintenance manuals, operating drawings, or charts;					
.6 other:					

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SCHEDULE B REIMBURSABLE EXPENSES

	licate with a $$ in the appropriate column whether each expense item is included in the fee or is separately mbursable.	Included in Fee (paragraphs 4.2.1, 4.2.2 or 4.2.3 of Article A-4)	Reimbursable (paragraph 4.7 of Article A-4)
1.	Transport, subsistence, and lodging in connection with the <i>Project</i> beyond kilometres of the <i>Consultant</i> 's office. Use of vehicles shall be charged at \$ per kilometre.		
2.	Long distance telephone and facsimile communications.		
3.	Reproduction of information, drawings, specifications, and other documents necessary to the Project.		
4.	Testing Professional Services.		
5.	Courier and messenger Professional Services.		
6.	Fees paid for securing approvals, permits, or licences from regulatory agencies having jurisdiction over the <i>Project</i> .		
7.	Advertising incidental to the Project.		
8.	Obtaining necessary legal, accounting, insurance, bonding, and other counselling <i>Professional Services</i> pertaining to the <i>Project</i> .		
9.	Specialized <i>Project</i> specific computer hardware and software charges and related expenses as agreed to between the <i>Owner</i> and the <i>Consultant</i> .		
10.	Customs, excise, or any other taxes incurred by the <i>Consultant</i> with respect to the <i>Professional Services</i> , but excluding <i>Value Added Taxes</i> .		
11.	Special or increased insurance coverage required by the Owner.		
12.	Fees and disbursements of <i>Subconsultants</i> required to provide the <i>Professional Services</i> where not included in the fees in connection with the <i>Project</i> .		
13.	Costs incurred by the <i>Consultant</i> to provide <i>Professional Services</i> in connection with the <i>Project</i> where the <i>Consultant</i> has obtained the prior written approval of the <i>Owner</i> .		
14.	Other:		

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SCHEDULE C TIME-BASED RATES FOR PERSONNEL EMPLOYED BY THE CONSULTANT

Personnel employed by the Consultant, (e.g. senior designer, intermediate designer, junior designer, estimator, supervisor)	Unit	Rate

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These Supplementary Conditions modify, delete and/or add to the Agreement, the Definitions, the General Conditions, and the Schedules of the CCDC 31 - 2020 Service Contract Between Owner and Consultant.

SC 1. AGREEMENT BETWEEN OWNER AND CONSULTANT

1.1 ARTICLE A-4 REMUNERATION FOR THE PROFESSIONAL SERVICES

- 1.1.1 Amend paragraph 4.3 by deleting the words "twelve months from the effective date of this Agreement at which time the rate shall increase by __% unless otherwise specified in writing by the parties."
- 1.1.2 Amend paragraph 4.5 by inserting the following words to the beginning: "Subject to GC 8.4 FORCE MAJEURE EVENTS,".
- 1.1.3 Delete paragraphs 4.6 and 4.7 and replace them with the following:
 - "4.6 The fees for time-based rates set out in paragraph 4.3.2 and in SCHEDULE C TIME BASED RATES FOR PERSONNEL EMPLOYED BY THE CONSULTANT shall not be changed for the duration of the *Contract*.
 - 4.7 Subject to paragraph 4.8, *Reimbursable Expenses* shall be the actual expenditures, supported by receipts or invoices, incurred by the *Consultant* and the *Subconsultants* in the interest of the *Project*. The *Consultant* shall not be entitled to any mark up or administrative charge on any *Reimbursable Expenses*.
 - 4.8 The following expenses shall not be *Reimbursable Expenses*:
 - .1 overhead, rent and general expenses of the *Consultant's* or any *Subconsultant's* head office, including the costs for any reproduction of information, printing, long distance telephone, and facsimile communications;
 - .2 transport, subsistence and lodging in connection with the *Project*, unless pre-approved by the *Owner* in writing;
 - .3 costs to the extent that such costs are due to the fault or negligence of the *Consultant* or any *Subconsultants*;
 - .4 fines, penalties, sanctions or impositions assessed or imposed by any governmental body, instrumentality or tribunal unless such fines, penalties, sanctions or impositions are assessed or imposed directly due to the action or omission of the *Owner*,
 - .5 costs of accelerating the *Professional Services* or *Work*, to the extent any delay or schedule slippage was caused or contributed to by the *Consultant* or any *Subconsultants;*
 - .6 overtime costs incurred as a result of any negligence or fault of the *Consultant* or any *Subconsultants;*
 - .7 all costs, fees and expenses incurred in connection with the preparation, negotiation and interpretation of this *Contract;*
 - .8 hospitality, incidental or food expenses, including meals and alcohol, sundries and personal items; and
 - .9 any other expense that has not been pre-approved by the Owner."

1.2 ARTICLE A-5 PAYMENT

- 1.2.1 Delete paragraphs 5.1 through 5.3 and replace them with the following:
 - "5.1 The Consultant will submit a Proper Invoice for Fees and Reimbursable Expenses, together with applicable Value Added Taxes, on a monthly basis, unless otherwise agreed, provided that no Proper Invoice shall be submitted to the Owner between December 15th to January 7th, inclusive, for each calendar year ("Holiday Period"). In the event that an application for payment contain a Proper Invoice is delivered to the Owner during the Holiday Period, the parties agree that such application for payment and Proper Invoice shall be deemed to have been delivered to the Owner on January 8th.
 - 5.2 Subject to the holdback provisions of the *Act* and the *Owner*'s right of setoff under the *Contract*, the *Owner* will pay the amount payable under a *Proper Invoice* no later than thirty(30) calendar days after the date the *Owner* receives the *Proper Invoice*. Provided that the *Owner*'s obligation

to make payment shall not arise unless and until the *Consultant's* invoice constitutes a complete *Proper Invoice* as provided in GC 4.0 – PROPER INVOICE. Payment by the *Owner* shall not preclude the *Owner* from thereafter disputing any of the items for which payment was made and shall not be construed as acceptance of any part of the *Consultant's Services* which are not in accordance with the requirements of the *Contract Documents*.

5.3 Should either party fail to make payments as they become due under the terms of this *Contract* or in an award by arbitration or a court, interest shall begin to accrue on an amount that is not paid when it is due to be paid paid at two percent (2%) per month."

1.3 ARTICLE A-9 TIME IS OF THE ESSENCE

1.3.1 Add a new Article A-9 as follows:

"ARTICLE A-9 TIME IS OF THE ESSENCE

9.1 The *Consultant* acknowledges and agrees that time shall be of the essence in the performance of the *Consultant's* obligations under this *Contract.*"

SC 2. DEFINITIONS

- 2.1.1 Amend the following Definitions:
 - (a) Amend the definition of "Construction Cost" by adding the following the end:

", and excluding the fees and *Reimbursable Expenses* payable under this *Contract*. The *Construction Cost* shall also not include any changes in the *Work* that are required as a result of an avoidable error or omission by the *Consultant* or any *Subconsultant*."

(b) Delete the definition of "General Review" and replace it with the following:

"General Review" is synonymous with field review, and means the review by the *Consultant* during visits to the *Place of the Work* and, where applicable, at locations where building components are fabricated for use at the *Project*, at intervals appropriate to the stage of the construction that the *Consultant*, in its professional discretion, considers necessary to become familiar with the progress and quality of the *Work* and to determine that the *Work* is in general conformity with the *Construction Documents* and applicable statutes, regulations, codes, and bylaws of all authorities having jurisdiction. For clarity, *General Review* does not require the *Consultant* to make exhaustive or continue site reviews."

(c) Amend "Instruments of Service" by adding the following to the end of the paragraph:

"Where the *Instruments of Service* are created in or converted into an electronic format, the *Instruments of Service* shall be in a form of editable electronic document files and computer aided design documents (e.g. CAD or BIM-editable files) in a format acceptable to the *Owner.*"

(d) Amend the definition of "Professional Services" by adding the following to the end:

", as well as all other services and obligations described and identified in this *Contract,* wherever described and located."

(e) Amend the definition of "Reimbursable Expenses" by adding the following to the end:

", subject to paragraphs 4.7 and 4.8 of Article A-4 – REMUNERATION FOR THE PROFESSIONAL SERVICES."

- 2.1.2 Add the following new definitions:
 - (a) Act

"Act means the Mechanics' Lien Act, RSNWT, 1988 as duplicated for Nunavut by the Nunavut Act, SC 1993,c.28, and all amendments thereto."

(b) **Dispute Resolution Assistance**

"Dispute Resolution Assistance may include, but is not limited to: preparing and/or assisting with the preparation of, or review of, any notices relating to dispute resolution proceedings in relation to the

Construction Contract, and providing advice in relation thereto; preparing and/or assisting with the preparation of responses or submissions to for any dispute resolution proceeding; attending any dispute resolution proceedings as a representative of or as a resource to the *Owner*; providing evidence at and/or reports to be used in any dispute resolution proceedings."

(c) Coordinate or Coordination

"Coordinate or Coordination, when referring to the Professional Services, includes:

- management and supervision of communications between the Consultant and Subconsultants and between Subconsultants;
- providing direction as necessary to give effect to any design decisions taken;
- reviewing the product of the Work to assist in identifying conflicts and to monitor compliance with directions;
- reviewing the Construction Documents to identify and address conflicts;
- managing review and return of all Shop Drawings and submittals, as applicable, within ten (10) Working Days of receipt;
- managing review and response to any *Contractor* requests for information within ten (10) Working Days of receipt; and
- coordinating and ensuring Subconsultant and Consultant attendance at site meetings and to perform Construction Administration Services consistent with the requirements of this Contract."

(d) "Proper Invoice"

"Proper Invoice is an application for payment that complies with all of the requirements set out in GC 4.0 – PROPER INVOICE."

(e) "Services"

"Services shall have the same meaning as Professional Services"

SC 3. GENERAL CONDITIONS

3.1 GC 1.1 CONTRACT DOCUMENTS

- 3.1.1 Add a new paragraph 1.1.5 as follows:
 - "1.1.5 If there is a conflict within the *Contract Documents*, the order of priority from highest to lowest shall be:
 - Supplementary Conditions;
 - the Agreement Between Owner and Consultant;
 - the Definitions;
 - the General Conditions;
 - the Schedules;"

3.2 GC 1.3 RIGHTS AND REMEDIES

- 3.2.1 Delete paragraph 1.3.2 and replace it with the following:
 - "1.3.2 No waiver by or on behalf of a party of any breach of a provision of this *Contract* shall be binding upon the party unless it is expressed in writing and duly executed by the party or signed by its fully authorized representative(s), and such a waiver shall not operate as a waiver of any future breach, whether of a like or different character. No waiver shall be inferred from or implied by the conduct of either party."

3.3 GC 1.4 ASSIGNMENT

- 3.3.1 Delete paragraph 1.4 and replace it with the following:
 - "1.4 The *Consultant* acknowledges that neither the whole nor any part of this *Contract* may be assigned without the prior written consent of the *Owner*."

3.4 GC 2.1 CONSULTANT'S RESPONSIBILITIES

3.4.1 Amend paragraph 2.1.2 by adding ", the *Project*, and the *Owner*" to the end of the sentence.

- 3.4.2 Delete paragraph 2.1.3 and it them with the following:
 - "2.1.3 In performing this *Contract*, the *Consultant* shall exercise a standard of care, skill, judgment, and diligence that would normally be exercised by an experienced, skilled and prudent consultant supplying similar services for a similar project. The *Consultant* shall exercise the same standard of care, skill, judgment and diligence in its employment of any *Subconsultants* and in respect of any designs, products, materials, suppliers, services, personnel, contractors, tradespeople, or procedures which it may recommend to the *Owner* or which it may engage on the *Project.*"
- 3.4.3 Delete paragraph 2.1.4 and replace it with the following:
 - "2.1.4 The Consultant shall perform the Professional Services as expeditiously as is consistent with the Consultant's standard of care and the orderly progress of the Project. Upon the Owner's request the Consultant shall submit, for the Owner's approval, a schedule for the performance of the Professional Services which may be adjusted with the Owner's approval as the Project progresses, and shall include allowances for periods of time required for the Owner's review and for approval of submissions by authorities having jurisdiction."
- 3.4.4 Delete paragraph 2.1.6 and replace it with the following:
 - "2.1.6 The Consultant may not subcontract any part of this Contract without first obtaining the express written consent of the Owner. Where the Consultant has obtained the Owner's prior written consent, the Consultant shall engage such approved Subconsultants to perform part of the Professional Services required by this Contract. The Consultant shall not change or replace a Subconsultant without the prior written approval of the Owner, acting reasonably. Provided that:
 - (a) the Owner, acting reasonably, may order the Consultant to remove from the Project, without cost to the Owner, any representative or employee of the Consultant or a Subconsultant whose conduct, in the opinion of the Owner, jeopardize the safety or security of the Project, any person(s), or the Owner's operations, or is a detriment to the Project, or which may be considered as harassment in the workplace. Immediately upon receipt of such order the Consultant shall make arrangements for the appointment of a replacement representative or employee acceptable to the Owner.
 - (b) Where a *Subconsultant* or a senior person involved in the *Project*, whether employed by the *Consultant* or a *Subconsultant*, is withdrawn from the *Project* for any reason, the replacement of that *Subconsultant* or person is subject to the approval of the *Owner*, acting reasonably.
- 3.4.5 Amend paragraph 2.1.7 by replacing "under contracts" with "under written contracts".
- 3.4.6 Delete paragraph 2.1.8 and replace it with the following:
 - "2.1.8 The *Consultant* shall be responsible to *Coordinate* the work and services of all *Subconsultants* to ensure that the work of each is consistent and complementary to the *Project*, and shall be as fully responsible to the *Owner* for the acts and omissions of the *Subconsultants* and of persons directly or indirectly employed by them as for the acts and omissions of persons directly employed by the *Consultant*."
- 3.4.7 Amend paragraph 2.1.13 by inserting the words "Subject to any disclaimers or limitations contained in such records, information, data and specifications, and" to the beginning of the paragraph.
- 3.4.8 Amend paragraph 2.1.15.3 by adding the following to the end of the paragraph:

"provided that the *Consultant*, or those for whom is responsible, has not directed or instructed the *Contractor* to undertake any actions or activities with respect to such toxic or hazardous substances or materials which do not comply not comply with legal and regulatory requirements, or which threatens human health and safety or the environment, or material damage to the property of the *Owner* or others."

- 3.4.9 Add new paragraphs 2.1.16 and 2.1.17 as follows
 - "2.1.16 The Consultant shall:
 - (a) assist the *Owner* in obtain the permits which the *Owner* may be required for the *Project*, and which have not been specifically identified as the responsibility of the *Owner* or the *Contractor*,

- (b) assign the project personnel identified in the Consultant's Proposal ("Key Personnel") to the Project and not withdraw, remove, reassign, or replace such Key Personnel without the prior written approval of the Owner. The replacement of any Key Personnel is subject to the approval of the Owner, acting reasonably, and shall not result in any additional costs to the Owner;
- (c) immediately notify the *Owner* in writing if the *Consultant* observes or otherwise becomes aware of any defects, errors, omissions or inconsistencies in the information provided by the *Owner* under this *Contract*;
- (d) promptly advise the *Owner* in writing should the *Consultant* form the view that the *Construction Cost* budget and/or the *Construction Cost* Estimate and/or the *Project* schedule are not reasonable or achievable;
- (e) immediately notify the *Owner* in writing if the *Consultant* observes or otherwise becomes aware of any fault or defect in the Work or any non-conformity with the requirements of the *Construction Documents* or the *Instruments of Service*;
- (f) participate in value engineering throughout the design process and incorporate into the *Construction Documents* those value engineering outcomes which, in its professional judgment, are appropriate;
- (g) comply with all of the Owner's policies and guidelines for the Project;
- (h) periodically review the *Project* with the *Owner* and promptly incorporate comments from the *Owner* into the *Instruments of Service*, as directed;
- (i) attend regular *Project* meetings bringing the appropriate *Subconsultants* to such meetings;
- (j) co-operate with, and ensure cooperation between, Subconsultants;
- (k) co-operate with, and co-ordinate with, the Contractor and any Other Consultants; and
- (I) notwithstanding any other contractual right the *Consultant* may have to suspend this *Contract*, continue performing the *Professional Services* despite any disputes that may arise under the *Contract* in order to limit, to the greatest extent possible, any disruption to the timely completion of the *Project*.
- 2.1.17 Should the Consultant become aware of the existence of any *Hazardous Substances* at the *Place of the Work*, it shall report that discovery to the *Owner* as soon as reasonably possible, including such detail on the discovery as is then known. Where such discovery presents the likelihood of injury to persons, and subject to the Consultant's professional duties, the *Consultant* shall be at liberty, but not be obliged, to give such directions as it deems prudent in the interests of safety. Where the Owner provides instructions to the *Consultant* with respect to addressing any *Hazardous Substances* at the *Place of the Work, the Consultant* will comply the same."

3.5 GC 2.2 OWNER'S RESPONSIBILITIES

- 3.5.1 Delete paragraphs 2.2.5, 2.2.7, and 2.2.8 in their entirety.
- 3.5.2 Amend paragraph 2.2.12 by inserting the words ", to the extent available," at the end of the first line.
- 3.5.3 Amend paragraph 2.2.13.1 by adding the following to the end of the paragraph:

"Save and except in the case of an emergency, the Consultant shall provide the *Owner* with no less than ten (10) Working Days in which to provide information or documentation, make a decision, or deliver a response to any questions."

3.6 GC 3.1 BUDGET OF THE WORK, CONSTRUCTION COST ESTIMATE, AND BIDS

- 3.6.1 Delete paragraphs 3.1.1 through 3.1.3 and replace them with the following:
 - "3.1.1 If at any time the *Consultant's* estimate of the probable *Construction Cost* exceeds the *Owner's* budget for the *Construction Cost*, the *Consultant* shall make appropriate recommendations to the *Owner* to adjust the *Project's* size, quality or budget for the *Construction Cost*, and the *Owner* shall determine, in its sole discretion, whether any of the *Consultant's* recommendations will be accepted or not.

- 3.1.2 At all times:
 - (a) Whether or not the Consultant has been engaged to provide an estimate of the probable Construction Cost, the Consultant shall co-operate with the Owner and the Owner's cost consultant, if any, in the periodic review of the estimate of the Construction Cost. Without in any way limiting the Consultant's obligations under this Contract, the parties agree that the Consultant, in collaboration with the Owner and any cost consultant engaged by the Owner, will review the Construction Cost budget and the estimate of the probable Construction Cost as and when the Owner may request. Upon completion of each review the Consultant shall, for elements of design within the control of the Consultant, make reasonable commercial efforts to accomplish completion of the Project within the Construction Cost budget or the latest approved estimate of Construction Cost.
 - (b) The Construction Cost budget shall not be changed without the prior written consent of the Owner. If the Consultant seeks a change to the Construction Cost budget, the Consultant shall provide the Owner with a written explanation. Such explanation is to include the reasons for the change with sufficient detail to permit the Owner to understand why the change is being requested. The Consultant shall obtain written authorization from the Owner for a change to the existing Construction Cost budget prior to the issuance of any Change Order which would revise the price of the Construction Contract.
- 3.1.3 If the lowest compliant bid(s) or lowest negotiated proposal(s) for the *Work* exceed(s) the latest agreed estimate of the probable *Construction Cost* by more than ten percent (10%), the *Owner* shall:
 - (a) provide written approval of an increase in the budget for the *Construction Cost*; or
 - (b) authorize the re-bidding or re-negotiating of the proposal(s); or
 - (c) co-operate with the *Consultant* and *Other Consultants* in revising the *Project* size or quality as necessary to reduce the *Construction Cost*, or
 - (d) terminate this *Contract* if the *Project* is abandoned.
- 3.1.4 If the *Owner* proceeds under paragraph 3.1.3(c), and to the extent that the lowest compliant bid(s) or the lowest negotiated proposal(s) exceed(s) the latest agreed estimate of the *Construction Cost* by more than ten percent (10%), and is not due to extraordinary market conditions, the *Owner* may require the *Consultant* to modify the *Instruments of Service* and *Construction Documents* or provide other services necessary to reduce the *Construction Cost* to within ten percent (10%) of the latest agreed estimate of *Construction Cost* for no additional *Fees.* Such modification of the *Instruments of Service* and/or *Construction Documents* shall be the limit of the *Consultant*'s responsibility under GC 3.1.3(c), and having made such modifications, the *Consultant* shall be entitled to compensation in accordance with this *Contract* for all other *Services* performed."

3.7 GC 3.2 ADDITIONAL SERVICES

3.7.1 Amend paragraph 3.2.2 by adding the following to the end:

"The Consultant shall not perform any Additional Services without the prior and express written authorization of the Owner. No invoice or claim for payment or reimbursement based on verbal instructions to proceed with Additional Services will be considered or accepted."

- 3.7.2 Delete paragraph 3.2.3.
- 3.7.3 Add new paragraphs 3.2.8 and 3.2.9 as follows:
 - "3.2.8 The *Consultant* and *Owner* agree that under no circumstances shall the following activities be considered *Additional Services* by the *Consultant*:
 - Any revisions, changes, modifications, or amendments that are required to be made to the Instruments of Service or Construction Documents as a result of any error or omission by the Consultant or any Subconsultant;

- (b) Any revisions, changes, modifications, or amendments to the *Instruments of Service* or *Construction Documents* which are required as a result of the same not being fully and/or properly coordinated by the *Consultant*;
- (c) Any revisions, changes, modifications or amendments to Construction Documents which are required to be made to the Construction Documents align to the Construction Cost estimate and/or Budget of the Work;
- (d) The response to Requests for Information or the issuance of Site Instructions providing the *Contractor* with any missing information and/or clarifying any inconsistent information relating to *Construction Documents*;
- (e) The response to Requests for Information delivered due to the improper or incomplete coordination of the *Construction Documents*;
- (f) The enactment of new statutes, regulations, codes or by-laws which were reasonably foreseeable or within the contemplation of the parties at the time the *Contract* was entered into;
- (g) The Owner's acceptance of Contractor proposed substitutions that require revisions to the Construction Documents, where the proposed substitution was necessitated due to an error or omission by the Consultant.
- 3.2.9 The *Consultant* shall be responsible for maintaining proper records with respect to all *Additional Services* performed, including but not limited to the dates the services were performed, the identity of the person(s) involved, the hours spent, the rates charged, a description of the *Additional Services* performed, and confirmation of approval to proceed by the *Owner*."

3.8 GC 3.3 CONSTRUCTION ADMINISTRATION

- 3.8.1 Add new paragraphs 3.3.6.4 through 3.3.6.7 as follows:
 - "3.3.6.4 shall review and provide comments on the Contractor's construction schedules for the Owner;
 - 3.3.6.5 shall, upon receipt of *Shop Drawings* and other submittals from the *Contractor*, review the same for conformance with the *Construction Documents* and take other appropriate actions with reasonable promptness. *Shop Drawings* and submittals shall be reviewed and returned to the *Contractor* within ten (10) *Working Days* of receipt. Should a *Shop Drawing* or other submittal require a review period greater than ten (10) *Working Days*, the *Consultant* shall notify in writing the *Owner* and *Contractor* with a specific date for the return of the *Shop Drawings* or other submittals, which date must be approved in writing by the *Owner*;
 - 3.3.6.6 shall visit the *Place of the Work* at such intervals as the *Consultant*, in its professional judgment and having regard to the standard of care, considers appropriate in order to assess whether the *Contractor* is performing the *Work* in general conformity with the *Construction Documents*. The *Consultant* shall attend at the *Place of the Work* for the purposes of conducting a *General Review* in accordance with the schedule agreed to with the *Owner*.
 - 3.3.6.7 shall provide such Dispute Resolution Assistance as the Owner may require in connection with notices of Dispute Resolution issued or received by the Owner under the Construction Contract. All Dispute Resolution Assistance services will be charged on the basis of the hourly rates set out in SCHEDULE C TIME-BASED RATES FOR PERSONNEL EMPLOYED BY THE CONSULTANT and shall be authorized by the Owner."
- 3.8.2 Delete paragraph 3.3.8 and replace it with the following:
 - "3.3.8 The *Consultant* shall work collaboratively and in conjunction with the *Other Consultants,* including without limitation, by providing access to such information as the *Other Consultants* may require."
- 3.8.3 Add new paragraph 3.3.11 as follows
 - "3.3.11 The *Consultant*, without in any way limiting its responsibilities under this *Contract*, shall perform the *Professional Services* in such a manner so as to avoid disturbing the occupants of the Place

of the Work or the public in general, and shall respect and comply with local regulations and all *Owner's* requirements regarding permitted work hours, noise levels and work conditions, and shall take all reasonable steps to avoid interference with fire access routes, fire exits, building access and egress. Without *Owner's* prior approval, the *Consultant* shall not permit any employee or *Subconsultant* to use any existing facilities including, without limitation, elevators, lavatories, toilets, entrances, and parking areas other than those explicitly designated by the *Owner.*"

3.9 GC 3.4 PAYMENT CERTIFICATION BY THE CONSULTANT

- 3.9.1 Delete paragraph 3.4.1 and replace it with the following:
 - "3.4.1 Where the *Consultant* is required to issue payment certificates as part of the Professional Services, the Consultant shall complete all of the following within seven (7) calendar days of the date the *Consultant* receives the *Contractor's* application for payment:
 - (a) review the *Contractor's* applications for payment to determine whether it meets the requirements of a "Proper Invoice", as defined in the *Construction Contract*, and
 - (b) if the *Consultant* determines that the *Contractor's* application for payment does not meet the requirements of a "Proper Invoice", as defined in the *Construction Contract*, the *Consultant* shall:
 - (i) immediately notify the *Owner* and shall identify the omissions in the *Contractor's* application for payment, and
 - (ii) if so instructed by the *Owner*, the *Consultant* shall notify the *Contractor* of such omissions, and
 - (c) issue the certificate for payment and, if the amount certified for payment by the *Consultant* is less than the amount applied for by the *Contractor*, the *Consultant* shall deliver to the *Owner*, along with the certificate for payment:
 - (i) a written report that identifies the amount(s) that is/are not being certified for payment and the *Consultant's* reasons for not certifying the full amount applied for by the *Contractor*, and
 - (ii) provide a copy of the of the written report and certificate of payment to the Owner, and assist the Owner, as needed, with drafting any required notices regarding the non-payment or partial payment of the application for payment; and
 - (d) subject to paragraphs (a) and (b) above, prepare and issue certificates of payment for release of holdback on an annual basis, phased basis or upon completion of a subcontract, as may be provided in the *Construction Contract*."

3.10 GC 4.0 PROPER INVOICE

3.10.1 Add new GC 4.0 as follows:

"GC 4.0 PROPER INVOICE

- "4.0.1 In this *Contract* a *Proper Invoice* shall mean an invoice submitted by the *Consultant* that:
 - (a) is given to the *Owner* by e-mail to ______ and concurrently to ______; and
 - (b) includes all of the following:
 - i. the Consultant's name and address and value added tax registration number;
 - ii. the date of the invoice and the period during which the *Professional Services* or *Additional Services* were supplied;
 - iii. information identifying the authority, whether in the *Contract* or otherwise, under which the *Professional Services* or *Additional Services* were supplied;
 - iv. a description, including quantities where appropriate, of the *Professional Services* or *Additional Services* that were supplied;

- v. the amount payable for the *Professional Services* or *Additional Services* that were supplied and the payment terms;
- vi. the name, title, telephone number and mailing address of the person to whom payment is to be sent;
- vii. information relating to the phase of the *Professional Services* performed, the applicable fee, the percentage completion, the total fee invoiced to date, the fee previously invoiced, and the current billing, in the following format:

Phase	Fee	% Completed	Total Fee to Date	Previously Invoiced	Current Billing
1. (name the phase)					
2. (name the phase)					
Total					

- viii. where the invoice amount includes amounts charged on the basis of hourly rates, documentation in support of the amount claimed, including dates that the *Professional Services* or *Additional Services* were performed, identity of the person(s) involved, the hours spent, a description of the *Professional Services* or *Additional Services* performed, and a copy of the approval to proceed on an hourly basis from the *Owner*;
- ix. the *Reimbursable Expenses* incurred and for which payment is requested, including all backup or supporting documentation;
- x. a list and description of *Additional Services* and/or change orders for which payment is being claimed and backup or supporting documentation;
- xi. a worker's compensation clearance certificate; and
- xii. such further and other documents as the *Owner* may reasonably request.

3.11 GC 4.1 PAYMENT

3.11.1 Amend paragraph 4.1.1 by adding the following to the end of the paragraph:

"No payment by *the Owner* shall constitute an acceptance of any *Services* provided by the *Consultant* or any *Subconsultants* which are not in accordance with the requirements of this *Contract* and shall not preclude the *Owner* from thereafter disputing any of such items for which payment was made."

- 3.11.2 Delete paragraph 4.1.3 and replace it with the following:
 - "4.1.3 The *Consultant* recognizes and agrees that its performance of the *Professional Services* normally entails reasonable changes in the *Construction Documents* commensurate with the size and complexity of the *Project*, and that such reasonable changes to the *Construction Documents* are likely to occur during the course of the *Project*. The *Consultant* therefore represents, confirms and agrees that its fee includes such reasonable changes or additions to the *Construction Documents* during the course of both design and the *Work*, and that such changes or additions shall not entitle the *Consultant* to any additional compensation.
 - (a) If the Consultant forms the opinion that any service requested by the Owner or required by the Project is an Additional Service or is a change to the Services required by this Contract and, if performed, would entitle the Consultant to additional compensation, the Consultant shall, prior to performing the service, deliver to the Owner a Notice in Writing setting out the Consultant's position on the matter and indicating the requested amount of additional compensation. If the Owner accepts the Consultant's claim for additional compensation the acceptance shall be in writing and signed by the Owner. If the Consultant fails to provide timely Notice in Writing or performs the service without receiving the Owner's written acceptance, the Consultant may, at the sole option of the Owner, be disentitled from receiving any additional compensation for performing the service in question.
 - (b) If the *Owner* does not agree with the *Consultant's* characterization of a service as an *Additional Service* or that it is a change to the *Services* under this *Contract* or does not

agree with the *Consultant's* claim for additional compensation, the *Owner* may direct the *Consultant* to perform the service in question. The *Consultant* shall comply with the *Owner's* direction and shall perform the service in question without prejudice to any right the *Consultant* may have to assert a claim for additional compensation. The *Consultant* shall maintain detailed records of the time spent by the *Consultant's* personnel and by *Subconsultants* and any disbursements devoted to performing the service in question. These detailed records shall be subject to audit by the *Owner*.

- (c) The Consultant shall not be entitled to charge additional fees on the issuance of change orders and/or change directives under the Construction Contract unless all contingencies and cash allowances under the Construction Contract have been exhausted and then only where the change order or change directive is issued under the Construction Contract in respect of an Owner directed scope change or unforeseen conditions. Where a change order or change directive issued under the Construction Contract is in respect of a design issue, then the Owner and the Consultant shall use reasonable commercial efforts to agree on whether or not the Consultant is entitled to additional fees in respect of that change order or change directive. If the parties cannot agree, the failure to agree becomes a matter in dispute between the parties."
- 3.11.3 Delete paragraph 4.1.5 and replace it with the following:
 - "4.1.5 The *Consultant* shall maintain, and shall cause its *Subconsultants* to maintain, to acceptable accounting standards and for a period of at least seven (7) years after the completion or termination of this *Contract*.
 - detailed records of the hours of work and time charged to the Owner on the basis of hourly rates;
 - (b) all records relating to *Reimbursable Expenses*;
 - (c) all records relating to charges and expenses pertaining to *Additional Services* or changes in the *Professional Services*,

and the *Owner*, or its representatives may, upon reasonable notice, inspect and audit such records including books, payrolls and accounts of the *Consultant* and its *Subconsultants* with respect to any payments made to the *Consultant* or by the *Consultant* to its *Subconsultants*, and with respect to all *Reimbursable Expenses* and other expenses charged by the *Consultant* or its *Subconsultants*."

- 3.11.4 Add a new paragraph 4.1.6 through 4.1.8 as follows:
 - "4.1.6 Notwithstanding any provision in the *Contract Documents* to the contrary, the *Owner* may withhold payment to the extent required to offset any previous over-payment made to the *Consultant*, damages or costs incurred by the *Owner*, or to the extent as may be necessary to protect the *Owner* from loss or damage or potential loss or damage as a result of:
 - .1 the *Consultant's* failure to perform any of its material obligations, or where the *Consultant* is otherwise in default under the *Contract Documents* and any such default is continuing;
 - .2 claims or reasonable evidence indicating possible commencement of claims for which the *Consultant* may be responsible to indemnify the *Owner*,
 - .3 the *Consultant's* failure to make prompt payments to *Subconsultants* and *suppliers* respecting *services* for which the *Owner* has made payment to the *Consultant*, and
 - .4 the *Consultant's* failure to remove any liens arising from the *Professional Services* or otherwise to satisfy its obligations under GC 8.1 CONSTRUCTION LIENS AND ACTIONS.
 - 4.1.7 Where the *Owner* has withheld payment to the *Consultant* pursuant to the provisions of the *Contract*, the *Owner* shall be entitled to apply the funds withheld toward the cost of any required remedial services, or toward damages or losses suffered and for which the *Owner* is entitled to compensation under the *Contract*.
 - 4.1.8 As of the date of the *Consultant's* final invoice or application for final payment, the *Consultant* expressly waives and releases the *Owner* from all claims about which the *Consultant* knew or should have known including, without limitation, those claims that might arise from the negligence or breach of contract by the *Owner*. Such release excludes those claims made in writing by the *Consultant* prior to the date of the *Consultant's* final invoice or application for payment and which remain unsettled."

SUPPLEMENTARY CONDITIONS

CCDC 31-2020 SERVICE CONTRACT BETWEEN OWNER AND CONSULTANT Project:

3.12 GC 5.1 TERMINATION AND SUSPENSION

- 3.12.1 Amend paragraph 5.1.8 as follows:
 - (a) insert the word "material" after the words "If the Owner is in" in the first line; and
 - (b) add the following to the end:

"within ten (10) Working Days of receipt of the Notice in Writing."

- 3.12.2 Amend paragraph 5.1.9 by replacing the words "5 *Working Days*" with "ten (10) *Working Days*" in the first, second, and third lines.
- 3.12.3 Amend paragraph 5.1.10 as follows:
 - (a) delete the words "If the *Owner* is unwilling or unable to proceed with the *Project*" and replace them with: "At any time and for any or no reason".
 - (b) add the following to the end:

"In such case the *Consultant* shall be compensated for all *Professional Services* performed to the effective suspension or termination date, together with *Reimbursable Expenses* then due and any reasonable out of pocket expenses actually incurred by the *Consultant* which are directly attributable to the suspension or termination of *Professional Services* and for which the *Consultant* is not otherwise compensated. Such expenses shall not exceed the sum of \$2,500 provided the *Consultant* has substantiated all such expenses to the *Owner*'s satisfaction and subject to any rights of set off which the *Owner* may have at law or equity or under this *Contract.*"

- 3.12.4 Delete paragraph 5.1.11 and replace it with the following:
 - "5.1.11 If the *Project* is resumed after being suspended, the fee and the *Contract* schedule shall be adjusted in collaboration with the *Owner*."
- 3.12.5 Amend paragraph 5.1.12 by deleting the words "and for such demonstrable costs the *Consultant* may have sustained as a result of the termination" and substituting the following:

"In such case the *Consultant* shall be compensated for all *Professional Services* performed to the effective termination date, together with *Reimbursable Expenses* then due and any reasonable out of pocket expenses actually incurred by the *Consultant* which are directly attributable to the termination of *Professional Services* and for which the *Consultant* is not otherwise compensated. Such expenses shall not exceed the sum of \$2,500, provided the *Consultant* has substantiated all such expenses to the *Owner*'s satisfaction and subject to any rights of set off which the *Owner* may have at law or equity or under this *Contract.*"

- 3.12.6 Add new paragraph 5.1.13 and 5.1.14 as follows:
 - "5.1.13 In no event shall the Owner be responsible or liable to the Consultant for any consequential, indirect or special damages, including damages for loss of profit or loss of opportunity, both direct and indirect, as a result of any breach of this Contract by the Owner or arising from or as a result of any suspension or termination, regardless of whether such damages are incurred by the Consultant or any Subconsultants.
 - 5.1.14 The *Owner* shall have no further or other liability to the *Consultant* as a result of the suspension or termination of this *Contract* except as described in this GC 5.1."

3.13 GC 5.2 OWNERSHIP AND USE OF DOCUMENTS, PATENTS, AND TRADEMARKS

- 3.13.1 Amend paragraph 5.2.3 by replacing "Provided the fees and *Reimbursable Expenses* of the Consultant are paid" with "Provide the Owner has paid all undisputed fees and *Reimbursable Expenses* to the Consultant,".
- 3.13.2 Amend paragraph 5.2.8 by replacing "paid the fees" with "paid the undisputed fees" in the first sentence and replacing "being paid for" with "being paid the undisputed amounts for".

SUPPLEMENTARY CONDITIONS

CCDC 31-2020 SERVICE CONTRACT BETWEEN OWNER AND CONSULTANT Project:

3.14 GC 5.4 CONFIDENTIALITY AND IDENTIFICATION

- 3.14.1 Delete paragraph 5.4.1 and replace it with the following:
 - "5.4.1 Confidential Information and Information Security.
 - (a) During the course of this Contract the Owner may disclose to the Consultant certain confidential and proprietary information including, without limitation, information respecting the Owner's operations, terms of this Contract, business methods and systems, contractual terms, pricing and personal information (collectively, "Confidential Information"). The Consultant agrees that it will not disclose Confidential Information to third parties and that it will protect Confidential Information with the same standard of care as it would use to protect the confidentially of its own confidential information which shall be, at a minimum, a reasonable standard and, in any event, the Consultant shall protect the confidential information as may be required by law during the term of this Contract and thereafter. The Consultant acknowledges that unauthorized disclosure or use of the Confidential Information could cause irreparable harm and significant injury to the Owner and, as such, monetary damages may not be sufficient remedy. Accordingly, the parties agree that the Owner will have the right to seek and obtain specific performance and/or injunctive relief to enforce the obligations of this Contract in addition to any other rights or remedies it may have.
 - (b) All records, files, products, computer programs, data and any other material belonging to the Owner that come into the possession or control of the Consultant or the Subconsultants will, at all times, remain the property of the Owner. Upon completion or termination of this Contract and upon written request of the Owner, the Consultant will immediately deliver to the Owner all property of the Owner remaining in the Consultant's possession or control. The obligations in this GC 5.4.1 shall survive the expiration or termination of this Contract.
 - (c) The Consultant further agrees that it will not disclose Confidential Information internally to its own employees or to any Subconsultants except on a "need to know" basis and that it will not use any Confidential Information for any purpose other than the purpose for which it was disclosed to the Consultant. The Consultant further agrees not to release any copies of any Confidential Information without written authorization from the Owner and, upon Owner's request, the Consultant agrees to return to Owner all tangible embodiments of Confidential Information shall not apply to any information that is required to be disclosed by applicable law, regulations or judicial process. Provided, however, that the Consultant shall give Owner Notice in Writing at least ten (10) Working Days' prior Notice of Days before any intended disclosure together with the relevant provision of law, regulation or judicial process under which the disclosure is intended to be made. The Consultant agrees, if requested by the Owner.
 - (d) Confidential Information shall not include information that:
 - (i) is already known to the Consultant at the time it was first obtained from the Owner,
 - (ii) becomes publicly known through no wrongful act of the Consultant;
 - (iii) becomes known to the *Consultant* through a third party on a non-confidential and non-restricted basis;
 - (iv) was independently developed by personnel of the *Consultant* without access to or reference to the *Confidential Information*.

The burden of proving any of the foregoing exceptions shall be on the Consultant."

- 3.14.2 Amend paragraph 5.4.2 by inserting the words "Subject to the *Owner's* prior review and approval," at the beginning of the second sentence.
- 3.14.3 Add a new paragraph 5.4.3 as follows:
 - "5.4.3 The *Consultant* shall not publish, issue or make any statements or news release, electronic or otherwise, concerning the *Contract*, the *Professional Services*, the *Work*, or the *Project*, and shall not use the *Owner's* name, logo, etc. without the prior express written consent of the *Owner*."

SUPPLEMENTARY CONDITIONS

CCDC 31-2020 SERVICE CONTRACT BETWEEN OWNER AND CONSULTANT Project:

3.15 GC 6.2 INDEMNIFICATION AND LIMITATION OF LIABILITY

- 3.15.1 Delete paragraph 6.2.2 and replace it with the following:
 - "6.2.2 The *Consultant* shall indemnify and hold the *Owner* and its agents, employees, officers, directors, and assigns harmless from and against any and all claims, demands and causes of action by third parties for personal injury or property damage resulting from any wilful or negligent act or omission by the *Consultant* or from any breach of the *Consultant's* obligations under this *Contract* and from and against all damages, losses, costs, charges and expenses, including full reimbursement of legal fees, which the *Owner* and its agents, employees, officers, directors, and assigns may sustain or incur or be liable for in consequence of such claims, damages or causes of action, except to the extent caused or contributed to by the negligence or breach of this *Contract* by the *Owner*. Provided that the liability of the *Consultant* to indemnify and hold harmless under this paragraph 6.2.2 shall be limited to an amount equivalent to the annual aggregate insurance limits set out in paragraph 6.1.2 or 6.1.3, as applicable, regardless of whether insurance is available."
- 3.15.2 Amend paragraph 6.2.2 by inserting the following at the end of the paragraph:

"Notwithstanding the foregoing, there shall be no limitation the *Consultant*'s liability for any claims or causes of action arises out of fraud, wilful misconduct, or gross negligence by the *Consultant*, or the *Consultant*'s employees, agents, representatives and *Subconsultants*."

3.16 GC 7.1 DISPUTE RESOLUTION

- 3.16.1 Add a new paragraph 7.1.11 as follows:
 - "7.1.11 If a dispute is not resolved promptly, the *Owner* will give such instructions as in the *Owner*'s opinion are necessary for the proper performance of the *Professional Services* and the *Work* and to prevent delays pending resolution of the dispute. The parties shall act immediately according to such instructions, it being understood that by so doing neither party will jeopardize any claim the party may have. If it is subsequently determined that such instructions were in error or at variance with the *Contract*, the *Owner* shall pay the *Consultant*'s costs incurred as a result of carrying out such instructions which the *Consultant* was required to do beyond what the *Contract* correctly understood and interpreted would have required."

3.17 PART 8 OTHER PROVISIONS

3.17.1 Add a new Part as follows:

"PART 8 OTHER PROVISIONS

GC 8.1 CONSTRUCTION LIENS AND ACTIONS

- 8.1.1 The *Consultant* shall save and shall keep the *Owner* and the *Project* and the *Place of the Work* free from all construction liens and all other liens whatsoever arising out of the *Professional Services* performed under this *Contract*. If a lien is filed or registered or any written notice of a lien is received by the *Owner* from anyone claiming through the *Consultant* or any *Subconsultant*, and provided the *Owner* has paid all amounts properly owing under this *Contract*, the *Consultant* shall, at its own expense, within ten (10) Working *Days* of being notified of the lien or written notice of a lien, secure the discharge, release, vacating or withdrawal of such lien or written notice of a lien by payment or by giving security or in such other manner as is or may be required or permitted by law, failing which the *Owner* may, but shall not be required, take such steps as it, in its absolute discretion, may deem necessary to release, vacate or discharge the lien or written notice of a lien.
- 8.1.2 All amounts, including solicitor and own client costs, interest and premium or other bonding costs incurred by the *Owner* in releasing, vacating or discharging any lien, claim for lien or written notice of a lien and/or dealing with any lien action or proceeding described in this GC 8.1 shall be charged to the *Consultant* and shall be set off and deducted from any amount owing to the *Consultant*. Nothing in this GC 8.1 shall derogate from any other right of the *Owner* to seek contribution or indemnity from the *Consultant* either at law or pursuant to this *Contract*.

GC 8.2 OWNER REVIEW

8.2.1 Wherever this *Contract* permits or requires the *Owner* to review, approve or consent to *Professional Services* provided or steps taken by the *Consultant* or any *Subconsultant*, such review, approval or consent by the *Owner* shall not relieve the *Consultant* of any of its obligations under this *Contract*.

GC 8.3 CONFLICT OF INTEREST

- 8.3.1 During the term of this *Contract*, the *Consultant* shall not engage in any activity or accept any employment, interest or contribution that would compromise, or reasonably appear to compromise, the *Consultant's* professional judgement with respect to the *Project* and/or the *Consultant's* performance of the *Professional Services*. In the event of a potential conflict between the *Consultant's* obligations under this *Contract* and any of the *Consultant's* other obligations or interests, the *Consultant* shall immediately notify the *Owner* of the nature of such potential conflict and shall not proceed to perform any further or additional *Professional Services* unless and until the *Owner* consents to same.
- 8.3.2 The *Consultant* acknowledges that, in the event that there is a breach or a threatened breach of any of the provisions of this GC 8.3, irreparable harm may be caused to the *Owner* and that the injury to the *Owner* may be difficult to calculate and inadequately compensable in damages. As a result, the *Consultant* agrees that the *Owner* shall be entitled to any available legal or equitable remedy including, without limitation, injunctive relief, and that no such remedy or claim therefor shall disentitle the *Owner* from claiming any other legal or equitable remedy including, without limitation, monetary damages.

GC 8.4 FORCE MAJEURE EVENTS

- 8.4.1 If and to the extent that a party's performance of any of its obligations under this *Contract* is prevented, hindered or delayed directly or indirectly by any cause or event beyond such party's reasonable control including but not limited to:
 - (a) fire, flood, earthquake, elements of nature or acts of God, epidemic, pandemic, acts of war, power or utility failures that extend beyond one day, labour disputes, strikes, lock-outs, material changes in laws or regulations, terrorism, riots, civil disorders, or
 - (b) orders, legislation, regulations or directives of any court, government or other public authority, including stop work orders or job closures or suspensions, made or issued as a result of a declaration of a state of emergency or the occurrence of an epidemic or pandemic, or
 - (c) delay arising from the impact of any of the events described in paragraphs 8.4.1(a) and GC8.4.1(b) on the *Contractor's* performance of any of its obligations under the *Construction Contract*,

(each such event a "Force Majeure Event"), then the nonperforming, hindered or delayed party will be excused from such non-performance, hindrance or delay, as applicable, of those obligations to the extent affected by the Force Majeure Event for as long as such Force Majeure Event continues and such party continues to use reasonable commercial efforts to promptly recommence performance, including through the use of alternate sources, workaround plans, or other means. The party whose performance is prevented, hindered or delayed by a Force Majeure Event will promptly notify the other party in writing of the occurrence of the Force Majeure Event describing in reasonable detail the nature of the Force Majeure Event.

- 8.4.2 Neither party shall be liable to the other for any delay or non-performance of its obligations under this *Contract* and shall not be entitled to recover costs incurred as a result of such non-performance or delay in the event and to the extent that such delay or non-performance is due to a *Force Majeure Event*.
- 8.4.3 The party whose performance is prevented, hindered or delayed by a *Force Majeure Event* may suspend such performance under this *Contract*, in whole or in part, for the duration of the *Force Majeure Event* (save and except for continuing to use efforts described in paragraph 8.4.1 to recommence performance) and shall resume performance of this *Contract* once the *Force Majeure Event* ceases.

3.18 SCHEDULE A

3.18.1 Delete SCHEDULE A – CONSULTANT'S SCOPE OF PROFESSIONAL SERVICES and replace it with the SCHEDULE A- SCOPE OF PROFESSIONAL SERVICES attached hereto.

END OF SUPPLEMENTARY CONDITIONS

Schedule A - SCOPE OF PROFESSIONAL SERVICES

7 APPENDIX: Design Brief

INTRODUCTION

Iglulik is an Inuit community of almost 2,000 in Nunavut. Iglulik has a history of longstanding inequalities between Inuit and non-Indigenous Canadians. Iglulik Inuit (Iglulingmiut) need the infrastructure and tools to manage and guide their social and economic future – the QIA Iglulik Community Building is a step in this direction supporting both the social and economic future for Iglulingmiut.

The vision for the new QIA Community Building is an inclusive space that provides for Inuit-led and conceived community-centric programming and training that is barrier-free and accessible to all, that highlights energy efficiency, and that is a space for wellness and healing, cultural learning, and children to learn rooted in their language and culture.

The objectives of the QIA Community Building are to:

- 1) Provide an accessible community space that supports community-driven programming such as:
 - early learning programs such as Aboriginal Head Start
 - Elders' and Youth programming
 - culturally rooted programming
 - wellness and healing supports
 - community training
- 2) Increase clean energy awareness through a building that serves as an educational tool by:
 - establishing an educational program on improving occupant energy behavior
 - creating an educational program for youth about the building that can be shared with local schools
 - including educational materials within the building that highlight energy efficiency and clean energy information
- 3) Create meaningful training and employment opportunities for Inuit through:
 - construction training and building maintenance employment opportunities
 - clean energy technology training and employment opportunities

DESIGN BRIEFS

Civil Design Brief

The proposed site is located along R21, facing the existing GN building to the northwest. The proposed building is single storey with an irregular footprint of approximately 1075m². Exterior access to be by galvanized steel stairs and accessible ramps to grade.

Site Services

Domestic water and sewage services in Iglulik are restricted to storage tank systems with periodic fills/removals by tanker truck. Domestic water and sewage tank storage will be need to be provided within a heated crawlspace. A compacted gravel service drive will need to be provided for local service truck access to fuel oil tanks, water fill, and sewage pump out.

Site Considerations

Based on the topo survey, photographs and available satellite imagery, the building site is relatively flat, with a fairly uniform mild slope towards the ocean in a southeast direction. The lot is oriented on a roughly southwest-northeast axis, with the proposed building placement towards the northeast portion of the site. The southwest portion of the site receives surface water from a culvert crossing the adjacent roadway R21 from the north. The surface water traverses the site in a southeast direction through an 8m wide drainage easement towards roadway R3, where it exits by culvert and continues downgrade to the ocean. Further north of the site is a small lake that is the primary contributor for spring run-off. Seasonal flows are expected to range from minimal to heavy, and may increase with climate change.

Site Improvements

General site grading will need to be away from the building to access existing flow pathways along roadways, and should utilize existing grades where possible to minimize required fill.

To mitigate future soil saturation and site flooding, drainage improvements will be likely required. Formation of a swale will better limit and direct seasonal flows on the site. Use of geotextile and rip-rap in the swale construction may be warranted. The upstream and downstream culverts will require inspection and possible upgrade. The adjacent properties to the south will be positively impacted by the improvements.

Architectural Design Brief

This 1075 m² mixed-use assembly facility is designed to house three distinct Community program functions: Community Centre; Wellness Centre; and Aboriginal Head Start (AHS), each with their own entry, foyer, and related support spaces. The Community main entry lobby will act as a focal point and contain cultural displays deemed appropriate for the intended use including locally produced art.

Looking at the front of the building, the left side will house the Wellness Centre consisting of its own accessible entry vestibule leading to two offices, two counseling/meeting rooms, a lobby/waiting area, universal washroom, and storage.

The center of the building is a main accessible entry leading to the Community Centre which includes two offices, a large lobby for cultural wall displays, small conversation seating, and a kitchenette, three multi-purpose rooms with modular operable walls which can be opened to permit one large community gathering for up to 147 persons. Also included is a large kitchen designed to serve both the Community Centre and the AHS program, and be used as a training classroom, janitor, and storage rooms.

The right side of the building will house a separate and secure AHS program designed to meet the needs of the present AHS enrollment plus projected growth up to a 20-year horizon. The AHS consists of a secure entry, secure lobby/check-in with cubbies for 81 children, 4 classrooms, an indoor activity room, an outdoor secure play area for 40 children at a time, two offices, boy's & girl's accessible washrooms, staff break, staff washroom, laundry room, shared kitchen with Community Centre program, janitor, and storage.

Exterior doors and frames will need to be thermally broken and exterior windows will be triple-pane, solar gray film, argon filled, with low-e glazing.

The roof is anticipated to be flat with slight slope for roof drainage. The flat roof needs to be designed for a future solar installation.

Interior wall finishes to be painted abuse resistant drywall throughout. Floor finishes to be commercial grade seamless linoleum sheet flooring with non-slip flooring in wet areas. Ceilings to be a combination of painted drywall and suspended acoustic tiles. Interior doors are to be painted solid core wood.

The crawlspace must include a self-adhered rubber spill containment membrane to protect the walls and floors from tank leaks.

Structural Design Brief

Substructures

Based on the subsurface information, foundations will be suitable for either adfreeze and/or rock-socketed steel pipe piles. The floor plan design and single storey yield a pile location grid that is desirable in terms of density and cost. Other foundation systems can be proposed as options, as long as they are cost effective and a proven track record with northern construction.

Superstructure

It is anticipated that the building structure will be conventional wood framed construction, with wood floor and roof joists in combination with steel or wood beams. Other systems including premanufactured insulated wall/roof and floor panels could also be considered.

Ancillary Structures

Exterior stairs and ramps are to be galvanized steel structures supported on a similar foundation system to the main building.

Mechanical Design Brief

Sanitary Drainage

- Sanitary holding tank in mechanical crawl space.
- Commercial grade plumbing fixtures.

Domestic Water

- Domestic storage tank in mechanical crawl space.
- Domestic pump and pressure tank
- Indirect water heater fed by boiler plant, tied in to combined heat and power system.

<u>Heating</u>

• The boiler plant will consist of 2 boilers with capacity of approximately 600 MBH. The oil-fired boilers will be connected to fuel tanks located outdoors. Boiler venting will be through the roof. Combustion air into the boiler room is required.

- Preheating of the hydronic system will be expected by a heat recovery system utilizing heat given off by the generator exhaust.
- Heating will be provided by perimeter radiant wall fin units. Each room will have a thermostat and control valve to control the temperature of the space.
- Ventilation to be provided by a heat recovery ventilator located in the mechanical room. The supply air will include a glycol mix hot water heating coil, to increase the temperature of the supply air to 18C. Fresh air will be ducted directly to each space, through a main supply duct routed through the corridor. Each space will also have exhaust air, from exhaust grilles located on the wall in each room. A solar wall to preheat the incoming outdoor air is also included in the design.
- Kitchen ventilation will consist of high-capacity kitchen exhaust hood.
- Exhaust louvers and fresh air intakes to be protected from wind and snow in typical Arctic climate installation requirements.
- Control systems will include temperature sensors for each room, freeze protection on heating coils, scheduled operation of ventilation system, and night setback controls for heating. Control systems should include direct digital control modules for zone valves, central boiler system, standby and duty pump controls, and integration of the micro-grid system.

Electrical Design Brief

Power Approach

- Initial estimates of peak power consumption are approximately 60 kW, approximately 330A, 240V.
- Power to the site will be provided by an onsite power plant.

Power Distribution

- A main switchboard interconnected with a network of automatic transfer switches and power panels.
- Power for vehicles at exterior parking rail.

<u>Lighting</u>

- Majority of lighting to be 2'x4' LED commercial lighting fixtures to be installed in suspended ceiling grid. Classroom/Activity rooms to have 10 fixtures. Community multi-function room to have 40, with controls for each individual section.
- Entry Lobby to have pendant fixtures.
- All areas to have occupancy sensors for control of lights. Offices will have motion sensors built into the light switches. Activity Rooms and Community room will have dual technology occupancy sensors mounted on the ceiling.
- Exterior lighting to exceed minimum standards for safe egress to and from the building while minimizing the amount of light pollution.

Fire Alarm System and Life Safety

• With an occupant load greater than 40, a fire alarm system will be required for this building. The main fire alarm control panel will be in the main entry lobby. A

combination of horn and horn/strobe devices will be required throughout the building to annunciate alarm signals in the event of a fire.

- Exit signs within corridor to direct occupants to exit doors.
- LED emergency lighting in each activity room, corridor, washroom, and kitchen, with battery packs located in the corridor.

Telephone & Communications

- Telephone and cable TV services will need to be provided to the building from the local supply point to the main telephone and main cable TV backboards located in the mechanical/electrical room.
- Data outlets wired back to telecom room required for all rooms other than washrooms. Allow for 4 per Classroom/Activity Room, 6 for Community Multi-Function Room, 2 per office/staff room
- CCTV IP based cameras at each entry door and each corner of the building.
- Secure Entry electric strikes and card readers at each entry door
- Intrusion detection at entry doors and windows.

RFP REQUIREMENTS

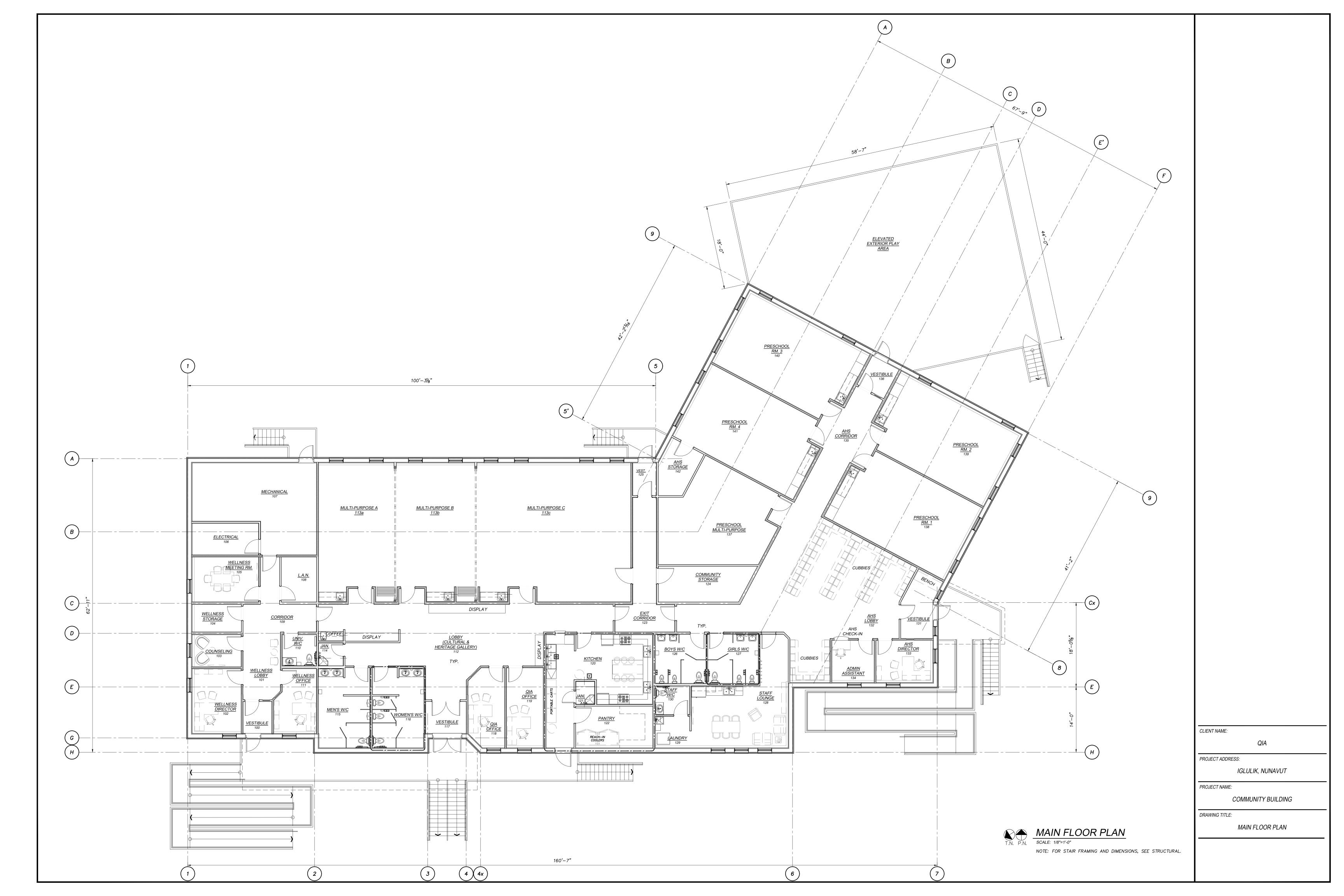
The following high level outline will be expected for the selected design team.

- Project Kick-Off Meeting with owner representative.
- Conduct a needs assessment with the prospective building occupants to ensure operational needs are met. It is presumed that this meeting will be via teleconference.
- Discuss, identify and implement revisions to the existing design concept, make any required changes, and "freeze" the floor plan.
- For development permit purposes, produce a schematic design report for the facility. Report to include preliminary drawing set; site plan, floor plans, building sections, elevations, code analysis, and system descriptions.
- Based upon the approved design concept and development approval, advance the design to approximately 50% and include detailed site plans, floor plans, room data sheets, building sections, elevations, structural framing, equipment layout, and mechanical/electrical system details.
- Advance working documents to approximately 99% completion for review.
- Submit drawings for site plan approval.
- Provide tender documents to owner and facilitate tender submission to various contractors. Answer any comments/questions during the tender process.
- Review contractor tender submissions and provide recommendations for award.
- Finalize and provide Issued for Permit (IFP) documents to the municipality for review. Incorporate and necessary revisions.
- Provide Issued for Construction drawings to QBDC.
- Submit Schedules A and B to the GN Building Official.

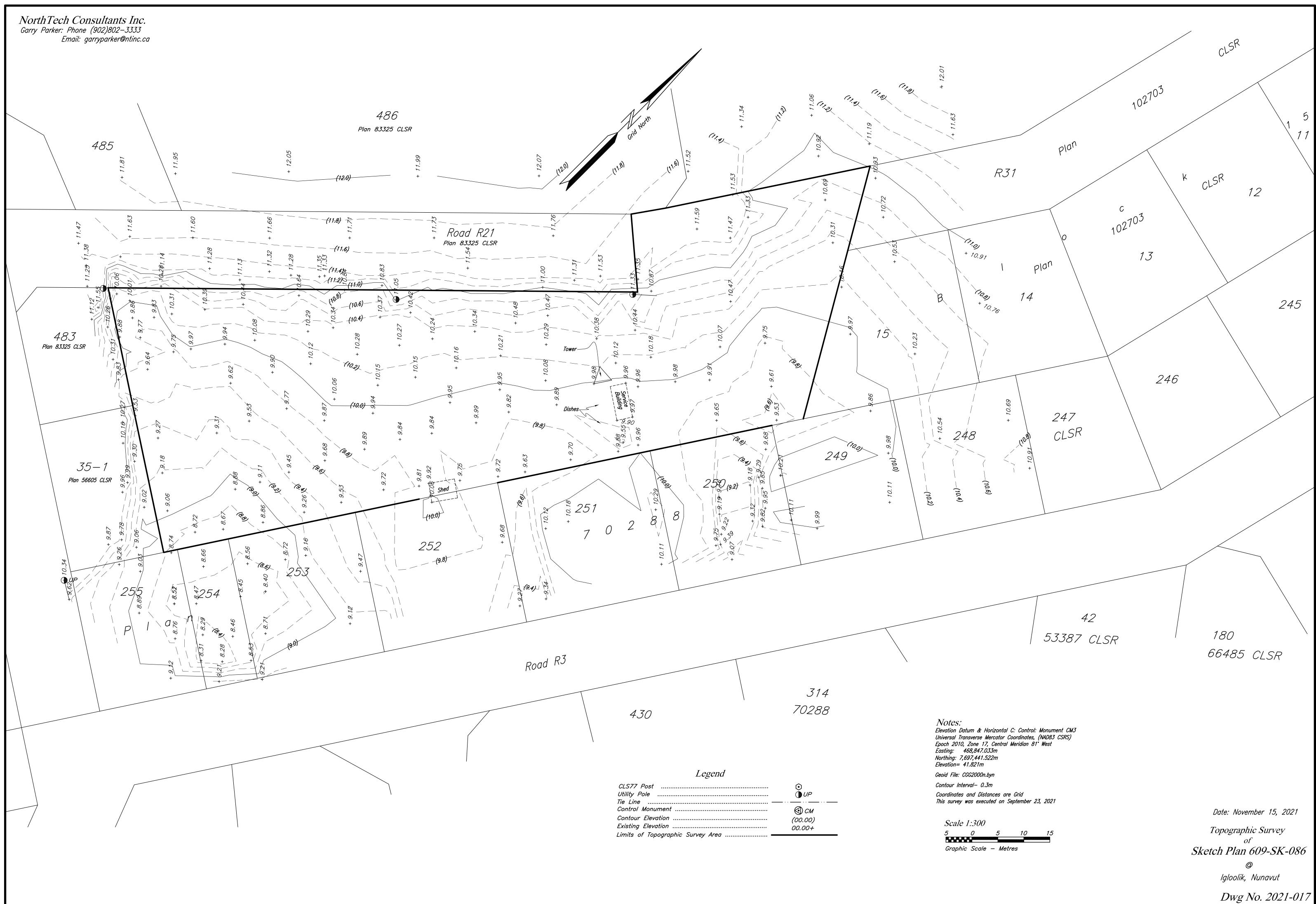
Construction Phase

During the construction phase:

- Review and distribute contractor supplied shop drawings.
- Attend construction meetings by teleconference.
- Review contractor requests for payment and provide payment certification to the owner.
- Respond to requests for information, submit site instructions as required.
- Provide periodic site inspections and reports during construction to ensure general compliance with the design intent and to satisfy GN commitment requirements.
- Attend substantial completion inspections and record deficiencies.
- Provide letters to the respective municipalities for occupancy purposes.
- Submit Schedules C and D to GN building official.
- Review O&M manuals and provide as-built record drawings.
- Perform warranty reviews.



8 APPENDIX: Topographic Survey



9 APPENDIX: Microgrid Design Brief

Igloolik Community Center Microgrid System Proposal

1

Nunavut Nukkiksautiit Corporation

Document Name	Igloolik Community Center – Microgrid System Proposal					
Date	October 14, 2024					

2024-10-15	1	СР	DC
Date:	Rev:	Prepared by:	Checked by:



Sheldon Nimchuk Director, Project Development and Partnerships Qikiqtaaluk Business Development Corporation 5300 Qulliq Court, Suite 200 Iqaluit, NU XOA 2H0

October 15, 2024

RE: QIA Community Centre – Igloolik

Dear Mr. Nimchuk,

Nunavut Nukkiksautiit Corporation (NNC) is pleased to submit this proposal for the QIA Community Centre to be built in Igloolik, in support of the submission under Infrastructure Canada's Green and Inclusive Community Buildings program.

As you are aware, NNC is a leader in the clean energy transition in Nunavut with active building and community-scale renewable energy projects under development in communities across the Qikiqtani Region. With valuable experience in Nunavut, NNC provides expertise on renewable energy development in the Territory and unique solutions to innovative technological solutions in Arctic climates. With the goal of reducing greenhouse gas (GHG) emissions and reducing electricity costs across Nunavut, NNC strives to work in close collaboration with communities across the Qikiqtani Region to achieve these goals.

In response to QBDC's request to submit a proposal for a Microgrid Concept for the QIA Community Centre in Igloolik, NNC, with its partner for this project, Solvest Inc., has prepared the attached proposal which details the project context, the project scope, our Northern experience and project pricing.

Should you have any questions, please don't hesitate to reach out to me at the contact information below.

Sincerely,

Clara Phillips

Clara Phillips

Technical Project Lead, Nunavut Nukkiksautiit Corporation <u>cphillips@qcorp.ca</u> 867-222-0840

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1 INTRODUCTION

Nunavut Nukkiksautiit Corporation (NNC) understands that Qikiqtaaluk Business Development Corporation (QBDC) is preparing a submission under Infrastructure Canada's Green and Inclusive Community Buildings (GICB) Program as it relates to the Qikiqtani Inuit Associated (QIA) Community Centre in Igloolik (the "Project"). It is understood that this Project would see a facility constructed in Igloolik to serve the community through a Wellness Centre, an Aboriginal Head Start location, and multipurpose community space.

As Nunavut sees some of the highest electricity costs in the country, operations and maintenance (O&M) costs can be highly burdensome for building owners. To reduce this burden, while simultaneously reducing the carbon footprint of the facility, QBDC has requested that NNC propose a solution for the facility to reduce energy costs and reliance on fossil fuels through the integration of renewable energy. With the current prohibitive restrictions in Nunavut related to behind-the-meter renewable energy systems, NNC is proposing to install a microgrid solution for the Project; this would see a solar photovoltaic array, battery energy storage system (BESS) and heat pumps coupled with two diesel generators.

This hybrid solution would ensure the Project is as close to net-zero as possible in Arctic climates, without comprising reliability. This microgrid system will supply 100% of the thermal and electrical needs of the Community Centre and the annual peak electrical demand will be reduced by 36% using onsite renewable energy/energy storage. That heat pumps will provide 100% of space heating using non-combustion-based technologies above -15C. There will also be a 22% reduction in GHG emissions.

2 PROJECT PARTNERS

2.1 Nunavut Nukkiksautiit Corporation

NNC is Nunavut's first 100% Inuit-owned renewable energy developer based in Iqaluit, Nunavut. NNC strives to work with communities in the Qikiqtani Region to identify clean energy solutions, build projects and deliver benefits back to Nunavummiut. NNC currently has several community-scale projects, such as a wind and battery storage project in Sanikiluaq and building-scale projects, such as a microgrid under construction on Inuit-Owned Land in Iqaluit. With vast experience in renewable energy project development in the Qikiqtani Region, NNC has some of the most informed renewable energy development experience specific to Nunavut in the country.

2.2 Solvest Inc.

For this project, NNC partnered with Solvest Inc. Solvest Inc., the industry leader in residential, commercial, and utility-scale solar projects North of 60°. Solvest has successfully demonstrated the ability to design, procure, and construct renewable energy production and storage facilities efficiently and effectively at competitive costs across Canada. Solvest's extensive experience in northern and remote settings and their total design approach have allowed them to continually deliver successful results in any northern location, weather, or budget. This experience, combined with a proven track record of working collaboratively with clients, establishes Solvest as the preferred partner for this project.

3 SYSTEM DESCRIPTION

3.1 Solar Array

A 157 kW DC/100kW AC solar array has been designed for the Community Centre. A 3D rendering of the solar array layout is given in 1. The solar photovoltaic system covers 75% of the gross roof surface to

4



maximize the solar energy that can be captured. The annual power production was modeled using Helioscope Solar software, an overview of the report is given in Figure 2 then the system was then integrated into HOMER Pro Microgrid Software. The Helioscope Report and HOMER Pro Report are given in Appendix A and B, respectively.



Figure 1: 3D rendering of solar array on community center

Project Name	Igloolik Community Centre
Project Address	Igloolik
Prepared By	Drew Cameron dcameron@solvest.ca

Design	Igloolik Community Centre - 2024
Module DC Nameplate	157.8 kW
Inverter AC	100.0 kW
Nameplate	Load Ratio: 1.58
Annual Production	127.3 MWh
Performance Ratio	80.3%
kWh/kWp	806.7
Weather Dataset	TMY, 10km Grid, Meteonorm 7 (meteonorm)
Simulator Version	7be6c42a66-3abe9f2198-be9eed1f55 8e021ddb71



9 Project Location



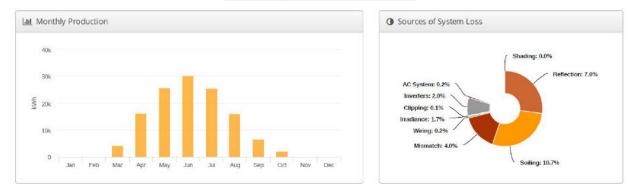


Figure 2: Screenshot from Helioscope Report



3.2 Battery Energy Storage System

The BESS selected for this project is a 240kW/672kWh (name plate 537kWh useable) Gell Battery which can be stored down to -40C° and includes its own microgrid controller. The BESS enclosure is inclusive of framing/insulation/lighting, HVAC system to support -40C° deployments, monitoring system, and independent internet connection for remote monitoring and support.

The BESS will be manufactured using a winterized enclosure and shipped to the site fully tested, pre-wired, and ready for integration into the existing power infrastructure. The BESS enclosure is designed to NEMA 3R equivalent standards and for ultra-low temperature operations. The Ultra Low-Temperature operation allows operations down to as low as -40 °C (- 40°F).

3.3 Microgrid Controller

A Microgrid Controller (MGC) comes with the selected BESS. It will monitor, coordinate, and optimize the proposed microgrid's power system components. The MGC will be configured for autonomous operation, prioritizing renewable energy utilization to reduce diesel consumption while considering power system constraints. At all times, the MGC will prioritize the health of the resources, including minimum loading and run time, respecting the high/low state of charge of the batteries, minimizing generator start/stop to decrease yearly maintenance costs and increase the life of the assets (generators and the BESS).

The MGC will utilize the capabilities of both energy storage inverters and generators to operate generatoroff as conditions allow and call on the generators as required for reliable power. The controls will also allow for cycle-charging of the batteries with excess energy from the generator to always operate at their maximum efficiency.

The MGC is also capable of functioning in a "grid connected" setting via a transfer switch so the microgrid can be integrated into Igloolik's electrical grid when the microgrid system is down for maintenance.

3.5 Generators

Two 150kVa/ 120 kW diesel generators will be included to provide firm power for the microgrid system. Only one is required to provide enough electricity for the microgrid's peak load, with the second engine for redundancy and security. The engines will run on diesel fuel and generate electricity through a generator on a shaft driven by the engine.

The diesel engines will be pre-constructed in individual enclosures, allowing for easier transportation and installation. Each enclosure will be soundproofed to 65 decibels (dBA) at 7m and have an extended "silencer" attached to the exhaust, carrying most of the sound to a height of 3m, where it is less likely to reverberate off objects. For reference, 65dBA is the equivalent to normal conversations in a business office. These options have been included to minimize "noise pollution" to the building occupants.

The generators will primarily run in 2–3-hour increments at 80-90% capacity to "cycle charge" the BESS. By utilizing this dispatch protocol, the generators always run at maximum efficiency, saving short-term costs through reduced diesel requirements *and* long-term costs because the generators will require fewer oil changes, service calls, and have a much longer lifespan, typically measured in hours of total run time.

Although this system could further reduce risk by remaining connected to the local utility's electrical grid for emergency supply, the utility does not permit behind-the-meter renewable electricity generation for commercial buildings at this time. The only policy that this project would fall under is the Commercial and



Institutional Power Producers' (CIPP) Policy. The Policy allows commercial and institutional users of electricity to generate and sell renewable electricity to QEC by entering into a Power Producer's Agreement for a 25-year term (Qulliq Energy Corporation, 2021).

According to QEC, the electricity rates are comprised of two components:

- 1. Variable cost, which is the cost QEC pays for diesel; and
- 2. Fixed costs, which include infrastructure, investments, and operations costs.

QEC states that to protect customers from electricity rate increases, the maximum amount they can pay CIPP proponents for energy generated by RE is the avoided variable component of electricity rates, i.e. the avoided cost of diesel fuel. This cost is recalculated annually based on the average fuel cost for the past three fiscal years. The current power purchase price under CIPP is \$0.2355/kWh (Qulliq Energy Corporation, 2021). This pricing structure does not accurately reflect the true avoided cost of diesel electricity generation in Nunavut. The price is only based on the avoided cost of purchasing fuel and it does not consider the cost savings associated with the integration of RE, such as reduced operations and maintenance (O&M) costs, increased lifespan of current equipment, savings for PPD through reduction of fuel imported, tank capital requirements and replacement of bulk storage, etc. Consequently, proponents under the CIPP Policy will not be adequately compensated for the electricity generated from RE and sold to QEC.

However, since behind-the-meter operations are not permitted in Nunavut, if the building owner wants to stay connected to the electrical grid and integrate RE, going under the CIPP Policy is the only option. The other option for a building owner who wants to integrate RE is to not connect to QEC's grid and have a system with the capacity and contingencies to support their power needs throughout the year. The latter is what NNC is proposing for the Community Centre. Under the CIPP Policy, there would not be a significant operational cost savings due to the rate structure of the Policy and the full benefits of the heat pumps and BESS will not be realized.

3.6 Heat Pumps

ASHPs are heating and cooling systems that use the principles of refrigeration to transfer heat between indoor and outdoor environments. ASHPs extract heat from the outdoor air (even in cold temperatures) and transfer it indoors for space heating. In the summer, they can reverse the process to provide cooling. ASHPs are known for their energy efficiency, as they can deliver more heat energy than the electrical energy they consume, achieving overall efficiency levels of up to 500% or more.

Figure 3 shows how an ASHP transfers heat and distributes it in a space. It also highlights the outdoor and indoor units required for the system. A similar set up would be applied to the community center, but at a larger scale.



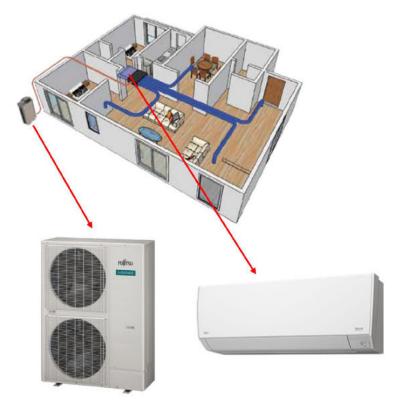


Figure 3: ASHP system with outdoor units (bottom left) and indoor units (bottom right) (Solvest Inc, 2023)

Similar to the impact that solar panels have on electrical loads, ASHPs are intended to *augment* and reduce the run time of existing oil boilers. Oil boilers operate at approximately 85% efficiency, whereas ASHPs require electricity (produced by diesel generators at ~38% efficiency *without* contributions from the solar array) but then use this power to draw heat from the ambient air. As long as the ASHPs are running at or above 230% (2.3 COP), this will yield a *net reduction* in the total diesel consumption by the microgrid (diesel generators and oil boilers.) In other words, the total electrical demand will increase at a rate that exceeds the reduction in boiler demand for a net reduction in diesel consumption. This is illustrated in Table 29 in the business case.

As an alternative to ASHP, an air-to-water heat pump (AWSHP) option. AWSHPs utilize the same principles as a traditional ASHP, but rather than circulating the heat to indoor units as presented in 3, they are designed to tie into existing hydronic heating systems shown in Figure 4. In the case of the community, this would mean tying directly into the proposed oil boiler system. The advantage of this heating alternative is that it has fewer parts (and associated installation costs) as they do not require the same indoor units as seen with a traditional ASHP system. A final determination on using ASHP or AQSHP will be made during the final engineering and design. Regardless of what type of heat pumps is chosen, they will provide 100% of space heating using non-combustion-based technologies above -15°C.



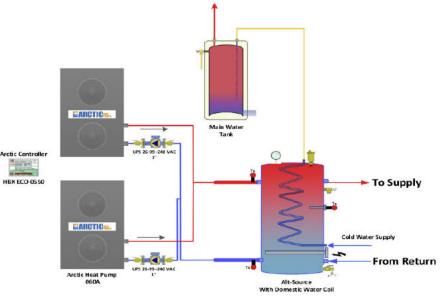


Figure 4: Air to water source heat pump system (Solvest Inc, 2023)

4 ENVIRONMENTAL AND FINANCIAL ANALYSIS

4.1 Energy Modelling Methodology

Since there is no one piece of software capable of accurately modelling this novel approach to renewable energy microgrids in the far north, the following multistep process was followed with specific notes on how this was integrated into RETScreen for a final submission to the GICB.

- Heating and Power Loads were extrapolated from an hourly profile for a similar multi use complex in Alaska and then scaled based on the Floor Area of the Igloolik Building to serve as a base case. This provided the values of 485MWh annual thermal load and 251 MWh for the electrical load.
- 2) The selected Heat Pump has an average COP of 3.55. The efficiency rating was then applied on an hourly basis for temperatures above -25C°. This reduced the thermal load by 210MWh (now 272MWh) while increasing the electrical load by 58MWh (new total of 310 MWh). The new electrical load was used for RETScreen and subsequent HOMER modelling. The Thermal load of 485MWh was used in RETSCreen and an "End-use energy Efficiency Measure" of 44% was imputed as we believed this provided a more accurate representation of the proposed system based on RETSCreen options. We found that if we selected the Air Pump option under "System Characteristics Peak or Intermediate Load heating" this added emissions back into the system that are already accounted for with the increase to the electrical load.
- 3) The rooftop PV system was modelled using Helioscope (Report Attached) and hourly values imported into HOMER Energy for final microgrid modelling. Note that the final production value of 127.3 MWh is reduced to 116MWh after the microgrid modelling.
- 4) HOMER Energy was used to model the final microgrid and used the revised thermal and electrical load profiles that were described in steps #1 and #2. The hourly PV systems were then imported



and balance of system components (Generators and batteries) inputed in order to provide the final values for how much of the renewable energy is used. The final figures from HOMER such as litres of diesel required for the new generators/boilers etc. Was used to produce the summary charts found in the rest of section 4.

4.2 Business as Usual Scenario Analysis

A "business as usual" (BAU) scenario was developed initially to build a business case for this proposal. Under the BAU case, the Community Center would be grid-connected with the electrical load fulfilled by purchasing electricity from QEC and the thermal load fulfilled using oil boilers.

The electrical and thermal loads (kWh) were used to find two main metrics – the total litres of diesel required and the associated cost to operate the Community Center as BAU. The methodology to calculate these metrics is outlined below.

Total Liters of Diesel

The total litres of diesel required to satisfy the electrical load in the grid connected scenario was determined by dividing the annual Igloolik generation (6,559 MWh after accounting for losses) by total diesel used in litres (1804) to provide an average efficiency of 3.645 kwh per litre of diesel.

GHG Emissions

While GHG consist of gasses other than CO2, for the purpose of this proposal, GHG emissions were estimated by only looking at the tonnes of carbon dioxide (CO2) per litre of diesel. The tonnes of CO2 per litre of diesel can be derived from the fact that there is 2.7×10^{-3} tonnes of CO2 per litre of diesel.

Total Cost

Under QEC's schedule of rates, the community center would classify as a non-government commercial building; therefore, the building owner would purchase electricity at a \$0.6287/kWh. The annual cost of electricity was determined by multiplying the electrical load (kWh) by the electricity rate (\$/kWh).

Since the thermal load will be fulfilled using oil boilers, the Community Center building owners will need to purchase heating fuel at \$1.4708/litre (Government of Nunavut, 2023). By multiplying the liters of diesel required to satisfy the thermal load (litres) by the heating fuel rate (\$/litre), the annual cost of heating was determined.

Table 1 summarizes the various inputs and parameters for this analysis. Table 2 shows the various metrics computed for the BAU case for each electrical load scenario.



Table 1: Inputs and Parameters for Analysis

Inputs			
Boiler Efficiency	85%		
Generator Efficiency	37.2%		
ASHP Average COP	3.55		
Commercial Rate	0.5554		
Fuel Rate Rider	0.0733		
Total QEC Rate	0.6287		
Igloolik QEC Generation - MWh	6559		
Igloolik - QEC- 1000s of Litres	1804		
Igloolik - QEC - Gen Efficiency	3.64		

Table 2: Business as Usual Analysis

Parameter	Electrical Thermal			
Load - kWh	251,850 485,450			
Total - kWh	737,300			
Diesel - L	69,285	58,996		
Total Diesel - L	128,281			
Cost Per Unit	\$0.6287 \$1.40			
Annual Cost	\$158,338 \$82,594			
Total Annual Costs	\$ 240,932			

Based on the calculations in the Table 3, it will cost \$241K annually to provide power and heat to the community center using traditional methods of electricity and thermal production.

4.3 Microgrid System Analysis

Next, the business case for using the microgrid system described in Section 3 was completed. Based on the equipment selected, the total litres of diesel required for each alternative were calculated along with the associated annual cost. The diesel reduction and cost savings for each alternative were determined using the BAU case for comparison. Table 3 shows the various metrics computed for the system and key points are highlighted below.

- The new system will increase annual electricity demand by 58,800 kWh because the heat pumps will need electricity to run. However, the heat pumps will also reduce the thermal load by 210,155 kWh per year which is almost a 50% reduction.
- The solar system will contribute 116,051 kWh of electricity towards the electrical load and will generate 25% of the total energy (electrical + thermal) needs of the building.



- The annual peak electrical demand is reduced by 36% using the renewable energy/storage system, compared to running the building under the business-as-usual case.
- Based on the electrical and thermal load of the building with the new microgrid system, the litres
 of diesel could be calculated. The implementation of the microgrid system results in a 22%
 reduction in GHG emissions compared to the BAU case based on our findings (verified by HOMER
 modelling results).
- It should be noted that there is a discrepancy between our findings of GHG reduction and the
 figures produced by RETScreen which shows a far more optimistic scenario. We believe this is
 partially due to limitations with the software as it was not created with our application in mind.
 Best efforts were made to accurately reproduce the HOMER modelling. RETScreen appears to
 accurately show the impact of the new microgrid in kWh but *does not* translate this into the
 associated GHG figures that we would have expected. The metrics related to GHG reductions on
 a per kWh basis appear to be fixed and likely use different weightings.

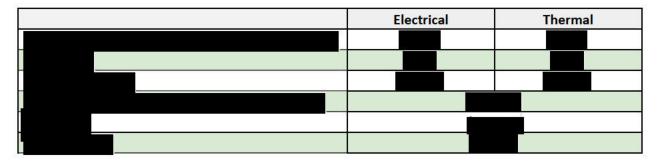
Metrics	Electrical	Thermal		
Annual - kWh	251,850	485,450		
Change – kWh	58,800	-210,155		
New Annual - kWh	310,650	275,295		
Energy from PV System	116,051	-		
kWh - After PV	194,599	275,295		
kWh - non-renewables	469,894			
kWh - BAU	737,300			
kWh - Offset	36.3%			
New Litres of Diesel	66,458 33,456			
New Total Diesel - L	99,914			
BAU Total Diesel - L	128,281			
Offset Diesel - L	28,367			
% Reduction in Diesel	22%			
GHG Emissions – Microgrid System	270 ton CO2			
GHG Emissions – BAU	346 ton CO2			
% Reduction in GHG Emissions	22%			

Table 3: Microgrid System Analysis – Environmental Factors

The microgrid system performs better compared to the BAU case from an environmental perspective, however, it also is better from a financial perspective. The microgrid system will save the building owner annually. Table 4 shows the various metrics that were calculated to determine the savings.



Table 4: Microgrid System Analysis - Financial Factors



5.0 PROJECT PRICING

Table 5: Project Pricing Building Blocks



6.0 CONCLUSION

NNC is recommending to install the microgrid system at the Community Center in Igloolik.



APPENDICES

Appendix A – Helioscope Report

Appendix B – HOMER Modelling Report



References

- Government of Nunavut . (2023, April 1). *Petroleum Products Division Retail Price List* . Retrieved from https://gov.nu.ca/sites/default/files/2023-03_cgs_ppd_price_list_-_eng_0.pdf
- Qulliq Energy Corporation. (2020). *Alternative Energy Report*. Retrieved from https://www.qec.nu.ca/sites/default/files/alternative_energy_report_final_4mar_eng_0.pdf
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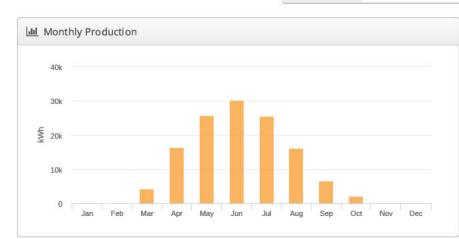
UHelioScope

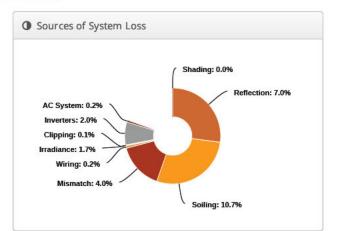
Igloolik Community Centre - 2024 gloolik Community Centre, Igloolik

Project Name	Igloolik Community Centre
roject Address	Igloolik
Prepared By	Drew Cameron dcameron@solvest.ca
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sc	

lgloolik Community Centre - 2024				
Module DC Nameplate	157.8 kW			
In verter AC	100.0 kW			
Nameplate	Load Ratio: 1.58			
Annual Production	127.3 MWh			
Performance Ratio	80.3%			
kWh/kWp	806.7			
Weather Dataset	TMY, 10km Grid, Meteonorm 7 (meteonorm)			
Simulator Version	7be6c42a66-3abe9f2198-be9eed1f55- 8e021ddb71			







UHelioScope

Annual Productio	n Report _I	produced by	Drew Cameron
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	Description	Output	% Delta
	Annual Global Horizontal Irradiance	1,006.5	
	POA Irradiance	1,004.2	-0.2%
Irradiance	Shaded Irradiance	1,004.2	0.0%
(kWh/m²)	Irradiance after Reflection	933.7	-7.0%
	Irradiance after Soiling	833.5	-10.7%
	Total Collector Irradiance	833.5	0.0%
	Nameplate	131,515.1	
	Output at Irradiance Levels	129,335.6	-1.7%
	Output at Cell Temperature Derate	135,904.6	5.1%
Energy	Output After Mismatch	130,448.2	-4.0%
(kWh)	Optimal DC Output	130,193.1	-0.2%
	Constrained DC Output	130,075.2	-0.1%
	Inverter Output	127,471.7	-2.0%
	Energy to Grid	127,259.9	-0.2%
Temperatur	e Metrics		
	Avg. Operating Ambient Temp		-4.5 °C
	Avg. Operating Cell Temp		-0.1 °C
Simulation M	letrics		
	c	perating Hours	4483
	Solved Hours		

Description	Condi	tion Se	et 1									
Weather Dataset	TMY,	10km (Grid, N	/letec	norr	n 7 (mete	ono	rm)			
Solar Angle Location	Meteo	Meteo Lat/Lng										
Transposition Model	Perez Model											
Temperature Model	Sandia Model											
	Rack Type			a b		b	b		Temperature Delta			
Temperature Model	Fixed	Tilt		-3.5	-3.56		-0.075		°C			
Parameters	Flush Mount -2.81		1	-0.0	455	0	0°C					
	East-West			-3.56 -		-0.075		3°C				
	Carport			-3.56 -0.07		75	3°C					
Soiling (%)	J	F	М	Α	м	J	J	A	s	0	Ν	D
Solling (%)	100	100	50	20	10	2	2	2	10	20	50	10
Irradiation Variance	5%											
Cell Temperature Spread	4° C											
Module Binning Range	0% to	0%										
AC System Derate	0.50%											
Module Characterizations	Module				Uploaded By		Characterization					
module characterizations	TS-BC (Thor		HelioScope		Spec Sheet Characterization, PAN		N					
Component	Device					Up By	loade	d	Char	acteri	zatio	
Characterizations	Sunny Tripower Co (SMA)			ORE1 50-US		He	HelioScope		Spec Sheet			

🖨 Compo	onents	
Component	Name	Count
Inverters	Sunny Tripower CORE1 50-US (SMA)	2 (100.0 kW)
AC Home Runs	2 AWG (Aluminum)	2 (135.6 m)
Strings	10 AWG (Copper)	17 (1,001.0 m)
Module	Thornova, TS-BGT72(580) (580W)	272 (157.8 kW)

H Wiring Zones			
Description	Combiner Poles	String Size	Stringing Strategy
Wiring Zone	2	16-16	Along Racking
Wiring Zone 2	2	2	Along Racking

III Field Segments									
Description	Racking	Orientation	Tilt	Azimuth	Intrarow Spacing	Frame Size	Frames	Modules	Power
Field Segment 1	Fixed Tilt	Portrait (Vertical)	Module: 0°	Module: 135°	0.3 m	1x2	136	272	157.8 kW

UHelioScope

Octailed Layout





System Simulation Report



File: 20241008 - NNC - Igloolik Microgrid - ASHP.homer

Author: Drew Cameron

Location: 95FG+24 Igloolik, NU, Canada (69°22.4'N, 81°49.5'W)

Notes: Igloolik Microgrid With ASHP - 2024 Update



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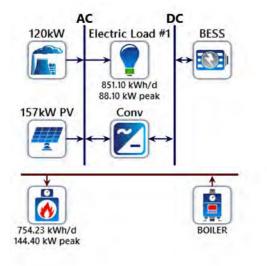
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Electrical Summary	4
Generator: 120kW (Diesel)	5
Storage: BESS	6
Custom Component: 157kW PV	7
Boiler: Generic Boiler	8
Fuel Summary	9



System Architecture

Component	Name	Size	Unit
Generator	120kW	120	kW
Storage	BESS	384	strings
System converter	Generic large, free converter	240	kW
Boiler	Generic Boiler	1.00	quantity
Custom component	157kW PV	1.00	
Dispatch strategy	HOMER Cycle Charging		

Schematic





Electrical Summary

Excess and Unmet

Quantity	Value	Units
Excess Electricity	11,209	kWh/yr
Unmet Electric Load	0	kWh/yr
Capacity Shortage	0	kWh/yr

Production Summary

Component	Production (kWh/yr)	Percent
120kW	243,185	65.6
157kW PV	127,260	34.4
Total	370,445	100

Consumption Summary

Component	Consumption (kWh/yr)	Percent
AC Primary Load	310,650	100
DC Primary Load	0	0
Deferrable Load	0	0
Total	310,650	100



Generator: 120kW (Diesel)

120kW Electrical Summary

Quantity	Value	Units
Electrical Production	243,185	kWh/yr
Mean Electrical Output	99.0	kW
Minimum Electrical Output	30.0	kW
Maximum Electrical Output	120	kW

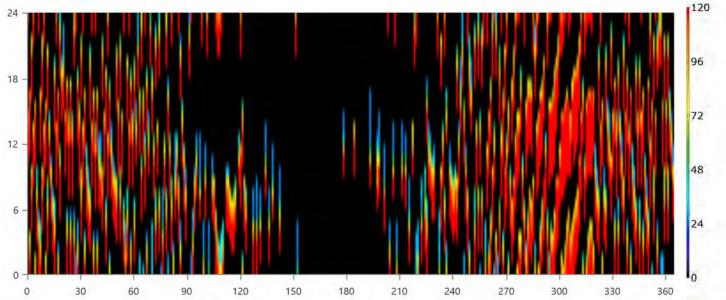
120kW Fuel Summary

Quantity	Value	Units
Fuel Consumption	66,458	L
Specific Fuel Consumption	0.273	L/kWh
Fuel Energy Input	653,945	kWh/yr
Mean Electrical Efficiency	37.2	%

120kW Statistics

Quantity	Value	Units
Hours of Operation	2,456	hrs/yr
Number of Starts	378	starts/yr
Operational Life	24.4	yr
Capacity Factor	23.1	%
Fixed Generation Cost	156	\$/hr
Marginal Generation Cost	0.288	\$/kWh







Storage: BESS

BESS Properties

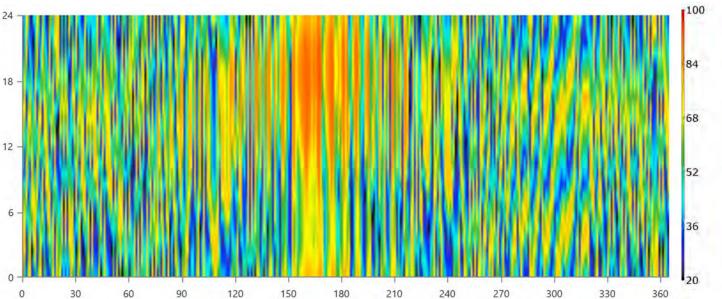
Quantity	Value	Units
Batteries	384	qty.
String Size	1.00	batteries
Strings in Parallel	384	strings
Bus Voltage	2.00	V

BESS Result Data

Quantity	Value	Units
Average Energy Cost	0.319	\$/kWh
Energy In	167,238	kWh/yr
Energy Out	134,163	kWh/yr
Storage Depletion	416	kWh/yr
Losses	33,492	kWh/yr
Annual Throughput	149,999	kWh/yr
Annual EFCs	234	1/yr
Average Daily EFCs	0.641	1/day

BESS Statistics

Quantity	Value	Units
Autonomy	14.5	hr
Storage Wear Cost	0.370	\$/kWh
Nominal Capacity	641	kWh
Usable Nominal Capacity	513	kWh
Lifetime Throughput	493,248	kWh
Expected Life	3.29	yr



BESS State of Charge (%)



Custom Component: 157kW PV

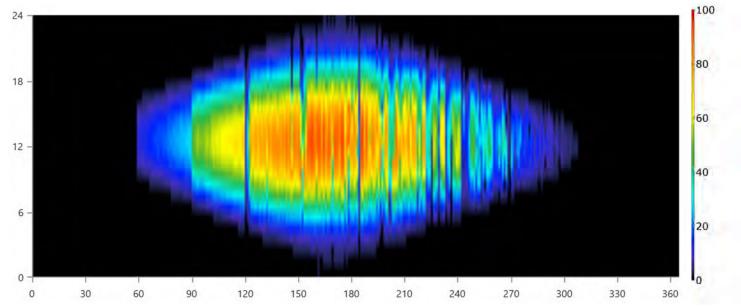
157kW PV Electrical Summary

Quantity	Value	Units
Minimum Output	0	kW
Maximum Output	99.7	kW
Hours of Operation	4,129	hrs/yr
Levelized Cost	0	\$/kWh

157kW PV Statistics

Quantity	Value	Units
Rated Capacity	1.00	
Mean Output	14.5	kW
Mean Output	349	kWh/d
Capacity Factor	14.6	%
Total Production	127,260	kWh/yr

157kW PV Output (kW)





Boiler: Generic Boiler

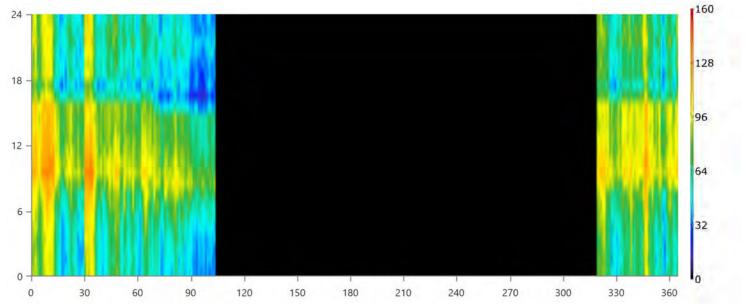
Generic Boiler Consumption

Quantity	Value	Units
Fuel consumption	33,456	L/yr
Specific fuel consumption	0.122	L/kWh
Fuel energy input	323,877	kWh/yr
Mean efficiency	85.0	%

Generic Boiler Production

Quantity	Value	Units
Hours of operation	3,600	h/yr
Total production	275,295	kWh/yr
Mean output	31.4	kW
Min. output	14.0	kW
Max. output	144	kW

Generic Boiler Heat Output (kW)

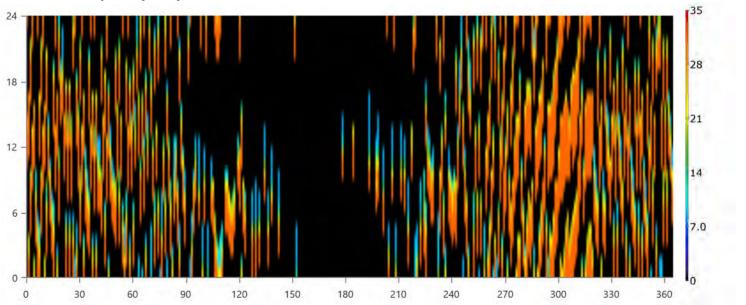




Fuel Summary

Diesel Consumption Statistics

Quantity	Value	Units
Total fuel consumed	66,458	L
Avg fuel per day	182	L/day
Avg fuel per hour	7.59	L/hour



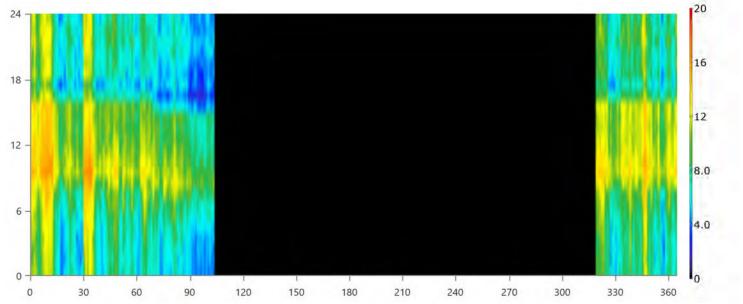
Diesel Consumption (L/hr)

Arctic Diesel Consumption Statistics

Quantity	Value	Units
Total fuel consumed	33,456	L
Avg fuel per day	91.7	L/day
Avg fuel per hour	3.82	L/hour



Arctic Diesel Consumption (L/hr)



Emissions

Pollutant	Quantity	Unit
Carbon Dioxide	264,360	kg/yr
Carbon Monoxide	0	kg/yr
Unburned Hydrocarbons	0	kg/yr
Particulate Matter	0	kg/yr
Sulfur Dioxide	617	kg/yr
Nitrogen Oxides	0	kg/yr