



**REQUEST FOR TENDER
FOR THE PROVISION OF CONSTRUCTION SERVICES FOR
LAKE GERALDINE DAM CIVIL IMPROVEMENTS**

BID CALL: MAY 9, 2022

BIDS DUE: MAY 23, 2022

2022-RFT-028

SECTION A – TENDER CALL

1. INTRODUCTION

- 1.1 The City of Iqaluit Department of Public Works and Engineering (the City) is issuing a Request for Tender (RFT) for qualified Proponents to provide construction services as further outlined in this RFT document. The purpose and objectives of this project are to complete repairs on the concrete dam, install monitoring stations for sensor data, and install survey monuments.

Bidders should be aware that the City of Iqaluit has two additional projects that may be occurring at the same time that work of this contract is being completed:

- Installation of power poles and electrical cabling along the downstream face of the dam and earthen berms by QEC.
- Removal and replacement of sealant material within the concrete dam by another contractor.

The contractor is responsible for any as-needed coordination with other workers and all associated costs shall be carried under the contractor's bid.

2. BACKGROUND

2.1 Location:

Iqaluit is the capital of Nunavut and is located at the south end of Baffin Island, Frobisher Bay 64°31'N latitude and 68°31'W longitude. Access to Iqaluit is provided by regular scheduled commercial aircraft year-round, snowmobile trails from other Baffin Island communities in the winter, and sealift from the port of Montreal in the summer.

2.2 Geology and Terrain:

Iqaluit's location is above the tree line and within the continuous permafrost zone of Canada. The region generally consists of glacially scoured igneous/metamorphic terrain. In some locations, a thin layer of organic material is found.

2.3 Climate:

Iqaluit has an Arctic climate with January and July high and low mean temperatures of -21.5° C/ -29.7° C (high/low) and 11.4° C/3.7° C (high/low) respectively. The annual precipitation is made up of 19.2 cm of rainfall and 255.0 cm of snowfall. The prevailing winds are northwest at 16.7 km/hr.

3. TENDER CALL



CONSTRUCTION SERVICES
PART I – PROCUREMENT AND CONTRACT REQUIREMENTS



- 3.1 Proponents must submit their Tenders by electronic bid submission only, through MERX Canadian Public Tenders. MERX can be accessed via the following website link – <https://www.merx.com/>. Tenders must address tenders to:

City of Iqaluit
Att: Alison Drummond
Senior Director of Corporate Services
901 Nunavut Drive, P.O. Box 460
Iqaluit, Nunavut, X0A 0H0

- 3.2 Tenders are required to conform to the conditions below. For further instructions on how to submit an electronic bid through MERX, refer to the MERX Electronic Bid Supplier Guide, via the following link – <https://marketing.merx.com/Support/EBSGuide.pdf>. Alternatively, you can contact MERX customer service at 1-800-964-6379.
- 3.3 Bidders must obtain a unique PIN number from MERX in order to upload electronic bid submission documents. It is important to keep this PIN number in a permanent location as it will be required each time you wish to submit a bid response to a call to tender.
- 3.4 Electronic Tenders are to be received before **May 23 at 3:00 PM EST** local Iqaluit time.
- 3.5 The final decision on whether to accept late Bids is at the City's discretion.

END OF SECTION

SECTION B – TENDER CONDITIONS

1. SUBMISSION REQUIREMENTS

- 1.1 The Tenderer shall complete all documents pertaining to this Contract in ink or in type.
- 1.2 If the Tenderer is a corporation, an authorized officer of the corporation shall sign and seal the Form of Tender.
- 1.3 If the Tenderer is a partnership, a minimum of two partners shall sign the Form of Tender and signatures shall be witnessed.
- 1.4 If the Tenderer is a sole proprietorship, the sole proprietor shall sign the Form of Tender and the signature shall be witnessed.
- 1.5 The Tenderer shall submit its Tender by the date and time specified in Part I of the Tender.
- 1.6 The Tenderer shall submit to the City in their complete bid submission:
 - .i Completed Form of Tender Form, which includes:
 - .a Appendix A – Consent of Surety.
 - .b Appendix B – Cost Submission Form.
 - .ii Bid bond.

Failure to submit the required items identified in (ii) and (iii) may present a Major or Minor Irregularity on the bid. Refer to 1.7 and 1.8 on how Major and Minor Irregularities are to be addressed. The City shall be the sole judge of whether or not a Tender contains irregularities.
- 1.7 Bidders will be automatically disqualified for any Major Irregularities on their bid submission. Major Irregularities are defined as deviations from the competitive procurement process request that affects the price, quality, quantity or delivery, and is material to the award.
- 1.8 Tender irregularities that are Minor Irregularities will be handled in the first instance by conferring with the Tenderer to seek clarification. Minor Irregularities are defined as deviations from the competitive process request, which affects form, rather than substance. The effect on the price, quality, quantity or delivery is not material to the award. The bidder will be given the opportunity to adjust the irregularity and continue in the process. However, if an unsatisfactory irregularity remains after consulting with the Tenderer, the Tenderer may be disqualified.

- 1.9 The Tenderer shall submit electronic files through MERX for both their Security Deposit and Consent of Surety, alongside the electronic tender submission.
- 1.10 The successful Tenderer shall submit to the City the following documents within five (5) business days of the day the City notifies the successful Tenderer that the documentation should be sent to the City.:
 - .i Valid City of Iqaluit Business License.
 - .ii Form of Tender forms, which include
 - .a Appendix C – Subcontractors List.
 - .b Appendix D – Equipment List.
 - .c Appendix E – Product Suppliers List.
 - .d Appendix F – Labour & Equipment Rates.

2. INQUIRIES AND AMENDMENTS

- 2.1 All inquiries concerning this RFT are to be directed by email only to:

Alison Drummond
Senior Director of Corporate Services
E: a.drummond@iqaluit.ca
- 2.2 The deadline for submitting inquiries is **May 16 at 3:00 PM EST** local Iqaluit time.
- 2.3 Written addendums issued as part of this RFT, in response to inquiries, will be posted publicly on the City's website and on MERX. Verbal explanations or instructions will not be binding.
- 2.4 Tenderers assume all risk of delivery of amendments. Without limiting the foregoing, the City shall not be held liable for any claim, demand or other action should a transmission be interrupted, not received in its entirety, received after the Closing Time, received by another electronic means other than specified through MERX, or for any other reason over which the City does not have control.

3. SECURITY DEPOSIT

- 3.1 Every submission shall be accompanied by a security deposit payable to the City of Iqaluit, in an amount not less than 10% of the total Tender amount. The security deposit shall be in the form of one of the two following security deposit options and shall be submitted with the tenderer's electronic tender submission.:
 - 3.2 **OPTION #1: A Digital Bid Bond**

- .i Tenderers shall submit a copy of the Digital Bid Bond and follow the submission instructions as stated above in Section 1.9.
 - .ii If Tenderer's are using this option, the Tenderer and the Tenderer's Surety should refer to the digital bonding information on Surety Association of Canada's website. Information at this site includes:
 - .a A list of third parties that provide online surety digital bond services, such as Mobile Bonds or Xenex. The City does not endorse or promote any third-party digital bond service provider.
 - .b An Industry Checklist which digital bonds provided should meet.
 - .iii The Digital Bid Bond shall be digitally verifiable. The results of the digital verification process shall provide a clear and immediate indication that the document received is the true document executed and that the content has not been changed or altered.
 - .iv All instruction details for performing the digital verification of the bond should be included with the uploaded bond and be clear and concise.
- 3.3 **OPTION #2: Scanned Paper Bid Bond / Certified Cheque, Bank Draft, Money Order (PDF Format)**
- .i Tenderer's shall scan and attach a copy of the paper Bid Bond, Certified Cheque, Bank Draft or Money Order and follow the submission instructions as stated above in 1.9. Tenderer's will be required to provide to the City the original Bid Bond, Certified Cheques, Bank Draft, and/or Money Order that were scanned and attached with the tender submission within 72 hours of tender close. Failure to provide the above original document(s) or to enter into a contract may result in the tenderer being barred from future tender opportunities for the City of Iqaluit for an indeterminate period of time.
 - .ii If an alternative Bid Bond is used, it is recommended that tenderer's request either an ink seal from their Surety or that they trace over the embossed seal prior to scanning to allow for the seal to be visible to the City.
- 3.4 Bid bonds shall be in the name of the City of Iqaluit as obligee and signed and sealed by the Tenderer and by a surety licensed to conduct business as a surety in Nunavut.
- 3.5 The City shall not pay interest on security deposits.

- 3.6 Bid bonds shall be Bid Bond Form CCDC Document No. 220, latest edition, effective until sixty (60) business days after the Closing Date.
- 3.7 Security deposits will be returned after delivery to the City of the required performance bond and labour and material payment bond by the successful Tenderer.
- 3.8 If the Contract is not awarded, all security deposits will be returned with reasonable promptness after such decision is made by the City.
- 3.9 After all executed contracts and bonds are received, and the contract award is made, the successful tenderer and the contract value will be posted on the MERX website. After contract award, the bid deposit of the successful tenderer and all tenderers shall be null and void.

4. CONSENT OF SURETY

- 4.1 Tenderers must submit with the Bid and Bid Bond, a “Consent of Surety,” stating that the surety is willing to supply the performance bond and labour and material payment bond as specified.
- 4.2 A “Consent of Surety” shall be in one of the two following options and shall be submitted with the Tenderer’s submission and as instructed above in 1.9.
 - i. The City’s “Consent of Surety” Form provided in Appendix A.
 - ii. Other “Consent of Surety” Form used by a Surety company and authorized by law to do business in the Territory of Nunavut, and acceptable to the City.

5. PERFORMANCE ASSURANCE

- 5.1 The accepted Bid shall provide security (by way of bonds or a security deposit) as stated in the Contract Documents.
- 5.2 The cost of all security shall be included in the Tender prices.

6. ORDER OF PRECEDENCE

- 6.1 The following order of precedence will apply:

Order of Precedence
Issued Addenda
SERVICE AGREEMENT
PROCUREMENT AND CONTRACT REQUIREMENTS
SUPPLEMENTAL CONDITIONS
GENERAL CONDITIONS
SPECIFICATIONS

ISSUED FOR CONSTRUCTION DRAWINGS

7. TERMS AND CONDITIONS

- 7.1 Submission of a Bid constitutes acknowledgement that the Tenderer has read and agrees to be bound by all the terms and conditions of this RFT.
- 7.2 The City will not make any payments for the preparation of a response to this RFT. All costs incurred by a Tenderer will be borne by the Tenderer.
- 7.3 This is not an offer. The City does not, by virtue of this Tender call, commit to an award of a Bid, nor does it limit itself to accepting the lowest price or any Bid submitted, but reserves the right to award this Bid in any manner deemed to be in the City's best interest.
- 7.4 Tenderers may amend their Bid at any time prior to the closing date time. Tenderers may not amend their Bid after the closing date time.
- 7.5 The City has the right to cancel this RFT at any time and to reissue it for any reason whatsoever, without incurring any liability and no Tenderer will have any claim against the City as a result of the cancellation or reissuing of the RFT.
- 7.6 The City will not consider any Bid that is delivered to any address or in any manner other than that provided in Part I Tender Call of this RFT.
- 7.7 If a contract is to be awarded as a result of this RFT, it will be awarded to the Tenderer whose Bid for each service, in the City's opinion, provides the best potential value to the City and is capable in all respects to perform fully the contract requirements and has the integrity and reliability to assure performance of the contract obligations.
- 7.8 If the City decides to award a contract based on a submission received in response to this RFT, the Successful Tenderer(s) will be notified of the intent to award in writing, and the subsequent execution of a written agreement shall constitute the making of a Contract. Tenderers will not acquire any legal or equitable rights or privileges whatsoever until a Contract is signed by both parties.
- 7.9 Any resulting contract will be in the form of the City's standard "City of Iqaluit Services Agreement" and it will contain the relevant provisions of this Request for Tenders, the accepted bid as well as such other terms as may be mutually agreed upon, whether arising from the accepted bid or as a result of any negotiations prior or subsequent thereto. The City reserves the right to negotiate modifications with any Tenderer who has submitted a Bid.
- 7.10 A copy of the Services Agreement is included in RFT.
- 7.11 Any amendment made by the City to the Request for Tender will be issued in writing and posted onto the bidding platform in accordance with Section 2.

- 7.12 The Bid and accompanying documentation submitted by the Tenderers are the property of the City and will not be returned. Bid bonds will be returned to all unsuccessful Tenderers.
- 7.13 Tenderers must acknowledge receipt of any addenda issued by the City in their Bid on the Section C – Form of Tender document.
- 7.14 Tenderers shall disclose in their Bid any actual or potential conflicts of interest and/or existing business relationships it may have with the City, its elected or appointed officials or employees. The City may rely on such disclosure.
- 7.15 Tenderers and their agents will not contact any member of the City Council, City Staff or City Consultants with respect to this RFT, other than the City Representative named in Part I Tender Call, at any time prior to the award of a contract or the cancellation of this RFT.
- 7.16 If an arithmetical error is identified in the submitted Bid between any individual price and the price extension (e.g. Unit Price x Quantity of Units), the individual price shall govern. The price extension and the total Bid amount will be corrected accordingly.
- 7.17 For contracts that include multi-phased work which spans more than the current fiscal year, authorization to proceed with work phases that are to be completed in future years is conditional upon approval of capital spending by the City of Iqaluit Council for each future year. Contracts will only be executed for work that has approved funding under the current fiscal budget.

8. VALIDITY OF OFFER

- 8.1 Bids shall remain open for acceptance for a period of not less than sixty (60) business days from the closing date of this RFT.

9. TENDER INELIGIBILITY

- 9.1 Bids that are unsigned, improperly executed, submitted to a location or in a manner other than specified in this RFT, incomplete, conditional, illegible, obscure or contain arithmetical errors, additions not called for, reservations, qualifications, erasures, alterations, or irregularities of any kind, or which are otherwise not completed or submitted in strict compliance with the Instructions to Tenderers, may be rejected by the City whether they constitute as a Major or Minor Irregularity.
- 9.2 Notwithstanding anything to the contrary herein, the City may in its sole discretion elect to retain any such Bid for consideration and may waive any or all of the foregoing, on such terms or conditions as the City may consider appropriate, even if any of the foregoing would otherwise render the Bid null and void and the Bid may be considered in the same manner as Bids that fully conform to the requirements of the Tender Documents without qualification.

10. REVIEW AND ACCEPTANCE OF BID

- 10.1 Upon receipt of the Bids, the City in its discretion may elect to conduct a post tender meeting with one or more Tenderers to discuss in detail their respective bid submission and such other items as the City may consider appropriate or necessary without invalidating the procurement process.
- 10.2 Before award of the Contract, the Tenderer may be required to provide specific information with respect to its legal and or financial status.
- 10.3 **THE LOWEST OR ANY TENDER WILL NOT NECESSARILY BE ACCEPTED.**
- 10.4 Notwithstanding any custom of the trade to the contrary, the City reserves the right to reject the lowest Bid, even if the lowest Bid is a compliant Bid, accept any Bid or part thereof, negotiate any aspect of any Bid, advertise for new Bids, negotiate a contract as the City deems to be most advantageous to the City's interest without incurring any liability, and to award a contract to whomever the City in its sole and absolute discretion deems appropriate and solely in the best interest of the City and no Tenderer will have any claim against the City as a consequence. Unless required otherwise, the City shall not, at any time, be required to disclose any information to the Tenderers regarding the City's consideration and evaluation of Bids.
- 10.5 Following acceptance by the City, a written Notice of Award will be issued to the successful Tenderer. If the Tenderer fails for any reason to execute and return the Articles of Agreement within seven (7) working days of receipt for signature of the Articles of Agreement from the City, or fails to provide the performance bond and labour and material bond or other security deposit stipulated in GC 11 or to satisfy such other terms and conditions specified hereunder within any period specified, or such extension of time as may be granted by the City, then the City reserves the right to terminate the Tenderer's right to complete the Contract and to award the Contract to whomever the City considers appropriate. The bid bond shall forthwith become payable.
- 10.6 The City shall not be obligated in any manner to the successful Tenderer whatsoever until the Contract has been awarded and the Contract has been duly executed by the parties.
- 10.7 If the City receives no Bids satisfactory to the City in its sole discretion, the City reserves the right in its sole discretion to negotiate a contract for the whole or any part of the Work with any one or more persons whatsoever, including any one or more of the Tenderers, or to postpone or cancel this Bid and then issue a new tender, or to cancel or postpone some or all of the Work.
- 10.8 The City shall not, under any circumstances, be responsible for any costs, expenses, loss, damage or liabilities, whether direct, indirect, consequential or economic in nature, incurred by a Tenderer as a result of, in connection with or incidental to:

- .i The tendering of the work;
- .ii Costs incurred for the preparation of this Bid;
- .iii The acceptance or rejection of any Bid; or
- .iv The exercise by the City of its rights under this RFT.

10.9 By participation in the tendering process, the Tenderer on its own behalf and on behalf of all firms, corporations and individuals comprising the Tenderer, agrees that none of the City or its directors, officers, employees, agents and other representatives shall be liable to any Tenderer, or any firm, corporation or individual comprising the Tenderer, including in contract, tort, statutory duty, duty of fairness, duty of care, law, equity or otherwise, for any claims, direct or indirect, whether for costs, expenses, losses or damages, or loss of anticipated profits, or for any matter whatsoever, incurred in preparing and submitting a Bid, or negotiations of a Contract, or in any way arising in connection with the Bid Documents. The Tenderer further agrees on its own behalf and on behalf of all firms, corporations and individuals comprising the Tenderer, that the award of the Contract is in the sole discretion of the City and in no event shall the Tenderer or any firms, corporations or individuals comprising the Tenderer seek injunctive or other relief to prevent or delay the award of the Contract or the performance of any Work or services in relation thereto.

11. UNBALANCED TENDERS

- 11.1 The Tenderer shall not submit an unbalanced Tender.
- 11.2 The City shall have the right to:
- .i Deem a Tender to be unbalanced; and
 - .ii Reject a Tender which may be, in its opinion, unbalanced.

12. COLLUSION

- 12.1 The Tenderer shall not engage in collusion of any sort and, in particular, shall:
- .i Ensure that no person or other legal entity, other than the Tenderer, has any undisclosed interest in the Tenderer's Tender; and
 - .ii Prepare its Tender without any knowledge of, comparison of figures with or arrangement with any other person or firm preparing a Tender for the same work.

13. RIGHT TO ACCEPT OR REJECT TENDERS

- 13.1 Notwithstanding any other provision in this Contract, the City shall have the right to:
- .i Accept any Tender;
 - .ii Reject any Tender; and
 - .iii Reject all Tenders.
- 13.2 Without limiting the generality of 13.1, the City shall have the right to:
- .i Accept an irregular Tender;
 - .ii Accept a Tender which is not the lowest Tender; and
 - .iii Reject a Tender even if it is the only Tender received by the City.
- 13.3 Acceptance of the Tender shall occur at the time the City awards the Tender and not necessarily at the time the award is communicated to the successful Tenderer.

14. CONTRACT DOCUMENTS

- 14.1 The Tenderer shall obtain and review all Contract Documents as listed in the Form of Tender and all Addenda issued by the City pertaining to this Contract.

15. COMMENCEMENT AND COMPLETION OF WORK

- 15.1 The Tenderer, in submitting the Bid, agrees that the Tenderer can complete the Work by the date for completion stated in the Tender Form.

16. OMISSIONS, DISCREPANCIES AND INTERPRETATIONS

- 16.1 Tenderers finding discrepancies or omissions in the drawings or terms of reference or having doubt as to the meaning or intent thereof, shall at once notify the Purchasing Coordinator who will, if necessary, send written instructions or explanations to all Tenderers.
- 16.2 Oral interpretations made to any Tenderer shall not affect a modification of any provision of the Tender Documents. Only addenda written and issued by the City can be considered.
- 16.3 The City reserves the right in its sole discretion at any time, and for whatever reason to, by Addendum, modify, amend or otherwise change the Tender Documents. Any such Addendum shall be issued in writing and shall be expressly identified as an Addendum to these Tender Documents. All such changes shall become part of the Tender Documents and their effects shall be

reflected in the Tender prices. The City also reserves the right in its sole discretion to cancel this Tender at any time.

17. IRREVOCABILITY OF OFFER

- 17.1 The Tenderer shall not revoke its offer until after the expiration of sixty (60) business days after the opening of Tenders by the City.
- 17.2 If the Tenderer revokes its offer prior to the expiration of sixty (60) business days after the Tender opening, the Tenderer shall forfeit its Tender security deposit, but this shall not prohibit the City from pursuing and other legal remedy which it may have.

18. ALTERNATIVES & EQUALS

- 18.1 Where requested in this RFT, Tenderers may propose alternatives or equals to the stated scope of work. In case alternate or equals are requested in this RFT, the following will apply:
 - .i Where the Tender Documents stipulate a particular product, alternatives or equals will be considered by the City up to ten (10) calendar days prior to the Closing Time.
 - .ii When a request to substitute an allegedly equal product is made to the City, the City may approve the substitution either as an equal or as an alternative and will issue an Addendum to all Tenderers. If a product is approved as equal, all Tenderers may use that product in place of the specified product. If the product is approved as an alternative, Tenderers shall base their prices upon the specified product and shall indicate in the Bid the change in price which will apply if use of the alternative product is allowed.
 - .iii In their submission of alternatives to products specified, Tenderers shall include and allow for any changes required in the Work to accommodate such alternative products. A later claim by the Contractor for an addition to the Contract Price because of changes in the Work necessitated by use of alternative products shall not be considered.
 - .iv Where selected products are stipulated in the Tender Documents the Bid shall be based on the use of only these selected products.
 - .v Bids with alternative products will not be considered, unless the alternative has been approved by the City and communicated to the Bidders through an Addendum as noted in 18.1(ii). Bids with alternatives that have not been approved by the City will be deemed non-compliant.
 - .vi Submissions shall provide sufficient information to enable the City to determine the acceptability of such products.

- .vii Provide complete information on required revisions to other work and products to accommodate each alternative product, and the amount of addition or reduction from Tender prices, including required revisions, for each alternative product.
- .viii Unless a bid for an alternative product is submitted in this manner and later accepted, provide the product specified.

19. PUBLIC OPENING

- 19.1 A public opening of bids will be completed for this competition.
- 19.2 The public opening of bids will occur immediately following the closing time stipulated in section 27.4.
- 19.3 A public opening will be conducted virtually via zoom/conference call. The call-in details will be provided via addendum.

20. TENDER SIGNING

- 20.1 The Bid must be executed under seal by the Tenderer.
- 20.2 If the Tenderer is an individual or a partnership, the Bid shall be executed by the individual or a partner in the presence of a witness and the signatory must show the capacity in which he or she signs (e.g.: “Partner” or “Proprietor”).
- 20.3 If the Tenderer is a corporation, the Bid shall be executed under the seal of the company, affixed in the presence of the authorized officers or two directors.
- 20.4 If the Tenderer is a joint venture, each party to the joint venture shall execute the Bid under seal in the manner appropriate to such party.

21. APPENDICES TO FORM OF TENDER

- 21.1 Tenderers shall complete all Appendices attached to the Form of Tender and submit these with the Tender.

22. PROVISIONAL ITEMS

- 22.1 Provisional items shall mean items for which only very approximate quantities have been included in the tender documents. No work for which "Provisional" items are allowed shall be commenced without written instructions from the City.
- 22.2 Once a Tenderer has been chosen by the City for the Project, it shall be open to the City to accept, reject or negotiate the Tenderer's bid for any provisional item contained in the Bid. Should the City choose to reject the successful Tenderer's bid for such provisional work, it shall be open to the City to call for new Bids for this work and the successful Tenderer for the Project may submit a Bid if he so chooses.

23. SUCCESSFUL TENDERER – BONDS

23.1 The successful Tenderer and its surety shall provide:

- .i A performance bond signed and sealed by the Tenderer's surety; and
- .ii A labour and material payment bond signed and sealed by the Tenderer's surety;

Each in the amount of at least fifty percent (50%) of the total Tender price. The cost of Bonds shall be included in the Tender price.

23.2 The surety of the successful Tenderer and the bonds referred to in 23.1 must be originals and shall be to the satisfaction of the City.

24. SUCCESSFUL TENDERER – WORKERS' SAFETY AND COMPENSATION COMMISSION CERTIFICATE OF CLEARANCE

24.1 The successful Tenderer shall provide the City with a valid Workers' Safety and Compensation Commission Certificate of Clearance to the satisfaction of the City.

25. SUCCESSFUL TENDERER – EXECUTION OF ARTICLES OF AGREEMENT

25.1 The successful Tenderer shall execute in accordance with Section 1, in triplicate, the Articles of Agreement provided in the Contract Documents.

25.2 The successful Tenderer shall forward the executed Articles of Agreement to the City.

26. SUCCESSFUL TENDERER – INSURANCE

26.1 The successful Tenderer shall provide the City with an original Certificate of Insurance for each type of insurance coverage required by GC12.3 and any additional coverage specified in the Supplementary Conditions.

26.2 The Contractor shall carry insurance in the amount of at least **\$2,000,000**.

26.3 The Contractor shall carry insurance, which names the following as additional insureds:

	Address
<u>City of Iqaluit</u>	<u>901 Nunavut Drive, P.O. Box 460, Iqaluit, NU, X0A 0H0</u>
<u>Colliers Project Leaders</u>	<u>2720 Iris Street, Ottawa, ON, K2C 1E6</u>

Concentric Associates
International Inc.

2327 St. Laurent Blvd, Unit 100
Ottawa, Ontario, K1G 4J8

27. SUCCESSFUL TENDERER – TIME FOR COMPLETION

- 27.1 The successful Tenderer shall Substantially Perform the work by the specified substantial performance date and this shall be the first date for the calculation of Liquidated Damages per Section 28.
- 27.2 The successful Tenderer shall Complete the Work by the specified completion date and this shall be the second date used for the calculation of Liquidated Damages as per Section 28.
- 27.3 The successful Tenderer acknowledges that time shall be deemed to be of the essence of the Contract. For the Tenderer's purpose of establishing a scheduled for the Work, it is anticipated that the Contract Award will be complete 30 calendar days after the opening of Tenders by the City, and then the Commence Work Order will be issued 3 business days after the Contract Award is complete. Milestone dates associated with the Contract will be adjusted, when possible, due to any delays caused by the City during the Contract Award and/or issuance of the Commence Work Order.
- 27.4 The Contract general timelines have been identified below.

ACTION	DATE
Opening Date for RFT	May 9, 2022
Deadline for Submitting Inquiries	May 16, 2022, at 3 PM
Deadline for Inquiry Response	May 18, 2022
Closing Date for RFT	May 23, 2022, at 3 PM
Public Opening	TBD
Approvals	June 20, 2022
Contract Award Date	June 27, 2022
Project Kick-Off	July 5, 2022
Substantial Performance	August 31, 2022
Warranty Start Date	August 31, 2022
Warranty End Date	August 31, 2023
Completion	August 31, 2023

28. SUCCESSFUL TENDERER – LIQUIDATED DAMAGES

28.1 Liquidated damages shall be in the amount of:

FIVE HUNDRED DOLLARS (\$500) per calendar day beyond the Substantial and Completion Dates, as determined in Section 27.

29. SUCCESSFUL TENDERER – SUBMISSION OF DOCUMENTATION

29.1 The successful Tenderer shall submit the documentation required in 1.1.10 within five (5) business days of the day the City notifies the successful Tenderer that the documentation should be sent to the City.

29.2 If the successful Tenderer fails to comply with 29.1 the City may, in its sole discretion, withdraw its acceptance of the Tender and the Tenderer shall have no recourse whatsoever against the City.

30. SUCCESSFUL TENDERER – COMMENCEMENT OF THE WORK

30.1 The successful Tenderer shall not commence the Work until it has received a Commence Work Order issued by the City.

31. COVID-19 MITIGATION MEASURES (CMM)

31.1 Definitions:

- .i COVID-19 Mitigation Measures (CMM) means measures required to be in compliance with the CMM Guidelines.
- .ii “CMM Guidelines” means all guidelines and regulations published by the Government of Nunavut Department of Health and the Canadian Construction Association *COVID-19 Standardized Protocols for All Canadian Construction Sites, Version 4, April 16, 2020* regarding measures to mitigate COVID-19.
- .iii “COVID-19 Change” means any change in the work caused by or attributable to changes in CMM or changes made to applicable laws, ordinances, rules, regulations, or codes of authorities having jurisdiction that pertain to the control of COVID-19 that come into force after the time of Bid Closing.

31.2 Instructions to Bidders:

- .i If, in the Owner’s sole opinion, substantial changes to the CMM Guidelines occur within five (5) business days of the Tender Closing, the Owner may adjust the Tender Closing as the Owner deems appropriate to allow for adjustment for these changes.
- .ii By submitting a Bid, the Contractor acknowledges its willingness and ability to execute the Work under the CMM in force as of the Bid Closing.

- .iii The Bidder shall ensure that all of its subcontractors are aware of the CMM and the CMM Guidelines.
- .iv The Bid is to assume that the CMM as of the date of Bid Closing are to be in effect up to and including the completion date, following which the additional scope of work required to meet the Canadian Construction Association COVID-19, *Standardized Protocols for All Canadian Construction Sites, Version 4, April 16, 2020* should be assumed to be substantially eliminated.
- .v The incremental cost of any COVID-19 Change will be addressed as a Claim for Change in Contract Price.
- .vi Notwithstanding the foregoing, the Bidder acknowledges its obligation to adhere to the CMM Guidelines and any subsequent revision as part of its responsibility for health and safety on the Work Site.

31.3 Site-Specific Health and Safety Plan

- .i The Site-Specific Health and Safety Plan, as defined in Section K of the General Requirements (PART VI), is to specifically define CMM, a COVID Safety Plan, and is to comply with CMM Guidelines. The Site-Specific Health and Safety Plan is to be updated promptly after the CMM Guidelines are updated.
- .ii The Site-Specific Health and Safety Plan must consider best practices and requirements for construction sites, as provided by the Government of Nunavut (GN) and the Workers Safety and Compensation Commission (WSCC).

31.4 Site Shutdown Plan

- .i “Site Shutdown Plan” means a plan outlining the shutdown procedures for the project in the event of a shutdown directive from the City or governing authority relating to COVID-19.
- .ii The Site Shutdown Plan” shall address items such as how the site will be made safe, how any materials or equipment will be stored or removed, plans regarding any portion or work that requires ongoing monitoring and how the site will be kept secure. Associated timelines required for execution of the plan are to be identified. These procedures are to be updated as required as the project progresses.

31.5 Schedule Impact

- .i If the Contractor is delayed in completion of the Work by Force Majeure or by changes to the CMM, then the time of completion shall be extended by the Town for a period of time equal to the time lost due to such delays. Force Majeure is defined as labour disputes, strikes, lockouts, fire,

unusual delay by common carriers or unavoidable casualties, or such other cause beyond the reasonable control of the Contractor. The Contractor's lack of funds is not a cause beyond the Contractor's control. For clarity, any issues or delays in any way arising from or related to COVID-19 (or any similar or related disease), except for delays as a result of changes to the CMM, are expressly excluded and do not fall under the definition of Force Majeure. The Contractor agrees that the scheduling requirements of the Contract are reasonable in light of any issues that may arise from COVID-19's impact on the Work and the Project, and that the Contractor may not rely on COVID19 (or any similar or related disease) in any manner as a Reason or cause for delay except for delays as a result of changes to the CMM.

- .ii Notwithstanding the foregoing, no extension shall be made for delay unless the Contractor provides to the City written notice within five (5) Working Days of the commencement of the Force Majeure or commencement of the changes to the CMM.

31.6 Cost Impact

- .i In the case of a shut-down or suspension of the Work resulting from changes to the CMM Guidelines, the Contractor shall provide the City the value of any change in the Contract Price and/or Contract Time.
- .ii In the case of a shut-down or suspension of the Work resulting from changes to the CMM Guidelines, the Contractor is to provide, not less than monthly, and more frequently if requested, an accounting of actual incremental costs incurred for any Work required to maintain the Work Site in a safe and secure state.
- .iii Any adjustments to the Contract Amount associated with re-starting the Work is to be quantified within thirty (30) calendar days of such time that authorization to re-commence the Work has been provided.
- .iv When the change to the Work is caused by changes to the CMM Guidelines the City will pay net actual costs only. No allowance for mark-up, contributions to overhead, profit, or stand-by charges will be considered. Labour rates shall include only the actual wage paid to the employee, plus the payroll burden. The Contractor will mitigate cost and time impact to the Contract Amount and the Work Schedule. The Contractor is to provide detailed supporting documentation to substantiate reasonable incurred impact to the Contract Amount and the Work Schedule.
- .v No consideration will be given to adjustment of the Contract Amount or Work Schedule where the impact to the Contract Amount or Work Schedule is as a result of the Contractor's failure to comply with the CMM Guidelines.



CONSTRUCTION SERVICES
PART I – PROCUREMENT AND CONTRACT REQUIREMENTS



END OF SECTION



CONSTRUCTION SERVICES
PART I – PROCUREMENT AND CONTRACT REQUIREMENTS



SECTION C – FORM OF TENDER

Date: _____

Submitted By: Name: _____

Address: _____

Telephone: _____

To: **City of Iqaluit
City Hall
Iqaluit, Nunavut**

Project: **Project Title: Lake Geraldine Dam Civil Improvements**

The undersigned Tenderer, having carefully examined the Tender Documents and the Site, and having full knowledge of the Work and of the materials and products to be furnished and used, hereby agrees to provide all necessary materials, products, supervision, labour and equipment and perform and complete all Work and fulfill everything for the stipulated lump sum price of:

(Total in Words)

Dollars

\$

in Canadian funds, which price includes all specified cash and contingency allowances and the applicable taxes in force at this date excluding GST.

We have included herewith the security deposit and Consent of Surety as required by the Instructions to Tenderers.

The undersigned also agrees:

1. That the provisions of the Instruction to Tenderers apply, including without limitation provisions that provide that City is in no way obligated to accept this Bid, the City may at its sole discretion to accept any Tender or part thereof or waive any defect, irregularity, mistake or insufficiency and accept any Tender or alternative bid, in whole or in part, which is deemed by the City to be most favourable to its interest, and that limit the City's liability.
2. That the estimate of quantities shown in Tender Documents serves only to provide a basis for comparing Bids and that no representations have been made by either the City or their Agent that the actual quantities correspond therewith, and further, that the City has the

right to increase or decrease the quantities in any or all items and to eliminate items entirely from the Work.

3. That this Bid is made without knowledge of the Bid prices to be submitted for the Work by any other company, firm or person.
4. That this Bid is made without connection or arrangement with any company, firm or person submitting a bid for the Work.
5. That this Bid is made without any undisclosed connection or arrangement with any other company, firm, or person having an interest in this Bid or in the proposed contract.
6. That this Bid is irrevocable for sixty (60) business days after the Closing Time and that the City may at any time within such period accept this Bid whether any other contract has previously been awarded or not and whether acceptance of another Bid has been given or not.
7. If this Bid is accepted by the City, to execute the Articles of Agreement and to present to the City the required security (by way of bonds or a security deposit) as stated in the General Conditions within seven (7) calendar days after the date of Notice of Award.
8. If this Bid is accepted within the time stated herein, and we fail to execute the Articles of Agreement and provide the required Bonds or security deposit, or we request to withdraw, the security deposit provided with the Bid shall be forfeited as damages to the City by reason of our failure, limited in amount to the lesser of the face value of the deposit or the difference between this Bid and the price the Contract is signed.
9. In the event our Bid is NOT accepted within the time stated herein the required security deposit shall be returned to the undersigned in accordance with the provisions in the Instructions to Bidders, unless a mutually satisfactory arrangement is made for its retention and validity for an extended period of time.
10. That payment for the Work done will be made on the basis of the quantities measured by the City or its Agent and at the Bid prices shown in the Tender Form which shall be compensation in full for the Work done under the terms of the Contract.
11. That payment of the contingency allowance or portion thereof will only be made in the event that the City or its Agent authorizes work, in which case the amount of payment will be determined as specified in the General Conditions. Any unused portion thereof will be retained by the City.
12. To commence and proceed actively with the Work on Site within seven (7) business days of the date of the execution of the contract, and to substantially perform the Work by the specified substantial completion date, subject to the provisions of Section 6 of the General Conditions for extension of the Contract Time.



CONSTRUCTION SERVICES
PART I – PROCUREMENT AND CONTRACT REQUIREMENTS



13. That should the undersigned fail to complete the Work in the time specified above, he shall compensate the City of Iqaluit in accordance with GC 6 of the General Conditions.
14. That the undersigned has carefully examined the Work described herein, has become familiar with local conditions and the character and extent of the Work, has carefully examined every part of the proposed contract and thoroughly understands its terms and conditions, has determined the source of supply and transport of the materials required, has investigated labour conditions and has arranged for the continuous performance of the Work described in the Tender Documents.
15. **Appendices:**
- 16.1 Appendix A – Consent of Surety
 - 16.2 Appendix B – Cost Submission Form
 - 16.3 Appendix C – List of Subcontractors
 - 16.4 Appendix D – List of Equipment
 - 16.5 Appendix E – List of Product Suppliers
 - 16.6 Appendix F – Labour and Equipment Rates
16. **Addenda**
- 17.1 The following Addenda have been received. The modifications to the Tender Documents noted therein have been considered and the effects are included in the Tender prices.

Addendum #:		Date:	
Addendum #:		Date:	
Addendum #:		Date:	
Addendum #:		Date:	
Addendum #:		Date:	
Addendum #:		Date:	
Addendum #:		Date:	

This Tender is executed under seal at _____ this _____ day of _____ 2022.

Name of Firm: _____

Address: _____



CONSTRUCTION SERVICES
PART I – PROCUREMENT AND CONTRACT REQUIREMENTS



FOR INDIVIDUAL OR PARTNERSHIP:

SIGNED, SEALED AND DELIVERED by:

(Tenderer – Please Print) _____ (Seal)
(Signature of Tenderer)

In the presence of:

(Witness – Signature)

Name: _____

Address: _____

Occupation: _____

FOR LIMITED COMPANY:

The Corporate Seal of:

(Tenderer – Please Print) _____ (Seal)

Was hereunto affixed in the presence of:

Authorized Signing Officer and Title

Authorized Signing Officer and Title

Note: If the Tender is by a joint venture, add additional forms of execution for each member of the joint venture in the appropriate form or forms as above.

END OF SECTION



CONSTRUCTION SERVICES
PART I – PROCUREMENT AND CONTRACT REQUIREMENTS



APPENDIX A – CONSENT OF SURETY

Herewith is the Consent of Surety of the Tender submitted.

By: _____

To: The City of Iqaluit

Dated: _____ 2022 and which is an integral part of the Tender

CONSENT OF SURETY COMPANY

Should it be required, the undersigned Surety Company hereby consents and agrees with the City to become bound as Surety in all performance bonds and labour and material payment bonds required by the Tender Documents, all for the fulfillment of the Contract for the Work covered by the annexed Tender, which may be awarded to:

(Name of Tenderer)

(Address)

At prices set forth in the attached Tender. The said Surety is legally entitled to do business in Nunavut.

The Corporate Seal of:

(Surety – Please Print)

Was hereunto affixed in the presence of:

(Authorized Signing Officer) Title

(Authorized Signing Officer) Title

END OF SECTION



CONSTRUCTION SERVICES
PART I – PROCUREMENT AND CONTRACT REQUIREMENTS



Sub-Total: \$ _____

GST: \$ _____

TOTAL: \$ _____

END OF SECTION



CONSTRUCTION SERVICES
PART I – PROCUREMENT AND CONTRACT REQUIREMENTS



APPENDIX C – LIST OF SUBCONTRACTORS

Re: Bid for Lake Geraldine Dam Civil Improvements

1. This List of Subcontractors Form is acknowledged and agreed to form an integral part of the Bid for:

Lake Geraldine Dam Civil Improvements

2. The Subcontractors listed below will remain unchanged and will be used to perform the work of the trade section indicated, unless the Owner gives written permission to change one or more of the Subcontractors. Where subcontractors are not intended to be used for the work of the trade section indicated, the term “By Own Forces” is inserted.
3. Each Subcontractor listed below has been consulted and is fully acquainted with the extent and nature of the Work, the contract conditions and requirements, the proposed construction schedule, and has agreed to execute the Work in accordance with the terms of the Contract and for the Bid Price amount shown.

TRADE SECTION

SUBCONTRACTOR COMPANY NAME

Add rows if required.

END OF SECTION



CONSTRUCTION SERVICES
PART I – PROCUREMENT AND CONTRACT REQUIREMENTS



APPENDIX D – LIST OF EQUIPMENT

Re: Bid for Lake Geraldine Dam Civil Improvements

1. This List of Equipment Form is acknowledged and agreed to form an integral part of the Bid for:

Lake Geraldine Dam Civil Improvements

EQUIPMENT	SIZE	MAKE	MODEL

Add rows if required.

END OF SECTION



1. This List of Product Suppliers Form is acknowledged and agreed to form an integral part of the Bid for:

[illegible]

END OF SECTION



1. This List of Product Suppliers Form is acknowledged and agreed to form an integral part of the Bid for:

2. The rates listed below will remain unchanged and will be used to measure payment for additional work, not include in the Contract Documents.

[illegible]

Add rows if required.

EQUIPMENT	RATE



Add rows if required.

END OF SECTION



CONSTRUCTION SERVICES
PART I – PROCUREMENT AND CONTRACT REQUIREMENTS



SECTION D – ARTICLES OF AGREEMENT

THIS AGREEMENT MADE IN DUPLICATE THIS _____ DAY OF _____ 2022

BETWEEN:

THE CITY OF IQALUIT

(“the City”)

-and-

(“the Contractor”)

ARTICLES OF AGREEMENT

IN CONSIDERATION of the mutual promises and obligations contained in the Contract Documents, the City and the Contractor agree as follows:

A1. CONTRACT DOCUMENTS

1.1 The documents forming the Contract between the City and the Contractor, referred to herein as the Contract Documents shall consist of:

- a) these Articles of Agreement;
- b) the document attached hereto entitled “General Conditions”;
- c) the document attached hereto entitled “Supplementary General Conditions”;
- d) the documents attached hereto entitled “Plans and Specifications”;
- e) the documents attached hereto entitled “Tender Documents”; and
- f) any amendment or variation of the Contract Documents that is made in accordance with the General Conditions.

1.2 The City will designate a representative for the purposes of the Contract.

1.3 In the Contract:

- a) “Fixed Price Arrangement” means that part of the Contract that prescribes a lump sum as payment for performance of the Work to which it relates; and
- b) “Unit Price Arrangement” means that part of the Contract that prescribes the product of a price multiplied by a number of units of measurement of a class as payment for performance of the Work to which it relates.

- 1.4 Any of the provisions of the Contract that are expressly stipulated to be applicable only to a Unit Price Arrangement are not applicable to any part of the Work to which a Fixed Price Arrangement is applicable.
- 1.5 Any of the provisions of the Contract that are expressly stipulated to be applicable only to a Fixed Price Arrangement are not applicable to any part of the Work to which a Unit Price Arrangement is applicable.

A.2 DATE OF COMPLETION OF WORK AND DESCRIPTION OF WORK

- 2.1 The Contractor shall between the date of these Articles of Agreements and the specified completion date in a careful and workmanlike manner, diligently perform and complete the following Work:

Complete repairs on the concrete dam, install monitoring stations for sensor data, and install survey monuments.

For details on the complete scope of work, the Contractor shall refer to the detailed design drawings and specifications provided within the tender package.

A.3 CONTRACT PRICE

- 3.1 Subject to any increase, decrease, deduction or set-off that may be made under the Contract, the City shall pay the Contractor at the times and in the manner set out or referred to in the General Conditions.
 - 3.1.1 the sum of \$ _____ in consideration for the performance of the Work or the part thereof that is subject to a Fixed Price Arrangement, excluding goods and services tax (GST); and
 - 3.1.2 a sum that is equal to the aggregate of the products of the number of units of measurement of each class of labour, plant and material, as certified by the Engineer, multiplied in each case by the appropriate unit price that is set out in the Unit Price Table in consideration for the performance of the Work or the part thereof that is subject to a Unit Price Arrangement, excluding goods and services tax (GST).
- 3.2 For the information and guidance of the Contractor and the persons administering the Contract on behalf of the City, but not so as to constitute a warranty, representation or undertaking of any nature by either party, it is estimated that the total amount payable by the City to the Contractor for the part of the Work to which a Unit Price Arrangement is applicable will not exceed _____, GST excluded.
- 3.3 A3.1.1 is applicable only to a Fixed Price Arrangement.
- 3.4 A3.1.2 and A3.2 are applicable only to a Unit Price Arrangement.
- 3.5 The Contract Price shall exclude Goods and Services Tax.



CONSTRUCTION SERVICES
PART I – PROCUREMENT AND CONTRACT REQUIREMENTS



A.4 ADDRESSES

4.1 For all purposes of the Contract, the Contractor's address shall be deemed to be:

4.2 For all purposes of the Contract, the City's address shall be deemed to be:

City of Iqaluit
P.O. Box 460
Iqaluit, Nunavut, X0A 0H0

SIGNED, SEALED AND DELIVERED in the presences of:

CONTRACTOR:

Per:

Signature

Witness

Name

Date

Position

Per:

Signature

Witness

Name

Date

Position

MUNICIPAL CORPORATION OF THE CITY OF IQALUIT

Per:

Mayor

Date

Per:

Chief Administrative Officer

Date



CONSTRUCTION SERVICES
PART I – PROCUREMENT AND CONTRACT REQUIREMENTS



END OF SECTION



CONSTRUCTION SERVICES
PART II – SERVICE AGREEMENT



CITY OF IQALUIT SERVICES AGREEMENT

BETWEEN: THE MUNICIPAL CORPORATION OF THE CITY OF IQALUIT
(hereinafter referred to as the "CITY OF IQALUIT")

OF THE FIRST PART

AND: . **<CONTRACTOR NAME>**
(hereinafter referred to as the "Contractor")

OF THE SECOND PART

WHEREAS the CITY OF IQALUIT has requested the Contractor to provide **<description of services>**;

AND WHEREAS the Contractor has agreed to provide such services to the CITY OF IQALUIT in its bid dated **<Bid Submission Date>**;

AND WHEREAS the CITY OF IQALUIT and the Contractor wish to set out the terms and conditions relating to the provision of such services;

THEREFORE the CITY OF IQALUIT and the Contractor agree as follows:

1. SERVICES AND PAYMENT

1.1 The Contractor agrees to provide to the CITY OF IQALUIT those services set out in the job description and scope of work provided on **<RFT Date>**. A copy of the bid is attached as Appendix "A".

1.2 The CITY OF IQALUIT agrees to pay for the services described above, a total amount not greater than **<Bid Value>**, for the provision of professional services based on the Bid dated **<Bid Submission Date>**.

2. TERM

2.1. This Contract shall commence on the **<Contract Commence Date>** and terminates on the **<Contract Termination Date>** unless otherwise terminated in accordance with the provisions of this Contract.

3. NOTICE AND ADDRESS

3.1 Any notice required to be given herein or any other communication required by this contract shall be in writing and shall be personally delivered, sent by facsimile, or posted by prepaid registered mail and shall be addressed as follows:

i) The CITY OF IQALUIT:

Amy Elgersma
Chief Administrative Officer
City of Iqaluit
P.O. Box 460
Iqaluit, NU
X0A 0H0
Fax: 979-5922

Reference: Lake Geraldine Dam Civil Improvements, 2022-RFT-028



CONSTRUCTION SERVICES PART II – SERVICE AGREEMENT



ii) If to the Contractor at:

<Contractor Representative – Name>

<Contractor Organization Name>

<Contractor Address>

- 3.2 Every such notice and communication, if delivered by hand, shall be deemed to have been received on the date of delivery or if sent by prepaid registered mail shall be deemed to have been received on the seventh day after posting, or if by facsimile, 48 hours after the time of transmission, excluding from the calculation weekends and statutory holidays.

4. COMPLETE AGREEMENT

- 4.1 This Contract and its attachments constitute the complete Contract between the parties. Except as provided herein, it supersedes and shall take effect in substitution for all previous agreements. It is subject to change only by an instrument executed in writing by the City.
- 4.2 If this Contract arises from a request for proposals or tender call, the provisions of the request for proposals or tender call and the Contractor's bid or proposal submission are incorporated into this Contract and may be used to clarify, explain or supplement this Contract, but shall not be used to contradict any express terms of this Contract.
- 4.3 In the event of a conflict between this Contract, the Contractor's bid or proposal submission, and the City's original tender bid instructions or Request for Proposals, the more recently prepared document shall govern to the extent of such inconsistency.

5. GENERAL TERMS

- 5.1 Any information obtained from or concerning any department of the CITY OF IQALUIT or clients of any department of the CITY OF IQALUIT, by the contractor, its agents or employees in the performance of any contract shall be confidential. The Contractor shall take such steps as are necessary to ensure that any such information is not disclosed to any other person and shall maintain confidential and secure all material and information that is the property of the CITY OF IQALUIT and in the possession of or under the control of the Contractor. This clause survives the termination of this contract.
- 5.2 Time shall in every respect be of the essence. The Contractor shall deliver the services specified in the contract and according to the project schedule on costs. The CITY OF IQALUIT may grant reasonable extensions to the Contractor for delays, if the Contractor can show those delays were caused by circumstances beyond the control of the Contractor.
- 5.3 The Contractor is an independent Contractor with the CITY OF IQALUIT and nothing in this contract shall be construed or deemed to create the relationship of employee and employer or of principal and agent between the CITY OF IQALUIT and the Contractor. The Contractor is solely responsible for payments of all statutory deductions or contributions including but not limited to pension plans, unemployment insurance, income tax, workers' compensation and the Nunavut Payroll Tax.
- 5.4 This contract shall be interpreted and governed in accordance with the laws of Nunavut and the laws of Canada as they apply in Nunavut.
- 5.5 No waiver by either party of any breach of any term, condition or covenant of this contract shall be effective unless the waiver is in writing and signed by both parties. A waiver, with respect to a specific breach, shall not affect any rights of the parties relating to other or future breaches.
- 5.6 The failure of either party at any time to require the performance of any provision or requirement of this contract shall not affect the right of that party to require the subsequent performance of that provision or requirement.



CONSTRUCTION SERVICES PART II – SERVICE AGREEMENT



- 5.7 Title to any report, drawing, photograph, plan, specification, model, prototype, pattern, sample, design, logo, technical information, invention, method or process and all other property, work or materials which are produced by the Contractor in performing the contract or conceived, developed or first actually reduced to practice in performing the contract (herein called "the Property") shall vest in the CITY OF IQALUIT and the Contractor hereby absolutely assigns to the CITY OF IQALUIT the copyright in the property for the whole of the term of the copyright. The Contractor shall not be responsible for any loss or damage suffered by the City of Iqaluit or any third parties resulting from any unauthorized use or modification of the property, errors in transmission of the property, changes to the Property by others, the consequences of design defects due to the design of others, or defects in contract documents prepared by others, and the City of Iqaluit agrees to defend, indemnify, and hold the Contractor harmless from and against all claims, demands, losses, damages, liability and costs associated therewith. Subject to the foregoing, the Property may be relied by the City of Iqaluit for design and construction work undertaken by other parties with respect to the Services provided that such parties verify the accuracy and completeness of the Property to their satisfaction.
- 5.8 It is intended that all provisions of this agreement shall be fully binding and effective between the parties, but in the event that any particular provision or provisions or a part of one is found to be void, voidable or unenforceable for any reason whatever, then the remainder of the agreement shall be interpreted as if such provision, provisions, or part thereof, had not been included.
- 5.9 This contract may be extended by the written consent of the parties.
- 5.10 The CITY OF IQALUIT may delegate any of its authority and undertaking pursuant to this contract to any employee or contractor the CITY OF IQALUIT by notice in writing to the Contractor.
- 5.11 This contract shall enure to the benefit of and be binding on the respective administrators, successors and assignment of each of the parties hereto.
6. CONTRACTOR RESPONSIBILITIES
- 6.1 The Contractor shall indemnify and hold harmless, the CITY OF IQALUIT, its officers, employees, servants and agents from and against all claims, actions, causes of action, demands, losses, costs, damages, expenses, suits or other proceedings by whomsoever made, brought or prosecuted in any manner based upon or related to the negligent acts, errors, or omissions of the Contractor under this contract.
- 6.2 The Contractor shall be liable to the CITY OF IQALUIT for any loss or damage to property or equipment that is supplied to or placed in the care, custody or control of the Contractor for use in connection with the contract if such loss or damage is attributable to the negligence or deliberate acts of the Contractor or its employees or agents.
- 6.3 If, in the opinion of the CITY OF IQALUIT acting reasonably, the Contractor is in default in respect of any obligation of the Contractor hereunder, the CITY OF IQALUIT may rectify such default and pursue a claim against the Contractor for any direct costs associated with any such remediation, including a reasonable allowance for the use of the CITY OF IQALUIT's own employees or equipment.
- 6.4 The Contractor may not assign or delegate work to be done under this contract, or any part thereof, to any other party without the written consent of the CITY OF IQALUIT. In the case of a proposed assignment of monies owing to the Contractor under this contract, the consent in writing of the CITY OF IQALUIT must be obtained.
- 6.5 The Contractor shall keep proper accounts and records of the services for a period of 3 years after the expiry or termination of this agreement. At any time during the term of this contract or during the three years following the completion or termination of this agreement, the Contractor shall produce copies of such accounts and records upon the written request of the CITY OF IQALUIT.
- 6.6 The Contractor shall notify the CITY OF IQALUIT immediately of any claim, action, or other proceeding made, brought, prosecuted or threatened in writing to be brought or prosecuted that is based upon,



CONSTRUCTION SERVICES PART II – SERVICE AGREEMENT



occasioned by or in any way attributable to the performance or non-performance of the services under this contract.

- 6.7 If at any time the Contractor considers their estimates indicate costs will exceed the project budget they will immediately advise the City of Iqaluit. If in the opinion of the City of Iqaluit, acting reasonably, the excess is due to design, costs factors or matters under the control or reasonably foreseeable by the Contractor, the CITY OF IQALUIT may require the Contractor to do everything by way of revision of the design to bring the cost estimate within the project budget. Costs of completing such revisions shall be based upon a level of compensation reasonably appropriate to the circumstances, including the reason for the revisions.
- 6.8 Except as required in the performance of services set out in this agreement, the Contractor must maintain as confidential all data and information made available to the Contractor, the CITY OF IQALUIT, or any other parties which is generated by or results from the Contractor's performance of the Services described in this Contract. All such data and information is the property of the City of Iqaluit. This clause shall survive the termination of the Contract.

7. TERMINATION

- 7.1 The CITY OF IQALUIT may terminate this contract at any time upon giving written notice to this effect to the Contractor if, in the opinion of the CITY OF IQALUIT, the Contractor is unable to deliver the service as required, the Contractor's performance of work is persistently faulty, in the event that the Contractor becomes insolvent or commits an act of bankruptcy, in the event that any actual or potential labor dispute delays or threatens to delay timely performance of the contract or the (Contractor's Sub-Contractor) defaults or fails to observe the terms and conditions of the contract in any material respect.
- 7.2 This contract shall terminate as of the day for termination set out in the written notice and the Contractor shall forthwith invoice the CITY OF IQALUIT for work performed to the date of termination.
- 7.3 Any invoice submitted by the Contractor pursuant to clause 7.2 shall be reviewed by the CITY OF IQALUIT to assess the amount which is properly due and owing for work done by the Contractor prior to termination.

8. FINANCIAL

- 8.1 The CITY OF IQALUIT, having given written notice of a breach, may withhold or hold back in whole or in part any payment due the Contractor without penalty, expense or liability, if in the opinion of the Contracting Authority, the Contractor has failed to comply with or has in any way breached an obligation of the Contractor. Any such hold back shall continue until the breach has been rectified to the satisfaction of the CITY OF IQALUIT.
- 8.2 The CITY OF IQALUIT may set off any payment due the Contractor against any monies owed by the Contractor to the CITY OF IQALUIT.
- 8.3 The City of Iqaluit will pay the Goods and Services Tax (GST).
- 8.4 Provided all terms and conditions on the part of the Contractor have been complied with, each invoice will be paid thirty (30) calendar days after receipt of the invoice, or thirty (30) calendar days after delivery of the services, whichever is later. Invoices from Nunavut Contractors (as defined by the CITY OF IQALUIT NNI Policy) will be paid twenty (20) calendar days after receipt of the invoice, or twenty (20) calendar days after receipt of the services, whichever is later.
- 8.5 The CITY OF IQALUIT may, in order to discharge lawful obligations or to satisfy lawful claims against the Contractor or a Sub-Contractor arising out of the execution of work, pay any amount, which is due and payable to the Contractor under the contract, if any, directly to the obligee of and the claimants against the Contractor or Sub-Contractor.



CONSTRUCTION SERVICES PART II – SERVICE AGREEMENT



9. INSURANCE AND LIABILITY

- 9.1 The Contractor's liability to the City of Iqaluit for claims arising out of this Agreement, or in any way relating to the Services, will be limited to direct damages and to the re-performance, without additional compensation, of any Services not meeting a normal professional standard of care and such liability will, in the aggregate, not exceed the amount of \$1,000,000.00. The limitations of liability will apply, to the extent permitted by law, whether Contractor's liability arises under breach of contract or warranty; tort, including negligence; strict liability; statutory liability; or any other cause of action, and will extend to and include Contractor's directors, officers, employees, insurers, agents and sub-contractor.
- 9.2 In no event will either party be liable to the other party for indirect or consequential damages including without limitation loss of use or production, loss of profits or business interruption.
- 9.3 The Contractor shall, without limiting his obligations or liabilities hereto, obtain, maintain and pay for during the period of this agreement, the following insurance with limits not less than those shown:
- a) Workers' Compensation insurance covering all employees engaged in the work in accordance with the statutory requirements of the Territory or Province having jurisdiction over such employees. If the Contractor is assessed any additional levy, extra assessment or super-assessment by a Workers' Compensation Board as a result of an accident causing injury or death to an employee of the Contractor or any sub-contractor, or due to unsafe working conditions, then such levy or assessment shall be paid by the Contractor at its sole cost and is not reimbursed by the CITY OF IQALUIT.
 - b) Employer's liability insurance with limits not less than \$500,000 for each accidental injury to or death of the Contractor's employees engaged in the work. If Workers' Compensation insurance exists, then in such event, the aforementioned Employer's Liability insurance shall not be required but the Comprehensive General Liability policy referred to in item (d) herein shall contain an endorsement providing for Contingent Employers' Liability insurance.
 - c) Motor Vehicle, water craft and snow craft standard liability insurance covering all vehicles and/or craft owned or non-owned, operated and/or licensed by the Contractor and used by the Contractor in the performance of this agreement in an amount not less than one million dollars (\$1,000,000.00) per occurrence for bodily injury, death and damage to property; and with respect to busses limits of not less than one million dollars (\$1,000,000.00) for vehicle hazards and not less than one million dollars (\$1,000,000.00) for Bodily Injury to or death of one or more passengers and loss of or damage to the passengers property in one accident.)
 - d) Comprehensive General Liability Insurance with limits of not less than \$2,000,000 (inclusive) per occurrence for bodily injury, death and damage to property including loss of use thereof. Such insurance shall include but not be limited to the following terms and conditions:
 - Products & Completed Operations Liability *
 - Contractor's Protective Liability
 - Blanket Contractual Liability
 - Broad Form Property Damage
 - Personal Injury Liability
 - Cross Liability
 - Medical Payments



CONSTRUCTION SERVICES
PART II – SERVICE AGREEMENT



- Non-owned Automobile Liability *
- Contingent Employers Liability *
- Employees as Additional Insureds *

***WHERE APPLICABLE**

- e) Professional Liability Insurance with limits of not less than two hundred fifty thousand dollars (\$250,000.00) per claim and five hundred thousand dollars (\$500,000.00) in the annual aggregate, to cover claims arising out of the rendering of or failure to render any professional service under this contract or agreement.

All policies shall provide that thirty days written notice be given to the CITY OF IQALUIT prior to any cancellations of any such policies.

The Comprehensive General Liability Insurance policies shall name the CITY OF IQALUIT and any permitted sub-contractor's as additional insureds only with respect to the terms of this contract and shall extend to cover the employees of the insureds hereunder.

The Contractor shall be responsible for any deductibles, exclusions and/or insufficiency of coverage relating to such policies.

The Contractor shall deposit with the CITY OF IQALUIT prior to commencing with the work a certificate of insurance evidencing the insurance(s) required by this clause in a form satisfactory to the CITY OF IQALUIT and with insurance companies satisfactory to the CITY OF IQALUIT.

IN WITNESS WHEREOF the parties hereto have set their hand as of the date and year entered below.

FOR THE CITY OF IQALUIT:

FOR THE CONTRACTOR:

Name/Title

Name/Title

Signature

Signature

Date

Date

Witness

Witness

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1. GENERAL PROVISIONS

1.1 Definitions

The following terms, whenever used in the Contract Documents, shall mean:

- a) **“Adjustment”**: a change in either the Contract Price or the Contract Time, or both, in accordance with the applicable provisions of the Contract Documents;
- b) **“Applicable Laws”**: any and all applicable laws, rules, regulations, by-laws, codes and orders of any and all government bodies, agencies, authorities and courts;
- c) **“Arbitrator”**: the person appointed under GC 9.3(a);
- d) **“Articles of Agreement”**: the executed Articles of Agreement;
- e) **“Change Order”**: a written instrument prepared by the City Representative and signed by the City and the Contractor stating their agreement upon:
 - i. a change in the Work, and
 - ii. the method and/or the amount of Adjustment, if any;
- f) **“City”**: the party defined as such in the Articles of Agreement;
- g) **“City Representative”**: A Consultant, Owner’s Agent, and/ or Engineer designated as such in the Articles of Agreement, or such other person designated as such by the City from time to time, who will be responsible for administering the construction contract;
- h) **“Claim”**: any or all of:
 - i. a demand or assertion by the City or the Contractor seeking an interpretation of Contract terms, an Adjustment, or other relief with respect to the terms of this Contract;
 - ii. other disputes and matters in question between the City and the Contractor arising out of or relating to this Contract; and
 - iii. allegations by the City or the Contractor of errors or omissions on the part of the City Representative;
- i) **“Completion Date”**: the date of Substantial Performance of the Work, as certified by the City Representative;

- j) **“Construction Schedule”**: the Construction Schedule referred to in GC 3.6, including revisions thereto as provided in GC 3.6, GC 10.2(d) or otherwise required by the City Representative;
- k) **“Consultant”**: a person retained by the City to act as the City’s Representative;
- l) **“Contract”**: the undertaking by the parties to perform their respective duties and discharge their obligations as set out in the Contract Documents which represents the entire agreement between the parties;
- m) **“Contract Documents”**: the documents referred to in the Articles of Agreement and amendments agreed on by the parties in writing;
- n) **“Contract Price”**: the sum stated in the Articles of Agreement and as may be amended during the progress of the Work;
- o) **“Contract Time”**: the time stated in the Articles of Agreement, and as may be amended during the progress of the Work, elapsing from the date of commencement of the Work until the date of Substantial Performance of the Work, as certified by the City Representative;
- p) **“Contractor”**: the party defined as such in the Articles of Agreement;
- q) **“Day”**: a calendar day;
- r) **“Engineer”**: a person retained by the City to act as the City’s Representative;
- s) **“Final Completion”**: when the Work has been performed in accordance with the Contract Documents, as certified by the City Representative;
- t) **“GC”**: an acronym reference to a clause in these general conditions of this Contract;
- u) **“Holdback Payment Certificate”**: a certificate issued in accordance with GC 5.6;
- v) **“Lien Holdback”**: has the meaning given in GC 5.2(a)(i);
- w) **“Owner’s Agent”**: a person retained by the City to act as the City’s Representative;
- x) **“Project”**: the total construction of which the Work to be performed under this Contract may be the whole or a part;
- y) **“Referee”**: the person appointed under GC 9.2(a);

- z) **“Site”**: the land or actual place designated in the Contract Documents for the performance of the Work;
- aa) **“Subcontractor”**: a party having a direct contract with the Contractor for the performance of any part of the Work, or to supply products worked to a special design for the Work;
- bb) **“Substantial Performance”**: when the Work has progressed to the point where, in the opinion of the City Representative as evidenced by the certificate of Substantial Performance, it is sufficiently complete, in accordance with the Contract Documents, so that the Work can be utilized for the intended purpose;
- cc) **“Supplier”**: a party having a direct contract with the contractor to supply products not worked to a special design for the Work;
- dd) **“Work”**: all or any part of the construction and services required by the Contract Documents, including all labour, materials, equipment and services provided or to be provided by the Contractor to fulfill his obligations under this Contract.

1.2 Documents and Interpretation

- a) It is the intent of the Contract Documents to include all labour, materials, equipment and services necessary to perform the Work in accordance with the Contract Documents. Any labour, materials, equipment and services that may be reasonably inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result, will be furnished and performed by the Contractor, whether or not specifically called for.
- b) The Contract Documents are complementary, and what is required by one document shall be as binding as if required by all.
- c) This Contract represents the entire agreement between the City and the Contractor and supersedes all prior negotiations, representations and agreements, either written or oral.
- d) When words or phrases which have a well-known technical or construction industry or trade meaning are used in the Contract Documents and are not otherwise defined, they shall be interpreted in accordance with that meaning.
- e) The Contract Documents shall not be construed to create a contractual relationship of any kind between:

- i. the City Representative and the Contractor, a Subcontractor, a Supplier, a subcontractor or its or their agent or employee, or other person performing any of the Work;
- ii. the City and a Subcontractor, a Supplier, or their agent, employee, or other person performing any of the Work, or
- iii. between any persons or entities other than the City and the Contractor.

The City Representative shall however, be entitled to demand performance and enforce the obligations of the parties under this Contract, to facilitate performance of the City Representative's duties.

- f) Clarifications and interpretations of the Contract Documents shall be issued by the City Representative as provided in GC 4.1.
- g) In the event of any inconsistency or conflict between provisions of the Contract Documents, the following shall apply:
 - i. documents of later date shall govern over earlier documents of the same classification;
 - ii. figured dimensions shown on drawings shall govern over scaled dimensions;
 - iii. drawings of larger scale shall govern over those of smaller scale;
 - iv. specifications shall govern over drawings;
 - v. the general conditions shall govern over the specifications;
 - vi. supplementary general conditions shall govern over the general conditions, and
 - vii. the Articles of Agreement shall govern over all documents.
- h) The City shall provide the Contractor with as many sets of Contract Documents as are reasonably required for the performance of the Work.
- i) The Contractor shall maintain a set of drawings on the Site and record accurately and legibly all deviations caused by Site conditions and written instructions or change orders ordered by the City Representative. The Contractor shall also keep one copy of all current Contract Documents and shop drawings on the Site, in good condition. These documents shall be available to the City Representative throughout the duration of the Work.

- j) All Contract Documents, including copies, and all models furnished by or to the Contractor are and shall remain the property of the City and are not to be used on other work. The Contract Documents are not to be copied or revised in any manner without the City's written consent.
- k) The division into sections, the table on contents, and the heading in the Contract Documents, other than in the drawings and specifications, form no part of this Contract but are inserted for convenience of reference only.
- l) Any reference to a statutory provision shall include any subordinate legislation made and from time-to-time amended, extended or re-enacted.
- m) Unless otherwise indicated, all dollar amounts referred to in this Contract are in lawful money of Canada.
- n) If any provision of this Contract is determined to be invalid or unenforceable in whole or in part, such invalidity or unenforceability shall attach only to such provision and everything else in this Contract shall continue in full force and effect, In the event that any provision of this Contract, as amended from time to time, shall be deemed invalid or void, in whole or in part, by any court of competent jurisdiction, the remaining terms and provisions of this Contract shall remain in full force and effect.
- o) The schedules, appendices and attachments to this Contract are an internal part of this Contract and a reference to this Contract includes a reference to the schedules, appendices and attachments.
- p) The language of the specifications and other documents comprising this Contract is in many cases written in the imperative for brevity. Clauses containing instruction, directions or obligations are directed to the Contractor and shall be construed and interpreted as if the words "the Contractor shall" immediately preceded the instructions, directions or obligations.
- q) Unless the context otherwise requires, wherever used herein the plural includes the singular, the singular includes the plural, and each of the masculine, feminine and neuter genders include all other genders.
- r) Unless otherwise provided in this Contract, all accounting and financial terms used in this Contract shall be interpreted and applied in accordance with Canadian generally accepted accounting principles, consistently applied from one period to the next.
- s) References containing terms such as:

- i. “hereof,” “herein,” “hereto,” “hereinafter,” and other terms of like import are not limited in applicability to the specific provision within which such references are set forth but instead refer to this Contract taken as a whole; and
- ii. “includes” and “including”, whether or not used with the words “without limitation” or “but not limited to”, shall not be deemed limited by the specific enumeration of items but shall in all cases be deemed to be without limitation and construed and interpreted to mean “includes without limitation” and “including without limitation”;
- t) Whenever the terms “will” or “shall” are used in this Contract in relation to the Contractor they shall be construed and interpreted as synonymous and to read “the Contractor shall”.

1.3 Notices

- a) Where a notice is required by the Contract Documents to be given in writing to the Contractor, it may be delivered personally to the Contractor or his site superintendent, or delivered or sent by mail or facsimile transmission to the Contractor’s address set out in the Articles of Agreement or to his office at or near the Site.
- b) Where a notice is required by the Contract Documents to be given in writing to the City Representative, it may be delivered personally, by email, or delivered or sent by mail or facsimile transmission to the City Representative’s address set out in the Articles of Agreement, or to the office of the City Representative at or near the Site.
- c) Notwithstanding the foregoing provisions of this GC 1.3, each party shall use the most expeditious method of giving the written notice or communication.
- d) A written notice or communication sent by mail shall be deemed to have been received ten (10) calendar days from the date of posting. Whenever a notice or communication is sent by facsimile transmission, acknowledgement from the receiving party must be given to the other party that the notice or communication has in fact been received, for it to be effective; this acknowledgement may be made verbally, in person or by telephone. If no such acknowledgement is given, it shall be deemed to have been received and be effective ten (10) calendar days from the date the original document was sent.

1.4 Rights and Renders

- a) No obligations or responsibilities of any kind by or on behalf of the City shall be implied into the Contract Documents if in the opinion of the City Representative, it is

not reasonable under the circumstances to imply that such obligations or responsibilities form part of the Contract Documents.

- b) Any failure by the City or the City Representative to enforce or to require the strict performance of any of the provisions of this Contract shall not, in any way constitute a waiver of those provisions and affect or impair those provisions or any right the City has at any time to avail itself of any remedies the City may have for any breach of these provisions or to require the Work to be performed in accordance with the Contract Documents.
- c) Except as expressly provided in the Contract Documents, the duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law.

1.5 Assignment

This Contract, or any part of it, or any benefit or interest in it, shall not be assigned by either party without the prior written consent of the other party, which consent shall not be unreasonably withheld. Notwithstanding the foregoing, the City has the right, in the event of any default by the Contractor, to assign all its rights and remedies against the Contractor to the Government of Nunavut.

1.6 Applicable Law

This Contract shall be deemed to have been made in Nunavut and shall be governed by and interpreted in accordance with the laws of Nunavut and the laws of Canada applicable therein.

1.7 Successors and Assigns

This Contract shall ensure to the benefit of and be binding upon the parties hereto and their lawful heirs, executors, administrators, successors and assigns.

2. CITY'S OBLIGATIONS

2.1 Payment

Subject to any other provision in the Contract Documents, the City shall make payments to the Contractor at the times and in the manner set out in GC 5.

2.2 Site Availability

- a) The City shall furnish, as indicated in the Contract Documents, the lands upon which the Work is to be performed, rights-of-way and easements for access to the Site and any other lands designated for the use of the Contractor. The Contractor shall

provide and pay for any additional lands and access the Contractor may require, in accordance with GC 3.10(a).

- b) Except for permits and fees which are the responsibility of the Contractor under GC 3.13, the City shall obtain and pay for necessary approvals, easements and charges required for the development of the Site and for the use or occupancy of permanent structures or for permanent changes in existing facilities.

2.3 Consultant, Owner's Agent, and/ or Engineer as City Representative

- a) Unless otherwise provided in the Contract Documents, the City shall communicate with the Contractor through the Consultant, and the Contractor shall communicate with the City through the Consultant.
- b) If the contract with the Consultant is terminated, the City shall promptly appoint a replacement.

2.4 Reference Points

The City shall establish physical reference points for construction on the Site which are, in the opinion of the City Representative, necessary to enable the Contractor to proceed with the Work. The Contractor shall safeguard such reference points in accordance with GC3.11(b).

2.5 Materials Supplied by the City

Any materials, instructions, information or services required to be supplied by the City under this Contract shall be furnished with reasonable promptness to avoid delay in the orderly progress of the Work.

2.6 Control of the Work

Neither the City nor the City Representative shall supervise or have control or authority over, nor be responsible for, the Contractor's means, methods, techniques or procedures of construction. Neither the City nor the City Representative will be responsible for the Contractor's failure to perform the Work in accordance with the Contract Documents, nor for its failure to comply with Applicable Laws.

2.7 Limitation of Liability

In no event, including without limitation if the City breaches its obligations under this Contract, shall the City be liable to the Contractor, its Subcontractors, its Suppliers, or any other parties engaged directly or indirectly by or acting on their behalf, for indirect loss, consequential loss, loss of business opportunity or loss of anticipated profit.

3. CONTRACTOR'S OBLIGATIONS

3.1 General Obligations

Notwithstanding any omissions from the Contractor's tender, the Contractor is required to perform all of the Work required by the Contract Documents, including any Work which can be reasonably inferred from them as being necessary to produce the intended result. The Contractor is to perform the Work within the Contract Time, in accordance with the Construction Schedule referred to in GC 3.6.

3.2 Independent Contractor

The Contractor is an independent contractor and shall have complete control of the Work. The Contractor shall effectively direct and supervise the Work to ensure conformance with the Contract Documents. The Contractor shall be solely responsible for all construction means, methods, techniques, sequences and procedures and for coordinating all parts of the Work, except as may be otherwise specified in the Contract Documents.

Nothing in this Contract shall be construed to mean that the Contractor is an employee, agent or other representative of the City.

3.3 Review of Contract Documents

- a) By executing this Contract, the Contractor represents that the Contractor has reviewed the Contract Documents and has verified the dimensions, quantities and details described in them. Failure to discover or correct errors, omissions, conflicts or discrepancies which ought to have been discovered by such a review shall not relieve the Contractor from full responsibility for unsatisfactory Work, faulty construction or improper operations resulting therefrom, nor from rectifying such conditions at the Contractor's expense.
- b) If the Contractor proceeds with the Work in the face of an error, inconsistency or omission that the Contractor discovered, or that a competent Contractor reasonably experienced in the Work would have discovered, without additional instructions from the City Representative, then the Contractor shall at the Contractor's cost remove or replace any incorrectly constructed Work.

3.4 Site Conditions

- a) By executing this Contract, the Contractor represents that the Contractor is familiar with the conditions under which the Work is to be performed. The Contractor further represents that the Contractor understands the requirements of the Contract Documents and what effects the Site conditions will have on the Work. The Contractor's failure to visit the Site will not excuse the Contractor from the responsibility which otherwise would have been assumed, had the Contractor visited the Site.

- b) Following the start of the Work, if the subsurface conditions are substantially different from what could reasonably have been expected, based on a reasonable and proper examination of the Site by the Contractor and the information provided in the tender documents, if any, the Contractor must promptly notify the City Representative in writing prior to performing the Work. The Contractor may make a claim for changed site conditions in only accordance with GC 9.1.

3.5 Temporary Structures

The Contractor shall have the sole responsibility for the design, erection, operation, maintenance and removal of temporary structures and other temporary facilities and the design and execution of construction methods required in their use. The Contractor shall engage and pay for professional engineering personnel, registered to practice in Nunavut, skilled in the appropriate discipline, to perform these functions where required by law or by the Contract Documents and in all cases where such temporary facilities and their method of construction are of such a nature that professional engineering skill is required to produce safe and satisfactory results. The Contractor shall submit engineered documents to the City Representative, for review, before commencing temporary work.

3.6 Schedule

- a) Within fourteen (14) calendar days of executing the Articles of Agreement and as a condition of the first progress payment, the Contractor shall submit to the City Representative for review, a proposed Construction Schedule showing the anticipated time of commencement and completion of each of the major activities of the Work to be performed. This Construction Schedule shall include the sequence and coordination of the various operations and the estimated time required for the Work and shall provide sufficient detail to permit the City Representative to monitor the progress of the Work. The Contractor shall revise the proposed Construction Schedule as requested by the City Representative, and the Contractor shall perform the Work in strict adherence to the Construction Schedule, including revisions thereto required by the City Representative, unless it is changed in accordance with the terms of this Contract.
- b) If at any time it should appear to the City Representative that the actual progress of the Work does not conform to the Construction Schedule, the Contractor shall produce at the City Representative's request, a revised Construction Schedule showing the modifications necessary to ensure completion of the Work in accordance with the previously approved Construction Schedule and shall promptly adopt acceptable additional means and methods of construction, at no cost to the City, which will make up for the time lost and will ensure completion in accordance with the revised Construction Schedule.

- c) If the Contractor fails or refuses to revise the Construction Schedule as required by this GC, this Contract may be terminated at the City's option, in accordance with GC 10.3.
- d) The City Representative's review, comments, consent, acceptance or approval to the Construction Schedule shall not relieve the Contractor of any of the Contractor's obligations under this Contract.

3.7 Superintendent

- a) The Contractor shall assign a competent superintendent and necessary assistants, one or more of whom shall be in attendance at the Site at all times during the progress of the Work. The superintendent and necessary assistants, if any, shall be designated in writing to the City Representative and shall act as the Contractor's authorized representative at the Site. All written or oral communications to the superintendent shall be deemed to have been given to the Contractor. The superintendent shall only be replaced after the Contractor has received written approval from the City.
- b) The City may order the removal from the Work of any superintendent, supervisor, foreman or other employee who is in the opinion of the City, unfit for the Work, unskilled in the work assigned to him or otherwise unsuitable. Any person so removed shall not be re-employed on the Work by the Contractor or by a Subcontractor.

3.8 Subcontractors

- a) The Contractor shall not employ any Subcontractor without the approval of the City. Once the names of the proposed Subcontractors have been submitted, the Contractor shall not change these Subcontractors without the advance written consent of the City. If any changes are made without consent, this Contract may be terminated at the City's option, in accordance with GC 10.3.
- b) The City, through the City Representative, may, at any time during the performance of the Work, object to the use of a Subcontractor and direct the Contractor in writing to employ a different Subcontractor satisfactory to the City Representative.
- c) The Contractor shall be fully responsible to the City for the acts and omissions of Subcontractors, their agents, employees, and all parties engaged by the Contractor or its Subcontractors for the provision of work or the supply of materials.
- d) The Contractor agrees to incorporate the terms of the Contract Documents into all the Contractor's subcontract agreements.

- e) The Contractor shall maintain good order and discipline among the Contractor's employees and the Subcontractors engaged in the Work. The Contractor shall not employ, or permit Subcontractors to employ, workers who are not skilled in the assigned task. The Contractor shall employ sufficient workers to perform the Work in compliance with the Construction Schedule.

3.9 Other Contractors

- a) The City reserves the right to let separate contracts with other contractors or workers, or to undertake work using the City's own forces to do other work. If other contractors, workers or the City's own forces are sent onto the Site, with or without plant and material, the Contractor shall, to the satisfaction of the City, grant access to and cooperate with such persons and, in accordance with usual construction practice, coordinate the Work with the other work and connect to other work as specified or shown in the Contract Documents.
- b) The Contractor shall at all times remain the Constructor, with regards to the Health and Safety Act requirements. The City and other contractors entering the Contractors site shall be responsible for adhering to the Contractor's Health and Safety policy.
- c) If the sending of other contractors, workers or the City's own forces onto the Site results in a delay in the performance of the Work, which could not have been reasonably foreseen or anticipated by the Contractor when executing the Articles of Agreement, the Contractor may make a claim therefor in accordance with GC 6.2 and 9.1.
- d) If the Contractor discovers any deficiencies in any other work which might affect the Work, the Contractor shall immediately report such deficiencies to the City Representative and then confirm such report in writing.

3.10 Use of the Site

- a) The Contractor shall make every effort to confine the Contractor's equipment and plant, storage of materials and operations to limits indicated by the Contract Documents, by a specific direction of the City Representative or by Applicable Laws and shall not unreasonably occupy the Site. Where the Contractor requires additional land for the erection of temporary facilities and storage of materials, including access to them, the Contractor shall arrange for such and assume all costs and liabilities arising therefrom.
- b) The Contractor shall not load or permit to be loaded on any part of the Work, a weight or load or force that will endanger its safety or exceed the design loads.

- c) The Contractor shall not interfere in any way with the work or scheduling of any other contractor, worker or employee of the City. Subject to GC 3.9(b), in order to avoid or minimize such interference, the City may in its absolute discretion, establish schedules or methods and shall notify the Contractor accordingly.

3.11 Survey

- a) The Contractor shall provide the City Representative with assistance, as required, to make any surveys and measurements, and to establish or check lines and grades.
- b) The Contractor shall safeguard all points, stakes, grade marks and benchmarks made or established on the Work. The Contractor shall bear the expense of re-establishing them and for rectifying Work improperly installed due to the Contractor's failure to safeguard such points, stakes and marks. Additional surveys and staking required by the Contractor to perform the Work, shall be provided by the Contractor at its expense.

3.12 Protection of the Work, Property and the Public

- a) The Contractor shall be responsible for protecting the Work, the City's property at the Site including the Contract Documents and any plant and material, including plant and material supplied by the City to the Contractor, against loss or damage from any cause but subject to GC 3.15(c). In particular, the Contractor shall take necessary precautions, at the Contractor's expense, to ensure that:
 - i. no person, adjacent property, right, easement or privilege is injured, damaged or infringed by reason of the Contractor's activities in performing the Work;
 - ii. pedestrian and other traffic on any public or private road or waterway is not unduly impeded, interrupted or endangered by the performance or existence of the Work;
 - iii. fire hazards in or about the Work or the Site are minimized;
 - iv. adequate medical services are available to all persons employed on the Work at all times during the performance of the Work;
 - v. adequate sanitation measures are taken in respect of the Work; and
- b) The City Representative may order the Contractor to do such things and to perform such additional Work as the City Representative considers reasonable and necessary to ensure compliance with or to remedy a breach of GC 3.12(a) and the Contractor shall comply with the directions of the City Representative, at the Contractor's expense.

3.13 Permits

- a) The Contractor shall procure and post at the Site all permits, certificates and licenses required for the construction of the Work and shall be responsible for all fees in respect thereof.
- a) The Contractor will be responsible for procuring and coordinating all permits issued by the City's Public Works and Engineering Department. Such permits include:
 - i. Water & Sewer Service Connection/ Disconnection Permit
 - ii. Utility Permit
 - iii. Road Closure Permit

Permit applications must be submitted to the City twenty (20) business days prior to the start of the works.

3.14 Applicable Laws

- a) The Contractor shall perform the Work and give any required notices in full compliance with all Applicable Laws, ordinances, rules, regulations, codes and orders of the municipal and other authorities having jurisdiction which are in or come into force during the performance of the Work.
- b) The Contractor shall have due regard for the protection of the environment in the performance of the Work and shall not place any materials, including without limitation, hazardous materials, or dispose of any such materials, or perform any Work in a manner contrary to applicable federal or territorial or municipal environmental laws and regulations, either at the Place of the Work, or at any other place or property.

3.15 Material and Plant Supplied by City

- a) The Contractor is liable for any loss or damage to material, plant or real property that is supplied or placed by the City in the care, custody and control of the Contractor for use in connection with the Work, whether or not that loss or damage is attributable to causes beyond the Contractor's control.
- b) The Contractor shall not use any material, plant or real property placed in the Contractor's care, custody and control by the City, except for the purpose of performing the Work.

- c) The Contractor is not liable to the City for any loss or damage to material, plant or real property if that loss or damage results from and is directly attributable to reasonable wear and tear.

3.16 Equipment, Plant and Material Supplied by Contractor

- a) Unless otherwise specified in the Contract Documents, the Contractor shall furnish and assume full responsibility for all materials, equipment, labour, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities and all other facilities and incidentals necessary for the performance, testing, finishing, start-up and completion of the Work. All materials, equipment, facilities, etc., furnished by the Contractor shall be maintained in a working, clean and sanitary manner.
- b) Materials provided shall be new unless otherwise specified in the Contract Documents. Products that are not specified shall be of a quality best suited to their purpose and use, as approved by the City Representative.
- c) All equipment, plant and material owned by the Contractor and to be incorporated in the Work, from the time of initial delivery to the Site, shall be deemed to be the property of the City; provided always that the vesting of such property shall not prejudice the right of the Contractor to the sole use of the said equipment, plant and material for the purpose of performing the Work nor shall it affect the Contractor's responsibility to operate and maintain the same in accordance with the Contract Documents. The City shall not at any time be liable for the loss of, damage to or risk of loss of any of the Contractor's equipment, plant or materials.

3.17 Workers' Compensation Act

- a) The Contractor shall comply with and ensure compliance at time of tender by all Subcontractors, with the requirements of the Workers' Compensation Act, R.S.N.W.T. 1988, c. W-6, as duplicated for Nunavut by s. 29 of the Nunavut Act. The Contractor and its Subcontractors shall maintain accounts in good standing with the Workers' Safety and Compensation Commission. The Contractor shall provide verification from the Workers' Compensation Board that the Contractor's account is in good standing prior to the release of holdbacks, at the end of the warranty period and as requested by the City Representative. The City may refuse to make a payment to the Contractor unless the Contractor furnishes evidence from the Workers' Compensation Board that the Contractor's account is in good standing.
- b) If the City receives a notice from the Workers' Compensation Board that the Contractor's accounts, or any Subcontractors' accounts are not in good standing, or if a demand for payment is received, the City may suspend payments due to the Contractor until a letter of clearance is obtained or the City has paid the amount on behalf of the Contractor.

- c) If the City is required to pay any amount to the Workers' Compensation Board on behalf of the Contractor, or any Subcontractor, the City may deduct the amount from any amount owing to the Contractor under this or any other contract, or may demand a reimbursement by the Contractor to the City for the amount paid by the City.
- d) If at any time the performance of the Work is stopped because the Contractor unreasonably fails or refuses to comply with a regulation or order issued pursuant to the Workers Compensation Act, then such failure or refusal shall be considered a default under this Contract, and this Contract may be terminated at the City's option, in accordance with GC 10.3.

3.18 Occupational Health and Safety

- a) The Contractor shall be solely responsible for construction safety at the Site as and to the extent required by the Safety Act, in effect at time of tender, and any other applicable construction safety legislation, regulations and codes, any City safety Policies, as amended from time to time, and by good construction practice.
- b) In any case where, pursuant to the provisions of the Safety Act, R.S.N.W.T. 1988, c. S-1, as duplicated for Nunavut by s. 29 of the Nunavut Act, the Director of Inspections or a Safety Officer orders the Contractor or any Subcontractor performing the Work, to cease work because of failure to install or adopt safety devices directed by the regulations made under the said Act, or required by it, or because the Director of Inspections or a Safety Officer is of the opinion that conditions of immediate danger exist that would likely result in injury to any person, the City may exercise its right to terminate this Contract or suspend the Work immediately, in accordance with GC 10, until the default or failure is corrected.

3.19 Cutting and Patching

- a) The Contractor shall do all cutting, fitting or patching of the Work that may be required to tie in properly with the work of other contractors shown in, or reasonably inferable from the Contract Documents.
- b) The Contractor shall not endanger any existing Work by cutting, patching or otherwise, and shall not cut or alter the work of any other contractor save with the consent of the City Representative and then only to the extent permitted by the City Representative.
- c) The Contractor shall not unreasonably withhold from the City or a separate contractor the Contractor's consent to cutting or otherwise altering the Work in accordance with any direction given by the City Representative.

3.20 Defective Work

- a) Defective work, whether the result of poor workmanship, use of defective products or damage through carelessness or other act or omission of the Contractor or any Subcontractor, and whether incorporated in the Work or not, which has been rejected by the City Representative as failing to conform to the Contract Documents, shall be removed promptly from the Work and replaced or re-executed by the Contractor in accordance with the Contract Documents, at the Contractor's expense.
- b) Where any part of the Work is damaged by such removals, replacements or re-execution, it shall be made good, promptly, at the Contractor's expense.
- c) Where the Contractor fails to correct defective or rejected work within the time limits specified by the City Representative, the City may correct defective or rejected Work and deduct the cost of same from the Contract Price, or may terminate this Contract in accordance with GC 10.3.
- d) In cases of emergency, the City may take whatever action it deems necessary to correct defective or rejected Work and deduct the cost of same from the Contract Price.
- e) If, in the opinion of the City Representative, it is not expedient to correct defective work or work not done in accordance with the Contract Documents, the City may deduct from the Contract Price the difference in value between the Work as done and that required by this Contract, as determined and certified by the City Representative.

3.21 Testing and Inspection

- a) Unless otherwise specified in the Contract Documents, the Contractor shall not rely on the City's testing program, for the Contractor's own quality control, but shall perform such testing as may be required to ensure that the Work complies in all respects with the Contract Documents.
- b) The Contractor shall promptly provide the City Representative with two copies of all certificates, inspection and testing reports required by the Contract Documents or ordered by the City Representative.
- c) The City Representative may conduct quality control testing regarding the acceptability of materials used in the Work and the Contractor shall furnish for the City Representative's approval such samples as the City Representative may reasonably require, at the Contractor's expense.
- d) The City Representative may order retesting of questioned Work. If such retesting shows the Work to comply with the provisions of this Contract, the City shall pay the

cost of retesting. If the retesting shows that through the fault of the Contractor the Work does not so comply, the Contractor shall pay all associated costs. Testing which is paid for by the City shall not be subject to direction or control by the Contractor.

- e) The City Representative shall at all times have access to the Work and the Contractor shall provide proper facilities for such access and for inspection. If any Work should be covered without the approval or consent of the City Representative, it must, if required by the City Representative, be uncovered for examination and subsequently recovered, both at the Contractor's expense.
- f) Any inspection of the Work by the City Representative or the failure of the City Representative to make any inspection, or:
 - i. the thoroughness or lack of thoroughness of any inspection made by the City Representative;
 - ii. the failure of the City Representative to observe defective workmanship or materials either by the Contractor or a Subcontractor;
 - iii. the failure to direct the attention of the Contractor or Subcontractor, or of any other person, to the inadequacy of the manner in which this Contract is being performed, or
 - iv. the inadequacy or insufficiency of any equipment or material used in the performance of or incorporated in the Work,

shall not relieve the Contractor from the responsibility for any failure to supply materials and complete the Work strictly in accordance with the Contract Documents.

3.22 Site Cleanliness

- a) The Contractor shall maintain the Site in a tidy condition and free from the accumulation of waste material and debris, to the satisfaction of the City Representative.
- b) Before the issuance of a certificate of Substantial Performance, the Contractor shall remove all the Contractor's tools and material not required for the remaining Work, and all waste material and other debris, and shall ensure that the Work and the Site are clean and suitable for occupancy or use by the City, unless otherwise directed by the City Representative.

- c) Before the issuance of a certificate of Final Completion, the Contractor shall remove from the Site all the Contractor's tools and material and any waste material and other debris, to the satisfaction of the City Representative.
- d) If the Contractor fails or refuses to remove all such tools, materials, equipment and waste within a reasonable time after achieving Final Completion then, on written notice from the City Representative to the Contractor specifying a reasonable time to remedy such failure or refusal, the City may do or cause to be done the removal and all reasonable resulting costs incurred by the City may be deducted from any amounts owing by the City to the Contractor.
- e) The Contractor's obligations described above do not extend to waste material and other debris caused by the City's agents or other contractors.

3.23 Claims Against and Obligations of the Contractor

- a) The Contractor shall pay out and discharge all its lawful obligations and shall satisfy all lawful claims against it arising out of the performance of the Work at least as often as this Contract requires the City to pay the Contractor.
- b) The Contractor shall, in accordance with the Contract Documents and whenever requested to do so by the City Representative, make a statutory declaration regarding the existence and condition of any obligations of and claims against the Contractor, any Subcontractors, or Suppliers. Upon request by the City, the Contractor shall provide letters from its Subcontractors and Suppliers regarding the status of any accounts with the Contractor and the details of any claims, if any.
- c) The City may, in its absolute discretion, and at any time prior to the final release of holdbacks, in order to discharge lawful obligations of and satisfy lawful claims against the Contractor, any Subcontractors or Suppliers arising out of the performance of the Work, pay any amount that is due and payable to the Contractor pursuant to this Contract, directly to the obligees of and the claimants against, the Contractor, Subcontractor or Supplier. When the parties involved in the claim are in agreement on the validity and amount of the claim, the City may treat this as a lawful claim.
- d) Where no agreement is reached between the parties as referred to above, the City may withhold payment, without any obligation to pay interest, until the validity and amount of the Claim is established by legal proceeding. The City may, in its absolute discretion, bring the matter before the Nunavut Court of Justice by way of Interpleader, and shall dispose of the funds withheld in accordance with the direction of the Court.

- e) A payment made pursuant to this provision is, to the extent of the payment, a discharge of the City's liability to the Contractor under this Contract and may be deducted from an amount payable to the Contractor under this Contract.

3.24 Patent Rights

The Contractor shall indemnify the City from and against all claims, liabilities and proceedings for or on account of infringement of any patent rights, design trademark or name or other protected rights in respect of the Contractor's equipment, materials or tools used for or in connection with, or for incorporation into the Work, and from and against all damages, costs, charges and expenses whatsoever relating thereto.

3.25 Royalties

Except where otherwise stated, the Contractor shall pay all tonnage and other royalties, rent and other payments or compensation, if any, for obtaining building materials required for the Work.

3.26 Records to be Kept by Contractor

- a) The Contractor shall maintain complete records of the Contractor's estimated and actual costs of the Work together with all tender calls, quotations, contracts, correspondence, invoices and receipts. In accordance with the terms of this Contract, these documents shall be available for audit and inspection by the City or by persons acting on behalf of the City when requested. The Contractor shall furnish any such person with any information it may require from time to time in connection with these records.
- b) Records maintained by the Contractor shall be kept intact for six years following the end of the warranty period or such other period of time as directed by the City Representative.
- c) The Contractor shall ensure that all of its Subcontractors comply with the above requirements.

3.27 Public Ceremonies and Signs

- a) The Contractor shall not permit any public ceremony in connection with the Work without the prior written consent of the City.
- b) The Contractor shall not erect or permit the erection of any sign or advertising on the Site without the prior written consent of the City.

3.28 Non-Compliance by Contractor

- a) If the Contractor fails to comply, within a reasonable time, with any decision or direction given by the City Representative, the City may employ such methods as the City deems advisable to do that which the Contractor failed to do.
- b) The Contractor shall pay the City the total of all costs, expenses and damages incurred or sustained by the City by reason of the Contractor's failure to comply with any decision or direction referred to above, including the cost of any method employed by the City. Where the amounts owing to the Contractor under this Contract are insufficient to cover such costs, the Contractor shall pay the balance to the City immediately.

4. ADMINISTRATION BY CITY REPRESENTATIVE

4.1 City Representative's Duties and Authority

- a) The City Representative will administer this Contract on behalf of the City as provided in the Contract Documents.
- b) The City Representative will be the City's representative until the Work has been completed in accordance with the Contract Documents.
- c) Except as expressly stated in the Contract Documents, the City Representative shall have no authority to relieve the Contractor of any of the Contractor's obligations under this Contract.
- d) The City Representative will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work performed and shall deal with Claims as they arise, in accordance with GC 9.1.
- e) If any error, inconsistency, or omission in the Contract Documents is discovered, the City Representative shall provide directions or clarifications to the Contractor.
- f) During the progress of the Work, the City Representative shall have authority to reject Work that, in the City Representative's opinion, does not conform with the requirements of the Contract Documents, or to issue written additional instructions regarding the Work which may, in the opinion of the City Representative, be necessary to supplement or clarify the Contract Documents. Such additional instructions shall be consistent with the intent of the Contract Documents, shall not entitle the Contractor to an Adjustment and shall be binding upon and be carried out promptly by the Contractor.
- g) Wherever, under this Contract, the City Representative is required to exercise discretion by:
 - i. rendering a decision, opinion or consent;

- ii. expressing satisfaction or approval;
- iii. determining value; or
- iv. otherwise taking action which may affect the rights and obligations of the City or the Contractor,
the City Representative shall do so impartially, consistent with the terms of this Contract and having regard to all of the circumstances. Any such decision, opinion, consent, expression of satisfaction or approval, determination of value or action, may be opened up, reviewed or revised as provided in GC 9.

4.2 Observing the Work

The City Representative will visit the Site at intervals appropriate to the stage of construction to become generally familiar with the progress and quality of the completed Work and to determine in general if the Work is being performed in a manner indicating that the Work, when completed, will be in accordance with the Contract Documents. However, the City Representative will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. On the basis of such on-site observations, the City Representative will keep the City informed of the progress of the Work and will endeavour to guard the City against defects and deficiencies in the Work.

4.3 City Representative's Decision

Except as provided in GC 4.1(g), neither the City Representative's authority or responsibilities under GC 4 or under any other provision of the Contract Documents nor any decision made by the City Representative in good faith either to exercise or not exercise such authority or responsibility, shall create, impose or give rise to any duty or responsibility owed by the City Representative to the Contractor, any Subcontractor, Supplier, or to any surety for or employee or agent of any of them.

5. PAYMENT AND COMPLETION

5.1 Progress Payments

- a) At the end of each calendar month, or such other period as is agreed to between the City Representative and the Contractor, the Contractor shall deliver to the City Representative a written progress claim that describes the Work that has been completed and any material that was delivered to the Site but not yet incorporated into the Work since the last progress claim. The Contractor's progress claim shall be submitted on the last day of the month, for the month which progress is being claimed. If the last day coincides on a weekend or holiday, it will be issued on the following business day.

- b) The City Representative shall, within fourteen (14) business days of receipt of the Contractor's progress claim, review the claim and prepare a certificate for payment which may take the form of an endorsement on the progress claim. If the City Representative amends the progress claim, he will promptly notify the Contractor in writing, giving reasons for the amendment.
- c) Where the Contractor does not submit a progress claim or where the City Representative does not endorse the Contractor's progress claim, the City Representative may calculate the progress payment and prepare a certificate for payment by the City. Where unit prices apply, payment will be calculated on the basis of the unit prices specified in the Contract Documents and the units of Work completed as determined by the City Representative. Where a lump sum price applies, payment will be calculated on the basis of the City Representative's estimate of the percentage of the Work completed.
- d) The progress certificate will show, to the end of the period covered by the progress claim, the estimated value of all labour and materials incorporated into the Work, GST monies paid, all materials stored at the Site and all Change Orders certified by the City Representative. The certificate shall also show the aggregate of previous payments and the amounts withheld. The gross amount shown on such certificate, less the aggregate of all payments to date and sums withheld, shall become due and be payable by the City to the Contractor within thirty (30) calendar days following receipt by the City of the progress certificate.
- e) The estimates referred to above shall not bind the City or the City Representative in any manner in the preparation of the final estimate of the Work done, but shall be held to be approximate only and shall in no case be taken as an acceptance of the Work or as a release of the Contractor from the Contractor's responsibilities under this Contract.
- f) If for any reason the City disputes the net amount shown for payment on a progress certificate the City shall, within the time specified in this GC, pay to the Contractor any amount not disputed and also deliver to the Contractor and the City Representative written reasons for any deductions.

5.2 Contract Holdbacks

- a) The City will retain Contract holdbacks in accordance with the following:
 - i. ten percent from each progress payment made prior to the issuance of the first Holdback Payment Certificate by the City Representative (the "Lien Holdback"), and

- ii. five percent Owners Offset from any payments made to the Contractor following the issuance of the first Holdback Payment Certificate, other than from holdback payments.

5.3 Substantial Performance

- a) When the Contractor considers the Work ready to be utilized for its intended purpose, the Contractor may apply in writing to the City Representative to issue a Certificate of Substantial Performance. The Contractor shall prepare and submit with its application a comprehensive list of deficiencies and/or incomplete items to be completed or corrected, a statutory declaration as per GC 3.23(b) and particulars of, or a waiver of, all outstanding claims against the City, arising out of the Work. The Contractor shall proceed promptly to complete and correct the items on the list. Failure to include an item on this list does not alter the Contractor's responsibility to complete the Work in accordance with the Contract Documents.
- b) Following the receipt of an application from the Contractor for a certificate of Substantial Performance, the City Representative shall, with reasonable promptness, make an inspection and assessment of the Work. Within seven (7) calendar days of the inspection, the City Representative shall notify the Contractor of his approval, or reasons for, disapproval of the application. If the City Representative determines that the Work is substantially completed, he shall issue a certificate of Substantial Performance to the City and the Contractor. A list of items to be completed or rectified shall accompany the certificate. If the City Representative does not consider the Work to be substantially completed, he shall notify the Contractor in writing of the reasons why and list the items to be completed or rectified, of which the City Representative is aware.
- c) The City may deduct from the Contract Price, or any amounts due to the Contractor, the costs associated with the City Representative being called upon to perform more than one inspection for the purpose of determining Substantial Performance, when in the opinion of the City Representative, the Work was clearly not yet substantially complete.
- d) The certificate of Substantial Performance shall establish the date of Substantial Performance and shall fix the time within which the Contractor shall complete or correct all items on the list accompanying the certificate. Warranties required by the Contract Documents shall commence on the date of Substantial Performance, unless otherwise provided, in the certificate of Substantial Performance.
- e) Similarly, in accordance with the procedure set out above, the City Representative may in its absolute discretion, issue a Certificate of Substantial Performance in respect of any part of the Work which has been both completed to the satisfaction of the City Representative and which the City has elected to occupy or use prior to completion.

- f) In addition to other holdbacks as provided by the Contract Documents, when considering Substantial Performance, the City may hold back from payments otherwise due to the Contractor the amount that is two times of the amount of a reasonable estimate, as determined by the City Representative, on account of deficient or defective Work already paid for. This holdback may be held, without interest, until such deficiency or defect is remedied. The items of defect or deficiency and the amounts of related holdback shall be listed separately on the payment certificate.

5.4 Final Completion

- a) Following Final Completion of the Work, including any testing, the Contractor shall provide the City Representative with the following:
- i. a statutory declaration as referred to in GC 3.23(b) that:
 - A. the Work has been completed in accordance with the Contract Documents; and
 - B. no claims exist or alternatively setting out the particulars of any claims relating to personal injury or death or property loss or damage arising out of the Work, and any alleged infringement by the Contractor of a patent or other property right in performing this Contract; and
 - ii. particulars of, or a waiver of, all outstanding claims against the City, arising out of the Work.
- b) Following receipt of the documents referred to in GC 5.4(a), the City Representative shall, with reasonable promptness, conduct an inspection and assessment of the Work to verify that the Work has been completed in accordance with the Contract Documents. Within fourteen (14) calendar days of receipt of the above documents, the City Representative shall either issue a certificate of Final Completion to the City and the Contractor or a list of items to be completed or rectified, of which the City Representative is aware. The City may deduct from monies owed to the Contractor the costs associated with the City Representative being called upon to perform more than one inspection.
- c) Receipt by the Contractor of the certificate of Final Completion shall entitle the Contractor to payment in accordance with GC 5.5.

5.5 Final Progress Payment

- a) The final progress payment certificate will be prepared following the issuance of the certificate of Final Completion. The final progress payment certificate will show the total amount payable to the Contractor, less any amounts retained.
- b) The final progress payment amount shall be paid by the City to the Contractor within thirty (30) calendar days following receipt by the City of the final progress payment certificate.

5.6 Holdback Release

- a) Forty-five (45) calendar days following the date of the issuance of the certificate of Substantial Performance by the City Representative, the Contractor may apply to the City for release of fifty percent of the Lien Holdback. The Contractor shall with such application provide the City Representative with a statutory declaration as referred to in GC 3.23(b), with the content referred to in GC 5.4(a)(i), and the particulars of a waiver of, all outstanding claims against the City, arising out of the Work. The City Representative shall, within fourteen (14) calendar days' receipt of the Contractor's application, issue a Holdback Payment Certificate or a list of items to be rectified prior to payment.
- b) Following the release of fifty percent of the Lien Holdback in accordance with GC 5.6(a), the Contractor may apply in writing for release of the remainder of all Contract lien holdback funds retained by the City, provided an irrevocable letter of credit, in a form acceptable to the City and from a bank and branch acceptable to the City, for the same amount is presented for the City's consideration. The City may, in its absolute discretion, accept or reject the Contractor's irrevocable letter of credit in place of the remainder of all Contract holdback funds.
- c) The irrevocable letter of credit referred to in this provision must be for the same amount as the remainder of all Contract lien holdback funds and must remain in place until expiry of the warranty period referred to in GC 11.4. Should the Contractor's irrevocable letter of credit be scheduled to expire prior to the end of such warranty period, the City may, at any time within the fourteen (14) calendar days prior to the expiry date, call upon and draw down the irrevocable letter of credit, unless the Contractor presents a renewal thereof with an expiry date beyond the warranty period.
- d) One year following the date of the issuance of the Certificate of Substantial Performance by the City Representative, the Contractor may apply to the City for release of the remainder of all Contract holdbacks or the return of irrevocable letters of credit, if any. The City Representative shall, within fourteen (14) calendar days of receipt of the Contractor's application, issue a Holdback Payment Certificate or a list of items to be rectified prior to payment.

- e) The City may withhold from monies owing to the Contractor, an amount equal to the City Representative's estimate of the value of all outstanding deficiencies.
- f) Subject to any applicable lien legislation requirements, holdback payments shall become payable or irrevocable letters of credit shall be returned by the City to the Contractor, within thirty (30) calendar days following receipt by the City of the Holdback Payment Certificate.

5.7 Delay in Making Payment

- a) Delay by the City in making payments when they are due pursuant to this provision shall not be a breach of this Contract by the City.
- b) Unless otherwise stated in this Contract, when the City delays in making a payment that is due pursuant to this clause, the Contractor shall be entitled to receive simple interest on the amount that is overdue, at the prime lending rate of the main banker of the City.

5.8 Right of Set-off

Without limiting any right of set-off or deduction given or implied by law or elsewhere in the Contract Documents, the City may set-off any amount payable to the City by this Contractor against any amount payable to the Contractor under this Contract.

6. TIME AND DELAYS

6.1 Time of the Essence

Time is of the essence of this Contract, including without limitation the dates and time limits stated in the Contract Documents. By executing this Contract, the Contractor confirms that this Contract Time is a reasonable period for performing the Work.

6.2 Delays

- a) Where a delay occurs in the progress of the Work and:
 - i. the delay is attributable to or within the control of the Contractor or its Subcontractors or was reasonably foreseeable by them at the time this Contract was entered into, the Completion Date will not be adjusted. The Contractor will be liable to the City for all costs and expenses incurred by the City, as well as for any losses resulting from the City's inability to utilize the Work for its intended purpose resulting from the delay, and the City may deduct such costs from payments owing to the Contractor under this Contract;
 - ii. the delay is due to an act or neglect by the City, the City Representative, or other contractor, or of an employee of any of them, then the Contractor may make a Claim therefor, in accordance with GC 9.1, or

- iii. the cause for the delay does not fall within the circumstances described in (i) or (ii) above, the Contractor may make a Claim for an Adjustment in the Contract Time (but not for an Adjustments of the Contract Price), in accordance with GC 9.1. This shall be the Contractor's sole and exclusive remedy for such delays.
- b) In no event will adverse weather be considered to be a cause of delay beyond the Contractor's or its Subcontractors' control or not reasonably foreseeable by them at the time this Contract was entered into.

7. ASSESSMENTS AND DAMAGES FOR LATE COMPLETION

7.1 Late Completion

- a) For the purposes of this General Condition, "period of delay" means the number of days commencing on the Completion Date fixed by the Articles of Agreement and ending on the day immediately preceding the day on which the certificate of Substantial Performance is issued but does not include any day within a period of extension granted pursuant to GC 9.1 and 6.2, or any other day on which, in the opinion of the City Representative, completion of the Work was delayed for reasons beyond the control of the Contractor.

8. CHANGE ORDERS

8.1 Changes in the Work

- a) Without invalidating this Contract, the City may, through the City Representative, direct in writing the Contractor to make changes in the Work by adding to, deleting from or revising the Work.
- b) When no Change Order has been issued by the City Representative, and the Contractor claims that any of the Work being performed or proposed constitutes a change in the Work entitling the Contractor to an Adjustment, the Contractor may make a Claim therefore in accordance with GC 9.1.
- c) Changes in the Work directed by the City shall not be initiated, and shall not be carried out by the Contractor, without the prior written authorization of the City through the City Representative.
- d) Upon receipt of a Change Order from the City Representative, the Contractor shall promptly proceed with the Work involved under the applicable provisions of the Contract Documents, except as specifically provided in the Change Order.

- e) The City Representative may in writing direct the Contractor to proceed with the Change notwithstanding that a Change Order has not been prepared or agreed at the time of such direction, and upon receipt of such direction the Contractor shall promptly proceed with the Work as aforesaid. If the parties fail to agree upon the price for such Change, the price therefor shall be as set out in GC 8.2(f) or (i), as applicable.
- f) If notice of any change in the Work is required by the provisions of any bond to be given to a surety, the Contractor will be responsible for giving such notice, and the amount of each applicable bond shall be adjusted accordingly. For the purposes of this provision, the Contractor will be considered to be the surety's agent.

8.2 Valuation of Changes

- a) When a change results in a decrease in the Work, the Contract Price shall be decreased by an amount to be determined by the City Representative, with such decrease valued in the same manner as if it were an increase.
- b) When a change causes an increase in the Work, the Contract Price shall be increased in accordance with this provision.
- c) If this Contract specifies unit prices for changes to the Work, and the City Representative concurs in their use on a particular change or portion thereof, then the Contractor shall be paid for such change or portion, a sum determined by applying the unit prices to the actual quantum, as measured by the City Representative, determined after completion of the Change.
- d) Where this Contract specifies force account rates for labour, equipment and materials, and the City Representative concurs in their use on a particular change or portion thereof, then the Contractor shall be paid for such change or portion, a sum determined by applying the force account rates to the number of hours of labour and equipment expended and quantities of materials utilized. The Contractor shall present records of the work done to the City Representative for approval, at the times and in the manner specified by the City Representative.
- e) If there are changes, or portions of changes, for which unit prices or force account rates are not applicable or specified, then the Contractor shall propose to the City Representative a fixed price for such changes or portions. Upon agreement by the City on the amount thereof, the proposed fixed price shall become the sum the Contractor shall be paid for such change or portion.
- f) If the Contractor and the City are unable to agree on a fixed price, then the Contractor shall be reimbursed its costs for performing the changes as directed by the City Representative, consistent with the following:

- i. wages, salaries and travelling expenses of the Contractor's employees while actually engaged on the Work, excluding any and all expenses of head office personnel;
 - ii. workers' compensation assessments, unemployment insurance premiums, pension plan payments and paid holidays;
 - iii. rental cost of machinery and equipment that is used in the performance of the Work, or an allowance for depreciation if owned by the Contractor;
 - iv. operation and maintenance costs for machinery and equipment used in the performance of the Work, other than costs of repairs arising out of defects existing before it was brought on to the Site;
 - v. cost of materials necessary for and incorporated into the Work or consumed in the performance of the Work;
 - vi. cost of premiums for all bonds and insurance;
 - vii. other expenses incurred by the Contractor as approved in advance by the City Representative for the proper performance of the Work;
 - viii. Subcontractor costs calculated in accordance with GC 8.2(f) (i to vii) above; and
 - ix. an allowance for profit and all other expenditures or costs, including overhead, general administration costs, financing and interest charges, and every other cost, charge and expense, in an aggregate amount that is equal to twenty percent of the expenses referred to in GC 8.2(f) (i to vii), and equal to ten percent of the expenses referred to in GC 8.2(f) (viii) above.
- g) Whenever the cost of any Work is to be determined in accordance with GC 8.2(f), the Contractor will establish and maintain records in accordance with GC 3.26.
- h) Pending final determination of cost, amounts not in dispute shall be included in progress payments.
- i) If the method of valuation of any increase cannot be promptly agreed upon, the City Representative shall determine the method of valuation and issue a written authorization for the change setting out the method of valuation.

8.3 Contingency Allowance

- a) The Contract Price includes the contingency allowance, if any, stated in the Contract Documents.

- b) Expenditures under the contingency allowance shall be authorized in the same manner as for a Change Order in accordance with GC 8, and the value shall be determined in accordance with GC 8.2.
- c) The unexpended portion of the contingency allowance shall be credited to, and paid to, the City as a condition of achieving Substantial Performance, unless otherwise agreed to by the City.

9. DISPUTE RESOLUTION

9.1 City Representative's Decision

- a) Where a Claim arises out of, or in connection with this Contract or the performance of the Work, whether during the performance of the Work or after its completion and whether before or after termination of this Contract, the Claim shall, in the first place, be referred in writing to the City Representative in accordance with this provision.
- b) A written notice stating the general nature of the Claim shall be delivered by the party making the Claim to the other party and to the City Representative promptly, and in no event later than seven (7) calendar days after the occurrence of the event giving rise to the Claim. Any Work for which a Claim has been made, shall be kept readily accessible and shall not be covered up without the express permission of the City Representative.
- c) Notice of the extent of the Claim with supporting data shall be delivered within fourteen (14) calendar days after such occurrence. The Contractor shall keep contemporaneous records as may reasonably be necessary to support the Contractor's Claim, which may be inspected by the City Representative, as he deems necessary.
- d) The City Representative shall review the information submitted, consult with the parties and make reasonable efforts to obtain agreement between the City and the Contractor regarding the Claim. The parties agree that, both during and after the performance of the Work, each of them shall use their best efforts to resolve any disputes arising between them by amicable negotiations, and shall provide frank, candid and timely disclosure of all relevant facts, information and documents to facilitate those negotiations. The City Representative may request the parties to refer the matter to more senior levels of management within their organizations, in an effort to resolve the Claim.
- e) Where the City and the Contractor reach an agreement on the Claim, the City Representative will, where appropriate, prepare a Change Order for the City's

approval, which shall be sufficient to effect a change in this Contract, in accordance with the terms of the Change Order and the Contract Documents.

- f) If the City and the Contractor cannot reach an agreement regarding the Claim, the City Representative shall decide the matter and notify the parties in writing of his decision, within fourteen (14) calendar days of the last submission, and in no event later than thirty (30) calendar days following the date of the occurrence giving rise to the Claim. Valuation of Adjustments in the Contract Price shall be determined by the City Representative in accordance with GC 8.2.
- g) Unless this Contract has already been terminated, the Contractor shall, in every case, proceed with the Work with all due diligence and the City and the Contractor shall give effect forthwith to every such decision of the City Representative unless and until the same shall be revised, as hereinafter provided.
- h) Where either party disputes the decision of the City Representative or where the City Representative fails to notify the parties of his decision in accordance with GC 9.1(f) then either party may, within fourteen (14) calendar days, notify the other party of its intention to refer the matter to the Referee in accordance with GC 9.2 or Arbitrator in accordance with GC 9.3, as application. No referral may be made unless such notice is given. Notices shall be copied to the City Representative for information.
- i) If the City Representative has given notice of his decision as to a matter in dispute to the parties and no notice of intention to refer the matter to the Referee has been given by either the City or the Contractor within thirty (30) calendar days, the City Representative's decision shall become final and binding upon the parties.
- j) No act by the claimant shall be construed as a renunciation or waiver of any of its rights or recourses provided the claimant has given the required notices and carried out the instructions specified. The presentation of a Claim shall not be grounds for delay or interruption of the Work.

9.2 Appointment of Referee

- a) If the City and the Contractor agree to appoint a Referee, the City and the Contractor shall name, within thirty (30) calendar days of the parties signing this Contract, a Referee who may be called upon during the performance of, or after the completion of the Work, to settle any Claims or disputes arising under this Contract. Where the Referee appointed in accordance with this provision refuses to act, is incapable of acting or dies, the parties shall name a new Referee at the earliest opportunity. Should the parties be unable to agree on a Referee within the time specified, the City Representative whose decision shall be final, shall name a Referee.

- b) Where either party has disputed a decision of the City Representative in accordance with GC 9.1(h), the Referee shall review the decision of the City Representative and may, if he deems it appropriate, require the parties to supply him with further information or documentation, giving each party an opportunity to respond. The Referee may inspect the Work after giving reasonable notice to each party of the time he intends to do so.
- c) Not later than thirty (30) calendar days after receipt of the last documentary submission, where the matter has not been resolved in accordance with GC 9.2(b), the Referee shall issue his written decision with reasons to the parties.
- d) The costs of retaining the Referee shall be shared equally between the City and the Contractor, unless the Referee directs otherwise. The City may deduct such costs assessed against the Contractor by the Referee, from any amount due and payable by the City to the Contractor under this Contract.

9.3 Appointment of Arbitrator

- a) If the parties agree to appoint a Referee, then within fourteen (14) calendar days after the Referee has rendered his decision, either party may, by written notice to the other party and to the City Representative for information, refer the decision of the Referee to arbitration pursuant to this GC 9.3. If the parties have not agreed to appoint a Referee, then within the fourteen-day period referred to in GC 9.1(h), either party may refer to decision of the City Representative to arbitration pursuant to this 9.3. Upon any such referral, the parties shall appoint a single Arbitrator, for arbitration in accordance with the Arbitration Act, R.S.N.W.T. 1988, c. A-5, as duplicated for Nunavut by s. 29 of the Nunavut Act, subject to the following provisions:
 - i. the Arbitrator shall have the authority to call upon the Referee to give evidence during the arbitration proceedings, including all documentation prepared by the Referee or reviewed by him;
 - ii. the decision of the Arbitrator shall be final and binding upon the parties who covenant that their disputes shall be so decided by arbitration alone and not by recourse to any court by way of action at law;
 - iii. arbitration proceedings may be commenced prior to or after completion of the Work, provided that the obligations of the City, the City Representative and the Contractor shall not be altered by reason of the arbitration being conducted during the progress of the Work;
 - iv. before the arbitration proceeds on the substantive issues, a budget for the proceedings shall be established by the Arbitrator and each party shall deposit, as security for costs, a sum equal to half of such budget with the Arbitrator,

who shall thereupon deposit such funds in an interest bearing trust account with a chartered bank. Subject to the award and payment of costs as hereinafter provided, the balance of the security deposits and interests shall be properly returned to the respective parties; and

- v. the cost of arbitration may be awarded against the parties hereto or against any one of them as the Arbitrator may decide.
- b) If a Claim involves the Work of a Subcontractor, either the City or the Contractor may join such Subcontractor as a party to the arbitration between the City and the Contractor. The Contractor shall include in all its subcontracts specific provision whereby its Subcontractors consent to being joined in an arbitration between the City and the Contractor involving the Work of such Subcontractors. Nothing in this provision nor in the provision of such subcontracts consenting to joinder shall create any claim, right or cause of action in favour of the Subcontractors as against the City or the City Representative, that does not otherwise exist.
- c) If no notice is received within the time limits set out or referred to in GC 9.3(a), the decision of the Referee shall be final and binding on the parties.
- d) The Contractor agrees that it shall join other arbitration proceedings with respect to the Project, as requested in writing by the City.

9.4 Adherence to Provisions

- a) The provisions, including without limitation, procedure and sequences, outlined in GC 9.1 to 9.3 for the resolution of disputes shall be strictly adhered to by both parties.

10. WITHDRAWAL, SUSPENSION AND TERMINATION

10.1 Withdrawal of the Work

- a) After giving the Contractor seven (7) calendar days written notice within which the Contractor may remedy any delay or default specified, the City may, through the City Representative, withdraw the Work from the Contractor where the Contractor is not diligently performing the Work to the satisfaction of the City Representative or has not completed the Work within the time specified in this Contract.
- b) On withdrawal of the Work, the City may:
 - i. take possession of all plant, equipment and materials on the Site and ordered by the Contractor for the Work but not yet delivered to the Site; and
 - ii. complete the Work withdrawn from the Contractor.

- c) Withdrawal of the Work by the City does not terminate this Contract and does not relieve the Contractor of its obligation to complete the remainder of the Work.
- d) The Contract Price will be reduced by the value of the Work withdrawn, as determined by the City Representative. The Contractor shall be liable to the City for all extra costs incurred by the City to complete the Work withdrawn from the Contractor, including all amounts set out in GC 10.3(d) notwithstanding that the Contractor may not be in default hereunder, and the City may deduct such costs from payments owing to the Contractor under this Contract.

10.2 Suspension of the Work

- a) The City may through the City Representative suspend the progress of the Work at any time by giving the Contractor a written notice, which shall include the reason for the suspension.
- b) Where such a suspension results in a delay in the progress of the Work, the rights of the parties shall be determined in accordance with GC 6.2(a)(i), (ii) or (iii) as applicable, and shall be based on the reason for the suspension.
- c) During the period of suspension, the Contractor shall protect, preserve and maintain the Work in a manner satisfactory to the City and shall not remove any part of the plant, equipment and materials from the Site without the prior written consent of the City.
- d) Following the suspension, the Construction Schedule shall be revised by the Contractor, for approval by the City, and the Work shall be completed as provided in the revised schedule.
- e) Where the Work or any part thereof is suspended on the written instructions of the City and if permission to resume Work is not given by the City within a period of thirty (30) calendar days from the date of suspension, the Contractor may request permission from the City to proceed with the Work. If the City does not grant permission within fourteen (14) calendar days' receipt of the Contractor's written request, the Contractor may elect to treat the suspension, where it affects only part of the Work, as an omission of such Work by giving a further notice to the City to that effect or, where it affects the whole of the Work, treat this Contract as having been cancelled by the City, in accordance with GC 10.4.

10.3 Termination by City

- a) Without limitation, any or all of the following actions by or circumstances relating to the Contractor shall constitute default on the part of the Contractor:

- i. committing or threatening to commit any act of insolvency or bankruptcy, voluntary or otherwise;
 - ii. having a receiver appointed on account of insolvency or in respect of any property;
 - iii. making a general assignment for the benefit of creditors;
 - iv. failing to comply with or persistently disregarding statutes, regulations, bylaws or directives of competent authorities relating to the Work;
 - v. failing to comply with any requests, instruction or direction of the City Representative;
 - vi. failing to pay accounts relating to the Work as they come due;
 - vii. failing to prosecute the Work with skill and diligence;
 - viii. assigning or subletting this Contract or any portion thereof without the required consent from the City;
 - ix. failing or refusing to correct defective or deficient Work; and
 - x. being otherwise in default in carrying out any of its obligations under this Contract, whether such default is similar or dissimilar in nature to the causes listed previously.
- b) The Contractor shall immediately advise the City in writing of any default listed in GC 10.3(a)
- c) If the Contractor is in default under this Contract, the City shall be entitled to any or all of the following:
- i. take possession of all Work in progress, materials and construction equipment at the Site, at no additional charge for the retention or use of the construction equipment;
 - ii. eject and exclude from the Site all personnel of the Contractor and any Subcontractor;
 - iii. terminate the City's utilization of the Contractor to perform the Work;
 - iv. finish the Work by whatever means the City may deem appropriate under the circumstances; and

- v. withhold any further payments to the Contractor until the Contractor's liability to the City is ascertained.
- d) The Contractor shall be liable to the City for:
 - i. the extra expense of finishing the Work, including compensation to the City for additional engineering, managerial and administrative services;
 - ii. the cost of correcting deficiencies in that portion of the Work performed by the Contractor; and
 - iii. all other loss, damage and expense occasioned to the City by reason of the Contractor's default,and the City may deduct such amounts from payments owing to the Contractor under this Contract.
- e) Any action by the City under this GC 10.3 shall be without prejudice to the City's other rights or remedies under any security held by the City for performance of this Contract by the Contractor.

10.4 Contract Cancellation

- a) The City shall have the right which may be exercised from time to time, with or without cause, and on fourteen (14) calendar days' written notice to the Contractor, to cancel any uncompleted or unperformed portion of the Work. In the event of such cancellation, the Contractor shall be entitled to the following:
 - i. reimbursement at this Contract rate for all items completed and delivered;
 - ii. reimbursement for the costs to the Contractor for Work in progress and expenses incurred in the course of the Work, plus a reasonable return on such costs and expenses; and
 - iii. reimbursement for costs and expenses directly caused by the cancellation.
- b) Title to all Work for which reimbursement is made shall vest in the City.
- c) The City shall not be liable to the Contractor for indirect loss, consequential loss, loss of business opportunity or loss of anticipated profit on the cancelled portion or portions of the Work.
- d) This section shall not apply to situations in which the City is entitled to terminate this Contract by reason of default by the Contractor.

10.5 Termination by Contractor

- a) If the City should be adjudged bankrupt, or makes a general assignment for the benefit of creditors because of the City's insolvency, or if a receiver is appointed because of the City's insolvency, the Contractor may, without prejudice to any other right or remedy the Contractor may have, by giving the City or receiver or trustee in bankruptcy notice in writing, terminate this Contract.
- b) If the Work should be stopped or otherwise delayed for a period of thirty (30) calendar days or more under an order of a court or other public authority and providing that such order was not issued as the result of an act or fault of the Contractor or of anyone directly or indirectly employed or engaged by the Contractor, the Contractor may, without prejudice to any other right or remedy the Contractor may have, by giving the City notice in writing, terminate this Contract.
- c) If the Contractor terminates this Contract under the conditions set out above, the Contractor shall be entitled to be paid for all work performed including reasonable profit, for loss sustained upon products and construction machinery and equipment, and such other damages as the Contractor may have sustained as a result of the termination of this Contract.

11. BONDS AND WARRANTY

11.1 Obligations to Provide Contract Security

- a) The Contractor shall promptly provide to the City the surety bonds called for in the Contract Documents, not later than ten (10) business days following receipt by the Contractor of the letter of acceptance.
- b) Such bonds shall be issued by a duly licensed surety company authorized to transact the business of suretyship in Nunavut and shall be maintained in good standing until the fulfillment of this Contract.
- c) Prior to or at the time of making a Claim under such bonds, the City shall send written notification to the Contractor, stating the nature of the default for which a Claim is being made.

11.2 Prescription of Acceptable Contract Security

- a) The Contractor shall deliver to the City:
 - i. a performance bond and a labour and material payment bond each in an amount that is equal to and not less than fifty percent of the Contract Price referred to in the Articles of Agreement; or

- ii. a security deposit in an amount that is equal to ten percent of the Contract Price referred to in the Articles of Agreement.
- b) The performance bond and the labour and material payment bond referred to in GC 11.2(a)(i) shall be in a form as approved by the Federal Treasury Board (Federal Contracts).
- c) A security deposit referred to in GC 11.2(a)(ii) shall be in a form of:
 - i. an irrevocable letter of credit in a form acceptable to the City and from a bank and branch acceptable to the City; or
 - ii. a certified cheque or bank draft from a bank acceptable to the City and made payable to the City.
- d) Should the Contractor's irrevocable letter of credit be scheduled to expire prior to the Completion Date set out in the Articles of Agreement, the City may, at any time within the fourteen (14) calendar days prior to the expiry date, call upon and draw down the irrevocable letter of credit, unless the Contractor presents a renewal thereof with an expiry date beyond the anticipated date for Final Completion, as determined by the City Representative.

11.3 Return of Security Deposit

- a) Following issuance of the certificate of Substantial Performance, the City may, in its absolute discretion, release all or part of the security deposit referred to herein.
- b) Following issuance of the certificate of Final Completion, the Contractor shall, subject to the terms of this Contract, be entitled to the remainder of any security deposit.
- c) Interest shall not be paid on security deposits.

11.4 Warranty

- a) The Contractor warrants and guarantees that the Work is and shall be free from all defects or deficiencies in, or arising from, materials or workmanship in any part of the Work for the period of one year from the date of Substantial Performance of the Work, as certified by the City Representative, or such longer period as may be specified in the Contract Documents for certain products or Work.
- b) The Contractor shall promptly correct, at its own expense, defects or deficiencies in the Work which appear prior to and during the warranty described in GC 11.4(a). The Contractor shall correct and pay for all damages resulting from corrections made under this provision.

- c) Work performed to correct defects or deficiencies shall be warranted and guaranteed to be free from defects or deficiencies, on the same basis as the original Work, for a period of one year from the day said work was completed.
- d) The City or the City Representative shall promptly give the Contractor written notice of observed defects and deficiencies.
- e) If any defects or deficiencies in the Work appear at any time prior to the end of the warranty period, the City Representative may instruct the Contractor to search for the cause thereof. If such defect or deficiency is one for which the Contractor is liable, the cost of the Work carried out in searching shall be at the Contractor's expense, and it shall in such case remedy such defect or deficiency at its own cost; otherwise it shall be at the City's expense.
- f) In an emergency or to prevent an emergency or if the Contractor neglects for any reason to correct defects or deficiencies within a reasonable time, the City may perform the Work or direct another party, on the City's behalf, to do the Work. All costs associated with the correction of such defects or deficiencies shall be paid for by the Contractor and the City may deduct such costs from amounts owing to the Contractor.

12. INDEMNIFICATION AND INSURANCE

12.1 Indemnification by Contractor

- a) The Contractor shall defend, indemnify and save harmless the City and the City Representative, their agents and employees from and against all claims, demands, losses, costs, damages, actions, suits, or proceedings arising out of or attributable to the Contractor's performance of the Work, or by reason of any matter or thing done, permitted or omitted to be done, by the Contractor, its Subcontractors, its Suppliers or their agents or employees, whether occasioned by negligence or otherwise. Such indemnity shall survive completion or termination of this Contract.
- b) Nothing contained in the Contract Documents or any approval, express or implied, of the City Representative or City shall relieve the Contractor of any liability for latent defects or any liability which may be imposed by law.

12.2 Indemnification by City

The City shall, subject to any law that affects the City's rights, powers, privileges or obligations, indemnify and save the Contractor harmless from and against all claims, demands, losses, costs, damages, actions, suits or proceedings arising out of his activities under this Contract that are directly attributable to:

- a) lack of or a defect in the City's title to the Site whether real or alleged; or
- b) an infringement or an alleged infringement by the Contractor of any patent of invention or any other kind of intellectual property occurring while the Contractor was performing any act for the purposes of this Contract employing a model, plan or design or anything related to the Work that was supplied by the City to the Contractor.

12.3 Policies of Insurance

Without restricting the generality of GC 12.1, the Contractor shall provide and maintain the insurance coverages listed in this provision. Unless otherwise stipulated, the duration of each insurance policy shall be from the date of commencement of the Work until the date of issuance of the certificate of Final Completion. Prior to commencement of the Work, the Contractor shall provide the City with confirmation of coverage in the format attached as Appendix A to these General Conditions, and, if required, a certified true copy of the policies certified by an authorized representative of the Insurer. The Contractor shall ensure that any Subcontractors comply with the insurance requirements outlined in this GC 12. The insurance coverages required are as follows:

a) General Liability Insurance

Contractor's comprehensive general or commercial general liability insurance shall have limits of not less than five million dollars (\$5,000,000) per occurrence with a property damage deductible not exceeding two thousand five hundred dollars (\$2,500). The insurance provided shall be no less broad than the insurance provided by IBC Form 2100 or its equivalent replacement and shall include a standard non-owned automobile policy including a blanket contractual liability endorsement. To achieve the required limit, umbrella or excess liability insurance may be used. All liability coverage shall be maintained for completed operations hazards from the date of Final Completion of the Work, as set out in the certificate of Final Completion, on an ongoing basis for a period of not less than six years from the date of such certificate. The City shall be added as an additional insured with respect to liability arising out of the operations of the named insured. The policy shall be endorsed to provide the City with not less than thirty (30) calendar days' written notice in advance of any cancellation, change or amendment restricting coverage.

b) Automobile Liability Insurance

Automobile liability insurance in respect of licensed vehicles shall have limits of not less than five million dollars (\$5,000,000) inclusive per occurrence for bodily injury, death, and damage to property and covering all licensed vehicles owned or leased by the Contractor, endorsed to provide the City with not less than fifteen (15) calendar days' written notice in advance of any cancellation, change or amendment restricting coverage.

c) Property and Boiler and Machinery Insurance

- i. “All risks” property insurance shall be in the joint names of the Contractor, the City and the City Representative, insuring not less than the sum of the amount of the Contract Price and the full value of all labour, tools, equipment and materials that are to be provided by the City for incorporation into the Work, with a deductible not exceeding two thousand five hundred dollars (\$2,500). The insurance provided shall be no less broad than the insurance provided by IBC Form 4042 or its equivalent replacement. The policy will contain a waiver of rights of subrogation against all those insured by the policy. Such coverage shall be maintained continuously until the date the certificate of Final Completion is issued or an earlier date specified by the City;
- ii. the policy will allow for partial or total use or occupancy of the Work. If because of such use or occupancy the Contractor is unable to provide coverage, the Contractor shall notify the City in writing prior to such use pay for property and, if necessary, boiler insurance insuring the full value of the Work as in (i) above, including coverage for such use or occupancy and shall provide the Contractor with proof of such insurance. The Contractor shall refund to the City the unearned premium applicable to the Contractor’s policy upon termination of coverage;
- iii. where, due to the nature of the Work, the full insurable value of the Work is substantially less than the Contract Price, the City may, at its sole discretion, reduce the amount of insurance required or waive the course of construction insurance requirement;
- iv. where such risks exist, the Contractor shall provide boiler and machinery insurance insuring not less than the replacement value of boilers, pressure vessels and other objects insurable under a boiler & machinery policy and forming part of the Work;
- v. the policies shall provide that, in the event of a loss or damage, payment shall be made to the City and the Contractor as their respective interests may appear. The Contractor shall act on behalf of the City for the purpose of claiming the amount of loss or damage from the Insurers. When the extent of the loss or damage is determined, the Contractor shall proceed to restore the Work. Loss or damage shall not affect the rights and obligations of either party under this Contract except that the Contractor shall be entitled to such reasonable extension of Contract Time relative to the extent of the loss or damage in accordance with the terms of this Contract; and
- vi. the Contractor shall be responsible for deductible amounts under the policies except where such amounts may be excluded from the Contractor’s responsibility in accordance with the Contract documents.

d) Aircraft and Watercraft Liability Insurance

Where such risks exist, the Contractor shall obtain aircraft and watercraft liability insurance with respect to owned or non-owned aircraft and watercraft if used directly or indirectly in the performance of the Work, including use of additional premises, and shall have limits of not less than two million dollars (\$2,000,000) inclusive per occurrence for bodily injury, death and damage to property including loss of use thereof, and limits of not less than two million dollars for aircraft passenger hazard. Such insurance shall be in a form acceptable to the City. The policies shall be endorsed to provide the City with not less than fifteen (15) calendar days' written notice in advance of any cancellation, change or amendment restricting coverage.

e) Contractor's Equipment Insurance

The Contractor shall give proof of insurance in a form acceptable to the City of "all risks" Contractor's equipment insurance covering construction machinery and equipment used by the Contractor for the performance of the Work, including boiler insurance on temporary boilers and pressure vessels. The insurance shall be in a form acceptable to the City and shall not allow subrogation claims by the insurer against the City. The policies shall be endorsed to provide the City with not less than fifteen (15) calendar days' written notice in advance of cancellation, change or amendment restricting coverage.

f) Other Insurance

The Contractor shall provide, maintain and pay for any additional insurance required to be provided by law, or which the Contractor considers necessary to cover risks not otherwise covered by insurance specified in the Contract Documents.

12.4 Insurance General

- a) All required insurance policies shall be with insurers licensed to underwrite insurance in Nunavut and signed by representatives licensed to do so for insurance in Nunavut.
- b) The Contractor shall require and ensure that its Subcontractors maintain liability insurance comparable to that required above.
- c) If the Contractor fails to provide or maintain insurance as required by this General Condition or elsewhere in the Contract Documents, then the City shall have the right to provide and maintain such insurance and give evidence to the Contractor and the City Representative. The Contractor shall pay the cost thereof to the City on demand or the City may deduct the costs from monies which are due or may become due to the Contractor.

- d) Where an insurer fails or refuses to pay any claims under an insurance policy covering the activities of the Contractor or a Subcontractor relating to or arising out of the Work, the Contractor shall not be released from any liability arising under this Contract.

13. LOCAL AND INUIT INVOLVEMENT

13.1 Requirements for Inuit, Local and Nunavut Content

- a) The Contractor shall, in the performance of the Work, employ Inuit, Local and Nunavut workers and use Inuit, Local and Nunavut content to the greatest extent possible and at a minimum, no less than the amounts tendered by the Contractor in Appendix J-2 “Substantiation of Bid Adjustment” of the tender. Workers shall meet all levels of proficiency, qualification and expertise as dictated by Applicable Laws and/or as defined in the Contract Documents.
- b) The Contractor shall provide to the City Representative a schedule indicating the anticipated total monthly value of all Inuit, Local and Nunavut content and labour to be expended in the execution of the Work. This schedule shall provide the benchmark for ensuring compliance by the Contractor with the requirements for the use of Inuit, Local and Nunavut content during the performance of the Work.

13.2 Requirement for Community Meetings

- a) If required under this RFT (if the NNI Policy applies), The Contractor shall arrange meetings on a monthly basis, or other basis as may be mutually agreed by the parties to this contract, to monitor the use of Inuit, Local and Nunavut labour and Inuit, Local and Nunavut content. The Contractor shall give the City five (5) business days’ notice of all meetings called under GC 13.2. The Contractor shall take reasonable steps to ensure that these meetings include the following representatives:
 - i. a community representative who has been designated to speak on behalf of the community (if available);
 - ii. a community manpower representative (if available);
 - iii. the Contractor; and
 - iv. the City Representative.
- b) In addition to the community meetings contemplated in GC 13.2(a), the Contractor shall arrange a community meeting prior to the start of the Work which shall be arranged on the same terms as indicated in GC 13.2(a) and at that meeting shall:

- i. provide a schedule referred to in GC 13.1(b) above to the community representative;
 - ii. request from the community manpower representative or from the City if no community manpower representative has been delegated, a list of workers available in the community; and
 - iii. identify specific types of workers required during the project such as plumbers, painters or electricians and how many of those workers are required and when they are required and based on information received in accordance with GC 13.2(b)(ii) maintain a list of community manpower.
- c) At the community meetings contemplated in GC 13.2(a), the Contractor shall:
 - i. provide employment reports identifying workers used during the past month (to substantiate information provided on Appendix J-2 “Substantiation of Bid Adjustment”);
 - ii. provide a schedule referred to in GC 13.2(b)(i), or such schedule as amended, if necessary; and
 - iii. provide a consolidated report at the time of Substantial Performance, which shall confirm the total amount of Inuit, Local and Nunavut content used. This report will identify Inuit, Local and Nunavut payroll separately. This consolidated report shall be a condition precedent to the release of payment.
- d) The City shall attend all community meetings organized by the Contractor in accordance with this GC 13.2 and when requested by the Contractor shall identify and contact potential community workers who may be available to be employed on the Work, identify alternate workers if those workers initially identified are not available to work, and assist in confirming the residency of local workers.

13.3 Monitoring the Level of Inuit, Local and Nunavut Labour

- a) The Contractor is responsible to ensure that every worker identified as Local or Nunavut meets the qualifying requirements, which are, for Nunavut, being ordinarily resident in Nunavut for the past 12 months, and for Local being a Nunavut resident ordinarily resident in the subject community for the past 4 months. The Contractor may be required to provide proof of residency of workers at any time throughout the course of performing the Work.
- b) Reasonable proof of Nunavut and Local residency shall be any of the following:

- i. being listed on the Nunavut Tunggavik Inc. (NTI) enrolment list and provision of a physical address where residing;
 - ii. if the last 12 months have been spent as ordinarily resident in Nunavut and a physical address of such residence has been provided, then
 - A. provides a valid Nunavut Health Care Card effective at least 9 months prior to start date of employment on the Work; and/or
 - B. provides another accepted proof of residency such as: a Nunavut General Hunting License, a Nunavut Driver's Licence, a lease or rental receipt, or a certified Schedule T222 Income Tax return from the previous year or proof that Income Tax was paid in the Nunavut during the previous tax year; or
 - iii. is included on a list of approved Local or Nunavut residents verified by the municipality of their residence.
- c) The Contractor is responsible to ensure that every worker identified as Inuit is on the NTI Inuit enrolment list or would qualify to be on the list.
- d) If requested by the City to do so, the Contractor shall obtain a signed consent form from workers which verifies their residency and permits the City to obtain any and all information required to support the worker's claim of residency and/or Inuit status. A worker does not need to comply with the requirements of this clause if the worker is on the NTI Inuit enrolment list.

13.4 Requirement for Using Hotels or Bed and Breakfast

- a) If performance of the Work is undertaken where a Commercial Room and Board Facility (as defined below) exists within a Community (as defined below), the Tenderer is required to use a Commercial Room and Board Facility to house and feed all workers directly employed by the Contractor, any Subcontractor or agent or any other business working on the Project. The Contractor, Subcontractor, agent or other business are not required to use Commercial Room and Board Facilities for workers who are Local Residents.
- b) In this Contract:
 - i. "Commercial Room and Board Facility" means a Hotel or a Bed and Breakfast (Tourist Home) that holds a Tourist Establishment Licence issued by the Government of Nunavut under the *Travel and Tourism Act*.

- ii. “Community” means a community in which the Work (as defined in the Contract) is being performed and includes the entire area within a 20- kilometer radius of that community.
- c) The Commercial Room and Board Facility must:
 - i. meet the applicable requirements under the *Public Health Act*, and of the *Eating or Drinking Place Regulations*; and
 - ii. meet all applicable requirements of the *Public Health Act* the *Fire Prevention Act* and applicable regulations thereunder, and any other applicable Government of Nunavut or federal legislation.

14. TRANSPORTATION OF MATERIALS

14.1 Marine Transport Resources

- a) Whenever marine (water) transport is to be utilized, the Contractor may use, and space may be booked directly with the following carrier:
 - i. Nunavut Sealink and Supply (NSSI),
By ships loading at the Montreal area Port of Ste-Catherine
 - ii. Nunavut Eastern Arctic Shipping (NEAS)
By ships loading at the Port of Valleyfield, Salaberry-de-Valleyfield
- b) The annual shipping rates offered by marine carriers are dependent upon anticipated cargo quantities including the materials for construction projects; therefore, Contractors may tender using the published sailing schedules and rates available from the above marine carriers.
- c) In exceptional or extraordinary circumstances, where the specified marine carrier’s sailing schedule is in substantial conflict with the Construction Schedule, the City will review the circumstances, taking into account the adverse impact on the project and the specified marine carrier’s interests, and the City may provide authorization to allow the relevant cargo to be shipped with a marine carrier other than the specified marine carrier, depending upon the circumstances; and such authorization must be writing.
- d) If a Contractor uses a marine carrier other than the City contracted marine carrier without the City’s written authorization to do so, the Contractor shall be responsible for extra freight cost, administrative costs or any other costs, incurred by the City which result directly or indirectly from the Contractor’s failure to use the City specified marine carrier as set out in this GC 14. The Contractor shall also be responsible to refund to the City any monies saved by the Contractor by using a marine carrier other than the specified marine carrier as set out in this GC 14.



CONSTRUCTION SERVICES
PART III – GENERAL CONDITIONS



END OF SECTION



CONSTRUCTION SERVICES
PART IV – SUPPLEMENTARY CONDITIONS



Amend the General Conditions as follows:

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Part 1 General

1.1 GENERAL CONDITIONS

- .1 All sections of Division 1, as applicable, shall form part of this summary and scope of work and of the contract.
- .2 Each Contractor shall examine and become familiar with the work, specifications and drawings.
- .3 This Summary and Scope of Work shall be read in conjunction with and form part of this Contract, and is intended to indicate the extent of the work and responsibilities to be undertaken by this Contractor.

1.2 WORK COVERED BY CONTRACT DOCUMENTS

- .1 The area of work shall include:
 - .1 North Berm.
 - .2 Center Berm
 - .3 South Berm
 - .4 Concrete dam and Spillway
- .2 Work of this Contract includes the following items of work:
 - .1 Crack injection work within localized areas on the top and down stream face of the concrete dam. The Contractor shall carry a 15 meter allowance for this work which shall be designated by the Consultant at the time of work.
 - .2 Localized concrete repair on the down stream face of the concrete dam. The Contractor shall carry an allowance of 2 square meters to be designated by the Consultant at the time of work.
 - .3 Installation of eight (8) survey monuments within the earthen berms and concrete dam. Survey monuments to be installed within the earthen berms will also include the installation of steel piles set in concrete.
 - .4 Installation of eleven (11) sensor data monitoring stations within the North, Center and South berms, and the concrete dam. This work shall include the purchase and installation of the data logger equipment, cabling and piezometers to be installed within the monitoring stations.
 - .5 Installation of one (1) water depth sensor and housing on the upstream face of the concrete dam.
- .3 The Contractor shall prohibit or limit access to banks or areas adjacent to waterbody, to the extent necessary to protect the structural integrity of berms, banks and shorelines.
- .4 The Contractor shall supply, install and maintain all required sediment and erosion controls necessary to mitigate erosion of exposed soils to adjacent waterbody including erosion control fencing and fabrics. The Contractor shall reference the requirements and recommendations outlined within the Fisheries and Oceans Canada (DFO), Mitigation Guide for the Protection of Fishes and Fish Habitat.

- .5 The berms and concrete dam are located at the south / west corner of the reservoir.
- .6 The Contractor shall include all costs related to compliance with COVID-19 protocols and procedures necessary to complete the work of this contract.
- .7 Submit product shop drawings, MSDS and data sheets as outlined in Section 01 33 00 - Submittal Procedures.
- .8 The Contractor's bid amount shall include all costs and fees necessary to supply, install and maintain temporary protection on site. The Contractor shall supply and install all required temporary safety measures and systems including:
 - .1 Temporary guard rails and barriers.
 - .2 Temporary fencing, minimum 8' high, around the perimeter of the set up and storage areas as required by the City of Iqaluit.
 - .3 Barriers and signage, in all three official languages of Nunavut.
- .9 Provide all necessary vertical hoisting / lift equipment and cranes required to facilitate the work of this Contract.
- .10 Provide all necessary temporary power required to facilitate the work of this Contract.
- .11 The Contractor's bid amount shall include all costs and fees related to and associated with the transportation from site and disposal of all construction waste and debris at a site authorized to receive construction waste.

1.3 COOPERATION AND COORDINATION ON SITE

- .1 The City of Iqaluit has two additional projects that may be occurring at the same time that work of this contract is being completed. This work includes:
 - .1 Installation of power poles and electrical cabling along the down stream face of the dam and earthen berms. This work shall be completed by QEC.
 - .2 Removal and replacement of sealant material within the concrete dam. This work is scheduled to be completed by Tower Construction during the month of June 2022.
- .2 The Contractor awarded the work of this contract shall be required to coordinate their activities on site with the work of the other contractors.

1.4 CONTRACT METHOD

- .1 See Instructions to Tenderers and Tender Form

1.5 CONTRACTOR USE OF SITE

- .1 Unrestricted use of site until Total Completion of Work.
- .2 Co-ordinate use of site under direction of City of Iqaluit and the Consultant.

- .3 Remove or alter existing work to prevent injury or damage to portions of existing work which are to remain.
- .4 Repair or replace portions of existing work which have been altered during construction operations to match existing or adjoining work, as directed by Consultant.
- .5 At completion of operations, condition of existing work return the site to equal or better than that which existed before new work started.

1.6 DOCUMENTS REQUIRED

- .1 Maintain at job site, one copy each document as follows:
 - .1 Contract Drawings.
 - .2 Specifications.
 - .3 Addenda.
 - .4 Change Orders.
 - .5 Other Modifications to Contract.
 - .6 Copy of Approved Work Schedule.
 - .7 Health and Safety Plan and Other Safety Related Documents.
 - .8 Other documents as specified.
 - .9 Product data and MSDS sheets.
 - .10 Shop drawings.
- .2 Consultant may furnish additional drawings to clarify work. Such documents become part of Contract Documents.

1.7 COVID-19

- .1 All members of the Contractors work force working on site must comply with all COVID-19 prevention and control measures in force at the time of work. This shall include measures, controls, directives and policies from:
 - .1 Nunavut Department of Health.
 - .2 Orders or Directives issued under the authority of the Chief Public Health Officer.
 - .3 Other authorities having jurisdiction.
- .2 The Contractor shall maintain a list of workers, including sub-trades employed on site each day and have it available for reference by the City of Iqaluit if requested.
- .3 The Contractor should note that COVID-19 policies, procedures and measures may change prior to the start of work and or throughout the duration of the work. The Contractor shall include for this requirement in their bid submission.
- .4 The Contractor shall include all costs to supply, implement and maintain personal protection equipment (PPE) and COVID-19 control measures on site within the area of work.

- .5 The Contractor shall supply their staff with all required PPE required to comply with COVID-19 measures in place. The cost of PPE required for each member of the work force shall be included in their bid submission.
- .6 The City of Iqaluit reserves the right to delay the start of work and/or suspend work currently underway due to a declared outbreak. The Contractor shall include for this requirement in their bid submission.
- .7 All of the Contractors staff working or visiting the site shall be subject to:
 - .1 Anyone showing symptoms of COVID-19 must not be allowed to work on site and shall be advised to go home immediately, to self-isolate, and be encouraged to be tested. If the affected member has a positive test for COVID-19, the infected member shall immediately notify their supervisor/manager or occupational health and safety representative. The Contractor shall contact and advise the City of Iqaluit Project Manager and Consultant that a member of their work force has failed a screening test.
 - .2 Additional measures or policies in place at the time of work.

1.8 OWNER OCCUPANCY

- .1 The City of Iqaluit will continue to operate the site during the full duration of the Contract. The Contractor shall co-operate and coordinate operations on site with the City of Iqaluit and their designated representatives.
- .2 The Contractor shall be required to accommodate the Work of this project and the City of Iqaluit's scheduling requirements, to minimize conflict, facilitate efficient and safe operation of the facility and access by members of the public.
- .3 The Contractor shall ensure safe passage into and from the area of work is maintained at all times.
- .4 The Contractor must comply with the City of Iqaluit's Security, Health and Safety policies and procedures.
- .5 Work within this project must be scheduled and co-ordinated with the City of Iqaluit and facility operators.

1.9 EXISTING SERVICES

- .1 All utilities and services shall be protected against damage or interruption. Notify, the Owner and utility companies of intended interruption of services and obtain all required permits and authorizations prior to undertaking the work.
- .2 Where Work involves breaking into or connecting to existing services, give the Owner 48 hours' notice for necessary interruption of mechanical or electrical service throughout course of work. Minimized duration of interruptions. Carry out work at times as directed by the Owner and the authorities having jurisdiction. Complete with a minimum impact on the operations of the dam and the supply of potable water to the City of Iqaluit.

- .3 The Contractor shall maintain existing services in occupied areas unless alternative arrangements have been made with and approved by the Owner.
- .4 Make good any alterations or changes made to the existing services.

1.10 MINIMUM STANDARDS

- .1 Execute work to meet or exceed:
 - .1 National Building Code (Latest Edition), including all amendments up to project date.
 - .2 National Fire Code (Latest Edition), including all amendments up to project date.
 - .3 Canadian Construction Safety Code (Latest Edition), including all amendments up to project date.
 - .4 Bylaws, rules, acts and regulations of authorities having jurisdiction.
- .2 All references to codes and standards within the design documents shall be understood as meaning the most current with amendments.

1.11 OVERTIME

- .1 Overtime costs shall be included in the Stipulated Prices provided in the bid amount. No extra costs will be paid by the Owner for work which must be performed outside normal working hours.
- .2 Hours of work: 7:00 a.m. - 5:00 p.m, Monday to Friday.
- .3 Work outside of the specified hours of work must be approved by the City. Contractor to provide 48 hour notice to the City and Consultant.

1.12 EXAMINATION OF PLANS, SPECIFICATIONS, AND SITE OF WORK

- .1 Bidders shall carefully examine and study the contract specifications, drawings and the site of the work in order to understand and identify conditions affecting the contract, the detailed requirements of the construction and extent of work involved.
- .2 No tenderer may claim at any time after submission of a tender that there was any misunderstanding of the terms and conditions of the contract relating to the site conditions. Submission of a bid shall serve as confirmation by the Contractor that all conditions, terms and items of the Work were understood.
- .3 The Contractor shall verify all dimensions and the existing sub-assemblies prior to preparation of work, generation of shop drawings, fabrication and start of work.
- .4 Dimensions shown on the design drawings were taken from the as-built documentation made available to the Consultant, and on site observations. The drawings are intended to convey the scope and magnitude of work, absolute accuracy of dimensions is not guaranteed. No claim for extra payment on account of differences between actual and estimate dimensions will be allowed.
- .5 Large scale details shall govern over small scale details.

- .6 Specifications shall govern over Drawings.
- .7 The specifications for the work shall be considered as an integral part of the drawings which accompany them, and neither the drawings nor the specifications shall be considered alone. Any item which is omitted from one but which is mentioned or reasonably implied in the other, shall be considered as properly and sufficiently specified, and must be therefore supplied and installed. All items not specifically mentioned in the drawings or specifications, but which are necessary to make and or complete the Work, shall be included in the Contractor's bid amount.
- .8 Where details shown on the drawing or in the specification are not in accordance with manufacturer's requirement, Contractor to notify Consultant and for clarification.
- .9 When General Requirement clauses are repeated in the specifications, it shall be understood as drawing particular attention thereto or as further qualification thereof and not to be assumed as waiving or omitting any other clauses therein.

1.13 TAXES

- .1 Pay applicable Federal, Territorial and Municipal taxes.

1.14 INSPECTION, FEES, CERTIFICATES AND PERMITS

- .1 Provide authorities having jurisdiction with information requested.
- .2 The contractor shall obtain and pay fees for all required certificates and permits necessary to complete the Work.
- .3 Contractor shall obtain and pay for all required 3rd party inspections required by jurisdictions having authority.
- .4 Furnish inspections, certificates and permits when requested.

1.15 WORKERS' SAFETY & COMPENSATION COMMISSION (WSCC)

- .1 The contractor shall, at the time of entering into any contract with the City of Iqaluit, at such intervals as required to demonstrate good standing, and at substantial performance, provide a valid clearance certificate from the Workers' Safety and Compensation Commission (WSCC).
- .2 The bidder whose tender has been recommended to the City of Iqaluit for acceptance shall submit a copy of their current WSCC clearance certificate to the City of Iqaluit and Consultant.
- .3 A contractor must meet its registration, reporting and payment obligations throughout the duration of the Work and maintain their account with the Workers' Safety and Compensation Commission in good standing.

1.16 AS-BUILT DRAWINGS AND PROJECT DOCUMENTATION

- .1 The Contractor shall maintain two (2) sets of drawings for purpose of recording changes and deviations to work as-built.
- .2 Maintain these prints and make available to trades so that all changes and deviations may be recorded promptly as they occur. Be responsible for ensuring that such record of all changes is up to date at all times. Upon completion of work, return these drawings complete and in good condition to the Owner and Consultant, so that a record of the changes, location of all services and equipment is documented.
- .3 The Contractor shall provide 3 bound copies of all project documentation. Project documentation shall include:
 - .1 Specifications.
 - .2 Design and As-built drawings.
 - .3 Shop drawings.
 - .4 Product data sheets.
 - .5 Change orders and change directives.
 - .6 Invoices and payment documentation.
 - .7 Inspection reports

1.17 SUBMITTALS

- .1 Submit all documents in accordance with Section 01 33 00 - Submittal Procedures.

1.18 CONTRACT ADMINISTRATION AND ROLE OF THE CONSULTANT

- .1 The Consultant will have authority to act on behalf of the City of Iqaluit, only to the extent provided in the agreement between the Consultant and the City of Iqaluit.
- .2 The Consultant will provide site review and administration of the Contract on behalf of the City of Iqaluit. The Consultant will visit the place of the work at intervals appropriate to the progress of construction to become familiar with the progress and quality of the work, and to determine if Contractor is proceeding in general conformity with the Contract Documents.
- .3 The Consultant will not be responsible for and will not have control, charge or supervision of the Contractor's work force, construction means, methods, techniques, sequence, procedures, or for safety equipment and measures required to undertake and complete the Work.
- .4 The Consultant's interpretations and findings on site will be given in writing to the parties within a reasonable time.
- .5 The Consultant will have the authority to reject work which in the Consultant's opinion does not conform to the requirements of the Contract Documents.
- .6 Whenever the Consultant considers it necessary or advisable, the Consultant will have the authority to require inspection or testing of the work, whether or not such work is fabricated, installed or completed.

- .7 The authority of the Consultant to act, nor any decision either to exercise or not to exercise such authority shall not give rise to any duty or responsibility of the Consultant to the Contractor, Sub-contractors, Suppliers, or their agents, employees, or other persons performing any of the Work.

1.19 CONTRACTOR'S ROLE AND RESPONSIBILITIES

- .1 The Contractor is responsible for the control and applicable of construction safety measures on site and its conformance with the current legislation, acts, and other regulations in effect or required.
- .2 The Contractor shall have total control of the Work and shall effectively direct and supervise the Work to ensure conformity with the Contract Documents. The Contractor shall have a competent and qualified person supervising the work on site at all times.
- .3 The Contractor shall have a competent person for emergency calls after construction hours and during weekends. It shall be the Contractor's responsibility to supply the Owner and Consultant with the name and telephone number of the person to be contacted during these periods.
- .4 The Contractor shall have control over, charge of and be responsible for the acts or omissions of the Contractor's work force, subcontractor's, suppliers, their agents, employees, or any other persons performing portions of the Work therein.
- .5 The Contractor shall be solely responsible for the construction schedule, methods, techniques, sequences, procedures and for coordination and supervision of their sub-trades and all parts of the Work under the Contract.

1.20 COORDINATION AND CO-OPERATION

- .1 Execute work with minimum disturbance to the building operations, occupants, public and normal use of site. Maintain access and exits to the building and site. Where security has been reduced by work of contract, provide temporary means to maintain security.
- .2 The work shall be inspected and tested on behalf of the Owner by the Consultant. The Contractor must keep the Consultant informed when the Contractor is on site and work is being completed.
- .3 A minimum 48 hours noticed shall be given by the Contractor to the Consultant prior to the required inspection unless agreed upon otherwise.
- .4 Any work not accepted by the Consultant shall be immediately corrected by the Contractor to the Consultant's satisfaction. Frequency of the tests and inspections will be determined by the Consultant.
- .5 Work requiring the shutdown of any of existing facility services or equipment on site must be done with prior written approval, and according with the agreed construction schedule, and approved by the Owner. Changes to the approved schedule and equipment and system shutdowns must be approved by the Owner.

1.21 PROTECTION AND SAFETY

- .1 Comply with site security protocols and access requirements.
- .2 Undertake and complete the work in a safe manner that will not endanger the building, equipment on site, the Contractor's work force, and occupants of the building or members of the public. Cease any work or operations that may endanger the health and safety of the Contractor's work force, occupants of the building or members of the public. Do not commence Work until adequate safety measures have been completed.
- .3 Be responsible for the safe completion of the Work and implementation of all required safety measures necessary to protect the building and occupants therein for the duration of the Work, commencing with the Contractor's mobilization on site.
- .4 Protect surfaces and finishes of the structure, services, equipment, vehicles and landscaping within and adjacent to the area of Work. Repair any damage with material and finish to match original.
- .5 Prevent extraneous materials from contaminating air beyond work area, by providing temporary enclosures during demolition work.
- .6 At end of each day's work, leave work in safe, secure and stable condition protected from the elements and access by un-authorized people.
- .7 At end of each day's work or when stoppage of work occurs due to inclement weather, provide protection for completed and incomplete Work. Contractor shall be responsible for inspection and securement of all materials, equipment and building systems at the roof level. Contractor shall inspect the site on a daily basis during periods of severe weather or prolonged work stoppage due to weather or other factors.
- .8 Contractor shall implement measures necessary to prevent vandalism, tampering or ignition of combustible materials such as propane or gas on site. If necessary, remove all combustible materials from site at the end of each work day.

1.22 DELIVERY AND STORAGE

- .1 Store equipment and materials in location designated and approved by the Owner.
- .2 Use designated routes approved by the City of Iqaluit for the delivery and removal of material and debris.
- .3 Safety: Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of asphalt, sealing compounds, primers and sealant materials.
- .4 Store components and materials in accordance with manufacturer's recommendations and protect from elements and damage.
- .5 All materials shall be delivered and stored in their original packaging, bearing the manufacturer's name, related standards and any other specification or reference accepted as standard.

- .6 Protect and store all materials in a dry, well ventilated and weatherproof location. During winter, store materials in a heated location with a +5 C minimum temperature. Remove only as needed for immediate use. Keep materials away from open flame or welding sparks.
- .7 Avoid stockpiling materials in a way which could cause overloading or damage to the assemblies or structure.

1.23 WASTE MANAGEMENT AND DISPOSAL

- .1 Removal and disposal of the designated materials including transportation and disposal of all construction waste and debris at an approved facility authorized to receive construction waste.
- .2 Store garbage and waste containers in location designated by the City to ensure there are out of public view.
- .3 Divert unused building materials and packaging from landfill to recycling facilities.
- .4 Remove from site, transport and dispose of packaging materials at appropriate recycling facilities.
- .5 Handle and dispose of hazardous materials in accordance with the Canadian Environmental Protection Act (CEPA), Transportation of Dangerous Goods Act (TDGA), Federal, Provincial and Municipal regulations or other authorities having jurisdiction therein. Place materials defined as hazardous or toxic waste in designated containers, transport and dispose at an authorized site approved to receive hazardous or toxic waste.
- .6 Ensure emptied containers are sealed and stored safely prior to disposal.
- .7 Unused paint, sealants, and sealing compound materials must not be disposed of into water courses, onto ground or in other location where it will pose health or environmental hazard.
- .8 Prevent debris from blockage of drainage systems and damage to existing mechanical and electrical systems which must remain in operation.
- .9 Do not dispose of waste or volatile materials such as: mineral spirits, oil, petroleum based lubricants, or toxic cleaning solutions into reservoir, watercourses or land features. Ensure proper disposal procedures are maintained throughout the project.
- .10 Do not pump water containing suspended materials into reservoir, watercourses or onto adjacent properties. Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with authorities having jurisdiction.

1.24 FIRE SAFETY REQUIREMENTS

- .1 Comply with requirements of the National Fire Code (latest edition).
- .2 Flammable liquids having a flash point below 110°F, (except when in use as fuel in operating equipment), and other explosives, shall not be brought to, used, or disposed of at the site without permission of the Owner. All such flammable liquids shall be confined

either to safety containers approved by Underwriters Laboratories Inc., or the fuel tanks of operating equipment.

- .3 The Contractor shall keep the site of Work free of waste materials, rubbish and debris. No burning operations shall be performed on site.
- .4 Have at a minimum of five (5) serviceable Size: 13.6 kg (30 lb), 'A-B-C' fire extinguisher in the area of work.
- .5 Fire extinguishers are to be inspected prior to the start of work each day by the Contractor's site supervisor, damaged or discharged fire extinguishers are to be removed from site and replaced immediately and prior to the start of work.

1.25 DEFINITIONS

- .1 The following Definitions shall apply to all Contract Documents.
- .2 Change Directive: A Change Directive is a written instruction prepared by the Consultant and signed by the Owner directing the Contractor to proceed with a change in the Work within the general scope of the Contract Documents prior to the City of Iqaluit and the Contractor agreeing upon adjustments in the contract price and the contract time.
- .3 Change Order: A Change Order is a written amendment to the Contract prepared by the Consultant and signed by the City of Iqaluit and the Contractor stating their agreement upon:
 - .1 A change in the Work;
 - .2 The method of adjustment or the amount of the adjustment in the contract price, if any; and
 - .3 The extent of the adjustment in the contract time, if any.
- .4 The Owner: Corporation of the City of Iqaluit or authorized representative as designated to the Contractor in writing, to act on behalf of the Owner.
- .5 The Owner Representative: The person, agent or representative as designated to the Contractor in writing, authorized to act on behalf of the City of Iqaluit, but does not include the Consultant.
- .6 Consultant: The Consultant is the person or entity engaged by the City of Iqaluit and identified as such in the Agreement. The Consultant is the Engineer or entity licensed to practise in the province of the place of the work. The term Consultant means the Consultant or the Consultant's authorized representative.
- .7 Contract: The Contract is the undertaking by the parties to perform their respective duties, responsibilities and obligations as prescribed in the Contract Documents and represents the entire agreement between the parties.
- .8 Contract Documents: The Contract Documents consist of the drawing and specifications included within the tendered design and amendments agreed upon between the parties.
- .9 Contractor: The Contractor is the person or entity identified as such in the Agreement. The term Contractor means the Contractor or the Contractor's authorized agent or representative.

- .10 Drawings: The Drawings are the graphic and pictorial portions of the Contract Documents, wherever located and whenever issued, showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, and diagrams.
- .11 Owner: The Owner is the Owner. The term Owner means the City of Iqaluit or the City of Iqaluit's authorized representative or agent as designated to the Contractor in writing, but does not include the Consultant.
- .12 Place of the Work: The Place of the Work is the designated site or location of the Work identified in the Contract Documents.
- .13 Project: The Project means the total construction contemplated of which the Work may be the whole or a part.
- .14 Provide: Provide means to supply and install.
- .15 Shop Drawings: Shop Drawings are drawings, diagrams, illustrations, schedules, performance charts, brochures, product data sheets, and information other which the Contractor provides to illustrate details of portions of the Work.
- .16 Specifications: The Specifications are that portion of the Contract Documents, wherever located and whenever issued, consisting of the written requirements, administration and standards for products, systems, workmanship, quality, and the services necessary for the performance of the Work.
- .17 Subcontractor: A Subcontractor is a person or entity having a direct contract with the Contractor to supply materials, labour or perform a part or parts of the Work, at the Place of the Work.
- .18 Supplemental Instruction: A Supplemental Instruction is an instruction, not involving adjustment in the Contract Price or Contract Time, in the form of Specifications, Drawings, schedules, samples, models or written instructions, consistent with the intent of the Contract Documents. It is to be issued by the Consultant to supplement the Contract Documents as required for the performance of the Work.
- .19 Supplier: A Supplier is a person or entity having a direct contract with the Contractor to supply finished products or materials.
- .20 Temporary Work: Temporary Work means temporary supports, structures, facilities, services, and other temporary items, excluding Construction Equipment, required for the execution of the Work but not incorporated into the Work.
- .21 Work: The Work means the total construction and related services required by the Contract Documents.

Part 2 Products

2.1 NOT USED

- .1 Not used.

Part 3 Execution

3.1 NOT USED

.1 Not used.

END OF SECTION

Part 1 General

1.1 DESCRIPTION

- .1 This Section specifies requirements for a detailed Construction Progress Schedule.

1.2 REQUIREMENTS

- .1 Prepare and submit a Construction Progress Schedule detailing Substantial Performance of the Work within the time period stated in the Bid Form.
- .2 Construction Progress Schedule to include dates for:
 - .1 Mobilization on-site.
 - .2 Provide site protection, hoarding, signage, fencing, etc.
 - .3 Concrete repair.
 - .4 Installation injection epoxy.
 - .5 Installation of survey monuments and monitoring stations.
 - .6 Substantial completion.
- .3 Interim reviews of work progress based on work schedule will be conducted as decided by Consultant and schedule updated by Contractor in conjunction with and to approval of Consultant.

1.3 FORMAT

- .1 The Contractor shall submit initial schedule within (7) seven days after award of Contract.
- .2 Provide schedule in the form of a horizontal bar chart.
- .3 Include the dates for the commencement and completion of each major elements of construction.
- .4 The Consultant and Contractor will meet to review the proposed Work Schedule and the Contractor will make necessary changes until a satisfactory schedule is arrived at. Deviation from the approved schedule must be approved by the Consultant.
- .5 The modified schedule, as approved in writing by the Consultant required during the execution of the contract to reflect changes in the estimated quantity of work, shall form an integral part of the contract documents.

1.4 SUBMITALS

- .1 Submit one opaque reproduction, plus two copies to be retained by the Consultant.
- .2 Consultant will review schedule and return reviewed copy within five days after receipt.

1.5

PROJECT MEETING

- .1 Meet with Consultant within 7 working days of Award of Contract date, to establish scope of Work and approach to project construction operations.

END OF SECTION

Part 1 General

1.1 DESCRIPTION

- .1 This Section specifies the requirements for submittals of information by the Contractor for review by the Consultant.
- .2 Additional specific requirements for submittals may also be included in individual Sections of Divisions 1 through 33.

1.2 ADMINISTRATIVE

- .1 Submit to Consultant submittals listed for review. Submit promptly and in orderly sequence to not cause delay in Work. Failure to submit in ample time is not considered sufficient reason for extension of Contract Time and no claim for extension by reason of such default will be allowed.
- .2 Make submittal submissions to Consultant, with additional submissions to other parties involved with construction of the Project as directed by the Consultant. Other parties may be one of the following, but shall not be restricted to, consultants, authorities, Contractors whose work must be coordinated with work related to submittals, or other organization as determined by the Consultant.
- .3 Do not proceed with Work affected by submittal until review is complete.
- .4 Present shop drawings, product data, samples and mock-ups in SI Metric units.
- .5 Review submittals prior to submission to Consultant. This review represents that necessary requirement have been determined and verified, or will be, and that each submittal has been checked and co-ordinated with requirements of Work and Contract Documents. Submittals not stamped, signed, dated and identified as to specific project will be returned without being examined and considered rejected.
- .6 Verify field measurements and affected adjacent Work is coordinated.
- .7 Contractor's responsibility for errors and omissions in submission is not relieved by Consultant's review of submittals.
- .8 Contractor's responsibility for deviations in submission from requirements of Contract Documents is not relieved by Consultant's review.
- .9 Keep one reviewed copy of each submission on site.

1.3 SHOP DRAWINGS AND PRODUCT DATA

- .1 The term "shop drawings" means drawings, diagrams, illustrations, schedules, performance charts, brochures and other data which are to be provided by Contractor to illustrate details of a portion of Work.
- .2 Indicate materials, methods of construction and attachment or anchorage, erection diagrams, connections, explanatory notes and other information necessary for completion of Work. Where articles or equipment attach or connect to other articles or equipment, indicate that such items have been co-ordinated, regardless of Section under which adjacent items will be supplied and installed. Indicate cross references to design drawings and specifications.

- .3 Adjustments made on shop drawings by Consultant are not intended to change Contract Price. If adjustments affect value of Work, state such in writing to Consultant prior to proceeding with Work.
- .4 Make changes in shop drawings as Consultant may require, consistent with Contract Documents. When resubmitting, notify Consultant in writing of revisions other than those requested.
- .5 Accompany submissions with transmittal letter, in duplicate, containing:
 - .1 Date.
 - .2 Project title and number.
 - .3 Contractor's name and address.
 - .4 Identification and quantity of each shop drawing, product data and sample.
 - .5 Other pertinent data.
- .6 Submissions include:
 - .1 Date and revision dates.
 - .2 Project title and number.
 - .3 Name and address of:
 - .1 Contractor
 - .2 Subcontractor.
 - .3 Supplier.
 - .4 Manufacturer.
 - .5 Other pertinent detail.
 - .4 Contractor's stamp, signed by Contractor's authorized representative certifying approval of submissions, verification of field measurements and compliance with Contract Documents.
 - .5 Details of appropriate portions of Work as applicable:
 - .1 Fabrication.
 - .2 Layout, showing dimensions, including identified field dimensions, and clearances.
 - .3 Setting or erection details.
 - .4 Capacities.
 - .5 Performance characteristics.
 - .6 Standards.
 - .7 Operating weight.
 - .8 Wiring diagrams.
 - .9 Single line and schematic diagrams.
 - .10 Relationship to adjacent work.
- .7 After Consultant's review, distribute copies.
- .8 Submit 3 prints and electronic copy (if available) of shop drawings for each requirement requested in specification Sections and as Consultant may reasonably request.

- .9 Submit 3 prints or electronic copy (if available) of product data sheets or brochures for requirements requested in specification Sections and as requested by Consultant where shop drawings will not be prepared due to standardized manufacture of product.
- .10 Submit 3 prints or electronic copy of test reports for requirements requested in specification Sections and as requested by Consultant.
 - .1 Report signed by authorized official of testing laboratory that material, product or system identical to material, product or system to be provided has been tested in accord with specified requirements.
 - .2 Testing must have been within 3 years of date of contract award for project and must conform to all current applicable code requirements.
- .11 Submit 3 prints or electronic copy of certificates for requirements requested in specification Sections and as requested by Consultant.
 - .1 Statements printed on manufacturer's letterhead and signed by responsible officials of manufacturer of product, system or material attesting that product, system or material meets specification requirements.
 - .2 Certificates must be dated after award of project contract complete with project name.
- .12 Submit 3 prints or electronic copy of manufacturer's instructions for requirements requested in specification Sections and as requested by Consultant.
 - .1 Pre-printed material describing installation of product, system or material, including special notices and Material Safety Data Sheets concerning impedances, hazards and safety precautions.
- .13 Submit 3 prints or electronic copy of Manufacturer's Field Reports for requirements requested in specification Sections and as requested by Consultant.
 - .1 Documentation of the testing and verification actions taken by manufacturer's representative to confirm compliance with manufacturer's standards or instructions.
- .14 Submit 3 prints or electronic copy of Operation and Maintenance Data for requirements requested in specification Sections and as requested Consultant.
- .15 Delete information not applicable to project.
- .16 Supplement standard information to provide details applicable to project.
- .17 If upon review by Consultant, no errors or omissions are discovered, copies will be returned and fabrication and installation of Work may proceed. If shop drawings are rejected, noted copy will be returned and resubmission of corrected shop drawings, through same procedure indicated above, must be performed before fabrication and installation of Work may proceed.
- .18 Review of shop drawings prior to submission to the Consultant. Review of shop drawings is for sole purpose of ascertaining conformance with general concept. This review represents that necessary requirements have been determined and verified, or will be, and that each submittal has been checked and coordinated with the requirements of the work and the Contract Documents. Without restricting generality of foregoing, Contractor is responsible for dimensions to be confirmed and correlated at job site, for information that

pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of Work of all sub-trades.

- .19 Resubmit immediately Drawings noted "see comments" if requested by the Consultant, to ensure that corrections have been made.
- .20 Drawings requiring resubmissions to be either corrected or resubmitted or to be superseded by other submitted Drawings.
- .21 Do not make any changes to Shop Drawings after final review without written permission of the Consultant.
- .22 Where necessary and required, shop drawings shall be stamped and signed by a professional engineer licensed in the territory of Nunavut.

1.4 SAMPLES

- .1 Submit for review samples in duplicate as requested in respective specification Section. Label samples with origin and intended use.
- .2 Deliver samples prepaid to Consultant.
- .3 Notify Consultant in writing, at time of submission of deviations in samples from requirements of Contract Documents.
- .4 Where colour, pattern or texture is criterion, submit full range of samples.
- .5 Adjustments made on samples by Consultant are not intended to change Contract Price adjustments affect value of Work, state such in writing to Consultant prior to proceeding with Work.
- .6 Make changes in samples which Consultant may require, consistent with Contract Documents.
- .7 Reviewed and accepted samples will become standard of workmanship and material against which installed Work will be verified.

Part 2 Products

2.1 NOT USED

- .1 Not Used.

Part 3 Execution

3.1 NOT USED

- .1 Not Used.

END OF SECTION 01 33 00

Part 1 General

1.1 REFERENCES

- .1 Manual of Uniform Traffic Control Devices for Streets and Highways - 2002.

1.2 PROTECTION OF PUBLIC TRAFFIC

- .1 Comply with requirements of Acts, Regulations and By-Laws in force for regulation of traffic or use of roadways upon or over which it is necessary to carry out Work or haul materials or equipment.
- .2 When working on travelled way:
 - .1 Place equipment in position to present minimum of interference and hazard to travelling public.
 - .2 Keep equipment units as close together as working conditions permit and preferably on same side of travelled way.
 - .3 Do not leave equipment on travelled way overnight.
- .3 Do not close any lanes of road without approval of Consultant. Before re-routing traffic, erect suitable signs and devices in accordance with instructions contained in Part D of UTCD.
- .4 Contractor to ensure the access gates on the North and South access roads are closed and secured when their forces are not on site.

1.3 INFORMATIONAL AND WARNING DEVICES

- .1 Provide and maintain signs, and other devices required to indicate construction activities or other temporary and unusual conditions resulting from Project Work which requires road user response.
- .2 Supply and erect signs, delineators, barricades and miscellaneous warning devices as specified in Part D, Temporary Conditions Signs and Devices, of UTCD manual.
- .3 Place signs and other devices in locations recommended in UTCD manual.
- .4 Continually maintain traffic control devices in use by:
 - .1 Checking signs daily for legibility, damage, suitability and location. Clean, repair or replace to ensure clarity and reflectance.
 - .2 Removing or covering signs which do not apply to conditions existing from day to day.

Part 2	Products
2.1	NOT USED
.1	Not Used.

Part 3	Execution
3.1	NOT USED
.1	Not Used.

END OF SECTION

Part 1 General

1.1 REFERENCES

- .1 Canada Labour Code, Part 2, Canada Occupational Safety and Health Regulations.
- .2 Health Canada/Workplace Hazardous Materials Information System (WHMIS).
 - .1 Material Safety Data Sheets (MSDS).
- .3 Occupational Health and Safety Act and Regulations for Construction Projects, R.S.O. 1990.

1.2 FILING OF NOTICE

- .1 File Notice of Project with Territorial authorities prior to beginning of Work.

1.3 SAFETY ASSESSMENT

- .1 Perform site specific safety hazard assessment related to project.

1.4 GENERAL REQUIREMENTS

- .1 Develop site-specific Health and Safety Plan based on hazard assessment prior to beginning site Work and continue to implement, maintain, and enforce plan until final demobilization from site. Health and Safety Plan must address existing site conditions and the requirements specified within the project specifications.
- .2 Observe and enforce construction safety measures required by Code, The Occupational Health and Safety Act, and Regulations for Construction Projects WORKERS' COMPENSATION ACT, S.N.W.T. 2007, in force April 1, 2008 with latest amendments and the Northwest Territory & Nunavut Code of Practice, Personal Protective Equipment, Respiratory Protection.
- .3 Contractor to check and verify the securement and performance of all safety systems and guard rail systems prior to the start of work each day.

1.5 RESPONSIBILITY

- .1 Be responsible for health and safety of persons on site, safety of property on site and for protection of persons adjacent to site and environment to extent that they may be affected by conduct of Work.
- .2 Comply with and enforce compliance by employees with safety requirements of Contract Documents, applicable federal, provincial, and local statutes, regulations, and ordinances, and with site-specific Health and Safety Plan.

1.6 HEALTH AND SAFETY CO-ORDINATOR

- .1 Employ and assign to Work, a competent and authorized representative as Health and Safety Co-ordinator. Health and Safety Co-ordinator must:

- .1 Have working knowledge of occupational safety and health regulations.
- .2 Be responsible for implementing, enforcing daily and monitoring site-specific Contractor's Health and Safety Plan.

1.7 WORK STOPPAGE

- .1 Give precedence to safety and health of public and site personnel and protection of environment over cost and schedule considerations for Work.

Part 2 Products

2.1 NOT USED

- .1 Not used.

Part 3 Execution

3.1 NOT USED

- .1 Not used.

END OF SECTION

Part 1 General

1.1 REFERENCES

- .1 Work shall conform to the requirements of the all local, Municipal, Territorial, and Federal building by-laws and ordinances.

1.2 INSTALLATION AND REMOVAL

- .1 Provide temporary controls in order to execute Work expeditiously.
- .2 Remove from site all such work after use.

1.3 HOARDING

- .1 Erect temporary site enclosures as required by relevant national, territorial and municipal safety regulations.

1.4 GUARD RAILS AND BARRICADES

- .1 Provide secure, rigid guard rails and barricades around deep excavations, open shafts, open stair wells, open edges of floors and roofs.
- .2 Inspect guard rail systems prior to the start of work each day.

1.5 ACCESS TO SITE

- .1 Provide and maintain access roads and construction runways as may be required for access to Work.

1.6 PUBLIC TRAFFIC FLOW

- .1 Provide and maintain competent signal flag operators, traffic signals, barricades and flares, lights, or lanterns as required to perform Work and protect public.

1.7 FIRE ROUTES

- .1 Maintain access to property including overhead clearances for use by emergency response vehicles.

1.8 PROTECTION FOR OFF-SITE AND PUBLIC PROPERTY

- .1 Protect surrounding private and public property from damage during performance of Work.
- .2 Be responsible for damage incurred.

Part 2	Products
2.1	NOT USED
.1	Not used.

Part 3	Execution
3.1	NOT USED
.1	Not used.

END OF SECTION

Part 1 General

1.1 GENERAL

- .1 In instances where more than one code, regulation or specification requirement may exist, the more restrictive requirement shall govern. Contractor shall provide written notification to the City of Iqaluit where clarification is required or conflict in governance exists.
- .2 The specifications for this part of the work shall be considered as an integral part of the drawings which accompany them, and neither the drawings nor the specifications shall be considered alone. Any item which is omitted from one but which is mentioned or reasonably implied in the other, shall be considered as properly and sufficiently specified, and must be therefore provided. All items not specifically mentioned in the drawings or specifications, but which are necessary to make and or complete the work specified, shall be included in the scope of work and the Contractors bid amount.

1.2 CONTRACTOR'S DAILY WORK LOG BOOK

- .1 The Contractor shall maintain a Daily Work Log Book on site.
- .2 The Contractor shall be responsible for the documentation of work completed and events on site each day. The Daily Work Log Book shall be updated at the end of each work day.
- .3 The Contractor shall be responsible for circulation of the daily records of work on site no later than Monday at 10:00 a.m. for the preceding seven (5 work and two weekend days) days or as requested by the City of Iqaluit.
- .4 The log book shall be maintained on site and be available for review by the City of Iqaluit.
- .5 The log book shall form part of the project record which shall be included in the closeout documentation to be submitted to the City of Iqaluit upon completion of work.
- .6 The log book shall document the progression of the project each day. The daily logs shall include:
 - .1 Date and description of the weather conditions, including average air temperature.
 - .2 Area and quantity of repair.
 - .3 Area and quantity of material installation.
 - .4 Number and trades of staff on site.
 - .5 Batch numbers of the material used in each day.
 - .6 Notes of any unusual conditions or events encountered that day.
 - .7 Delivery of material and equipment on site.

1.3 ALTERNATE MATERIALS

- .1 Each Section establishes the standard of quality required for the materials to be used on site and incorporated into the building envelope. Proposed substitutions or alternate material or techniques must meet this standard, and will be considered as follows:

- .1 Any request for the use of a substitute or alternate material must be submitted in writing to the City of Iqaluit.
- .2 The written request for approval of a substitution or alternate material is received no less than ten (10) days prior to tender closing.
- .3 The request shall include a complete item-by-item description showing how the alternative material meets or exceeds the requirements set out in the specification. Only products which meet the requirements of the specifications will be considered. Submissions must include:
 - .1 Manufacturer's literature, technical data sheet, samples, test data, engineering standards and performance evaluation indicating comparable performance equal or better than the performance standards specified.
 - .2 Provide proof that the products that have been tested, found suitable, and documented as such by the manufacturer for the particular substrates to which they will be applied.
 - .3 Proof of testing and material properties in accordance with CSA, CGSB and ASTM standards specified, by a recognized authority located on North America.
 - .4 Performance evaluation from a firm accredited in Canada, indicating compliance with the specified standards and material properties.
- .4 Proposed material substitutions will be rejected if the Contractor fails to provide all of the required literature and technical data to allow an evaluation by the City of Iqaluit prior to the ten (10) day before tender closing.
- .5 Allow 4 working days for review by the City of Iqaluit.

1.4 QUALITY

- .1 Products, materials, equipment and articles incorporated in Work shall be new, not damaged or defective, and of best quality for purpose intended. If requested, furnish evidence as to type, source and quality of products provided.
- .2 Procurement policy is to acquire, in cost effective manner, items containing highest percentage of recycled and recovered materials practicable consistent with maintaining satisfactory levels of competition. Make reasonable efforts to use recycled and recovered materials and in otherwise utilizing recycled and recovered materials in execution of work.
- .3 Defective products, whenever identified prior to completion of Work, will be rejected, regardless of previous inspections. Inspection by the City of Iqaluit is a precaution against oversight or error on the part of the Contractor. Inspection by the City of Iqaluit or Consultant does not relieve the Contractors' of their responsibility to complete the work as specified within the contract documents. Remove and replace defective products at own expense and be responsible for delays and expenses caused by rejection.
- .4 Should disputes arise as to quality or fitness of products, decision rests strictly with the City of Iqaluit based upon requirements of Contract Documents.
- .5 Unless otherwise indicated in specifications, maintain uniformity of manufacture for any particular or like item throughout building.

1.5 AVAILABILITY

- .1 Immediately upon signing Contract, review product delivery requirements and anticipate foreseeable supply delays for items. If delays in supply of products are foreseeable, notify the City of Iqaluit of such no less than 20 working days prior to the start of work to allow substitutions of equivalent materials or other remedial action may be authorized in ample time to prevent delay in performance of Work.
- .2 In event of failure to notify the City of Iqaluit at commencement of Work and should it subsequently appear that Work may be delayed for such reason, the City of Iqaluit reserves right to substitute more readily available products of similar character, at no increase in Contract Price or Contract Time.

1.6 USE OF SITE FACILITIES

- .1 The site is an operational facility and the Contractor must coordinate all access and work on site with the City of Iqaluit.
- .2 The Contractor shall provide access to and about the site to ensure continuous and efficient delivery and movement of people, materials and equipment by the City of Iqaluit's forces. Arrange routes so that they do not conflict with operations and access to the building.
- .3 At the completion of the work, all temporary connections, safety systems and equipment shall be removed and the services and finishes shall be made good by the Contractor to the satisfaction of the City of Iqaluit.
- .4 The Contractor shall provide and maintain temporary enclosures and interior building temperature required to prevent moisture damage to the work, the building or the contents therein.
- .5 Restrict all personnel employed in connection with the work to the area(s) approved for access by the Contractor.

1.7 STORAGE, HANDLING AND PROTECTION

- .1 The Contractor shall undertake additional measures to ensure that any fuel or propane bottles stored on site are protected from vandalism, ignition or accidental damage. The Contractor shall ensure that any fuel or propane gas cannot be released, moved or vandalized by unauthorized persons.
- .2 Handle and store products in manner to prevent damage, adulteration, deterioration and soiling and in accordance with manufacturer's instructions where applicable.
- .3 Store packaged or bundled products in original and undamaged condition with manufacturer's seal and labels intact. Do not remove from packaging or bundling until required in Work.
- .4 Store products subject to damage from weather in weatherproof enclosures.
- .5 Remove and replace damaged products at own expense and to satisfaction of the City of Iqaluit.
- .6 Touch-up damaged factory finished surfaces to the City of Iqaluit's satisfaction. Use touch-up materials to match original. Do not paint over name plates.

- .7 The Contractor shall assume all liability for, and be responsible for loss of or damage to, all equipment and materials stored on site, and for any equipment or materials delivered from whatever source to the site of the work.
- .8 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of hazardous materials; and regarding labelling and provision of Material Safety Data Sheets (MSDS) acceptable to Labour Canada.
- .9 All materials shall be delivered and stored in their original packaging, bearing the manufacturer's name, related standards and any other specification or reference accepted as standard.
- .10 Protect and store all materials in a dry, well ventilated and weatherproof location. During winter, store materials in a heated location with a 5 degree C minimum temperature. Remove only as needed for immediate use. Keep materials away from open flame or high temperatures.
- .11 Avoid stockpiling materials on site in a manner which could cause overloading or damage to the building assemblies.
- .12 Store all materials in a manner that does not create a hazard to the building or public safety.
- .13 Storage and Handling Requirements
 - .1 Safety: comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of all products and materials used on site.
 - .2 Provide and maintain dry, off-ground weatherproof storage and protect from freezing, moisture, water and contact with ground or floor
 - .3 Store components and materials in accordance with panel manufacturer's recommendations and protect from elements and damage.
 - .4 Remove only in quantities required for same day use.
 - .5 Store sealants at +5 degrees C minimum.

1.8 TRANSPORTATION

- .1 Pay costs of transportation of materials and products required in performance of Work.

1.9 MANUFACTURER INSTRUCTION

- .1 Unless otherwise indicated in specifications, install or erect products in accordance with manufacturer's instructions. Do not rely on labels or enclosures provided with products. Obtain written instructions directly from manufacturers.
- .2 Notify the City of Iqaluit in writing, of conflicts between specifications and manufacturer's instructions, so that the City of Iqaluit will establish course of action.
- .3 Improper installation or erection of products, due to failure in complying with these requirements, authorizes the City of Iqaluit to require removal and re-installation at no increase in Contract Price or Contract Time.

1.10 QUALITY OF WORK

- .1 Ensure Quality of Work is of highest standard, executed by workers experienced and skilled in respective duties for which they are employed. Immediately notify the City of Iqaluit if required Work is such as to make it impractical to produce required results.
- .2 Do not employ anyone unskilled in their required duties. The City of Iqaluit reserves right to require dismissal from site, workers deemed incompetent or careless.
- .3 Decisions as to standard or fitness of Quality of Work in cases of dispute rest solely with the City of Iqaluit, whose decision is final.
- .4 The Contractor is responsible for the control and application of construction safety measures on site and it's conformance with the current legislation, acts, and other regulations in effect or required.
- .5 The Contractor shall have total control of the Work and shall effectively direct and supervise the Work to ensure conformity with the Contract Documents. The Contractor shall have a competent and qualified person supervising the work on site at all times.
- .6 The Contractor shall have a competent person for emergency calls after construction hours and during weekends. It shall be the Contractor's responsibility to supply the City of Iqaluit with the name and telephone number of the person to be contacted during these periods.
- .7 The Contractor shall have control over, charge of and be responsible for the acts or omissions of the Contractor, Subcontractor's, Suppliers, or their agents, employees, or any other persons performing portions of the Work therein.
- .8 The Contractor shall be solely responsible for the construction, schedule, methods, techniques, sequences, procedures and for coordination and supervision of their sub-trades and all parts of the Work under the Contract.

1.11 COORDINATION AND COOPERATION

- .1 Execute work with minimum disturbance to the building operations, occupants, public and normal use of site. Maintain access and exits to the building and site. Where security has been reduced by work of contract, provide temporary means to maintain security.
- .2 The work shall be inspected and tested by the City of Iqaluit. The Contractor must keep the City of Iqaluit and Consultant informed at all time when work is being carried out.
- .3 A minimum seven (7) days noticed shall be given by the Contractor prior to the required inspection unless agreed upon otherwise.
- .4 Any work not accepted by the City of Iqaluit shall be immediately corrected by the Contractor to the City of Iqaluit's satisfaction. Frequency of the tests will be determined by the City of Iqaluit.

1.12 CONCEALMENT

- .1 Before installation inform the City of Iqaluit if there is interference. Install as directed by the City of Iqaluit.

1.13 REMEDIAL WORK

- .1 Perform remedial work required to repair or replace parts or portions of Work identified as defective or unacceptable. Co-ordinate adjacent affected Work as required.
- .2 Perform remedial work by specialists familiar with materials affected. Perform in a manner to neither damage nor put at risk any portion of Work.

1.14 LOCATION OF FIXTURES

- .1 Consider location of fixtures, outlets, and mechanical and electrical items indicated as approximate.
- .2 Inform the City of Iqaluit of conflicting installation. Install as directed.

1.15 FASTENING

- .1 Provide metal fastenings and accessories where indicated in the design documents in same texture, colour and finish as adjacent materials, unless indicated otherwise.
- .2 Prevent electrolytic action between dissimilar metals and materials.
- .3 Use non-corrosive hot dip galvanized steel fasteners and anchors for securing exterior work, unless stainless steel or other material is specifically requested in affected specification Section.
- .4 Space anchors within individual load limit or shear capacity and ensure they provide positive permanent anchorage. Wood, or any other organic material plugs are not acceptable.
- .5 Keep exposed fastenings to a minimum, space evenly and install neatly.
- .6 Fastenings which cause spalling or cracking of material to which anchorage is made are not acceptable.

1.16 PROTECTION OF WORK IN PROGRESS

- .1 Prevent overloading. Do not cut, drill or sleeve load bearing structural member, unless specifically indicated without written approval of the City of Iqaluit.

1.17 EXISTING UTILITIES

- .1 When breaking into or connecting to existing services or utilities, execute Work at times directed by local governing authorities, with minimum of disturbance to Work, pedestrian traffic, and/or building occupants.
- .2 Protect, relocate or maintain existing active services. When services are encountered, cap off in manner approved by authority having jurisdiction. Stake and record location of capped service.

1.18 WASTE MANAGEMENT AND DISPOSAL

- .1 Separate waste materials for reuse or recycling in accordance with Section 01 74 11 - Material Disposal.

Part 2 Products

2.1 Not Used

.1 Not Used.

Part 3 Execution

3.1 Not Used

.1 Not Used.

END OF SECTION 01 61 00

Part 1 General

1.1 STORAGE, HANDLING AND PROTECTION

- .1 Store, materials to be reused, recycled and salvaged in locations as directed by Consultant.
- .2 Unless specified otherwise, materials for removal do not become Contractor's property.
- .3 Protect, stockpile, store and catalogue salvaged items.
- .4 Separate non-salvageable materials from salvaged items. Transport and deliver non-salvageable items to licensed disposal facility.
- .5 Protect surface drainage, mechanical and electrical from damage and blockage.
- .6 Prevent contamination of materials to be salvaged and recycled and handle materials in accordance with requirements for acceptance by designated facilities.
 - .1 On-site source separation is recommended.
 - .2 Remove co-mingled materials to off-site processing facility for separation.

1.2 PROJECT CLEANLINESS

- .1 Maintain Work in tidy condition, free from accumulation of waste products and debris, including that caused by other Contractors.
- .2 Remove waste materials from site at regularly scheduled frequencies.
- .3 No waste material shall be permitted within the reservoir, any material that falls into the reservoir must be removed by the Contractor.
- .4 Provide on-site waste containers for collection of waste materials and debris.
- .5 Dispose of waste materials and debris at designated dumping waste handling locations.
- .6 Clean interior areas prior to start of finishing work, and maintain areas free of dust and other contaminants during finishing operations.
- .7 Store volatile waste in covered metal containers, and remove from premises at end of each working day.
- .8 Provide adequate ventilation during use of volatile or noxious substances.
- .9 Use only cleaning materials recommended by manufacturer of surface to be cleaned, and as recommended by cleaning material manufacturer.

1.3 DISPOSAL OF WASTES

- .1 Do not bury rubbish or waste materials.

- .2 Do not dispose of waste into waterways, storm, or sanitary sewers.
- .3 Remove materials from deconstruction as deconstruction/disassembly Work progresses.

1.4 FINAL CLEANING

- .1 When Work is Substantially Performed remove surplus products, tools, construction machinery and equipment not required for performance of remaining Work.
- .2 Remove waste products and debris and leave Work clean and suitable for occupancy.
- .3 Prior to final review remove surplus products, tools, construction machinery and equipment.
- .4 Remove waste materials from site at regularly scheduled frequencies. Do not burn waste materials on site.
- .5 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
- .6 Broom clean and wash exterior walks, steps and surfaces; rake clean other surfaces of grounds.
- .7 Remove dirt and other disfiguration from exterior surfaces.
- .8 Sweep and wash clean paved areas. Clean equipment and fixtures to sanitary condition; clean or replace filters of mechanical equipment.
- .9 Remove debris and surplus materials from crawl areas and other accessible concealed spaces.

Part 2 Products

2.1 NOT USED

- .1 Not used.

Part 3 Execution

3.1 NOT USED

- .1 Not used.

END OF SECTION

Part 1 General**1.1 ADMINISTRATIVE REQUIREMENTS**

- .1 Pre-warranty Meeting:
 - .1 Conduct meeting with the City of Iqaluit representatives to:
 - .1 Verify Project requirements.
 - .2 Review warranty requirements and manufacturer's installation instructions where applicable.
 - .2 The Owner to establish communication procedures for:
 - .1 Notifying construction warranty defects.
 - .2 Determine priorities for type of defects.
 - .3 Determine reasonable response time.
 - .3 Contractor to provide contact information for bonded and licensed company for warranty work action: provide name, telephone number and address of company authorized for construction warranty work action.
 - .4 Ensure contact is located within local service area of warranted construction, is continuously available, and is responsive to inquiries for warranty work action.

1.2 ACTION AND INFORMATION SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Prepare instructions and data using personnel experienced in maintenance and operation of described products.
- .3 Copy will be returned after final review with the Owner's comments.
- .4 Revise content of documents as required prior to final submittal.
- .5 Submit to the Owner four final copies of operating and maintenance manuals in English.
- .6 Furnish evidence, if requested, for type, source and quality of products provided.
- .7 Defective products will be rejected, regardless of previous inspections. Replace products at own expense.
- .8 Pay costs of transportation.

1.3 FORMAT

- .1 O and M manuals are to be assembled as follows:
 - .1 The Contractor to provide three (3) hard copy binders and 1 CD copy of Operations and Maintenance (O&M) Manuals upon project completion.
 - .2 O and M Manuals are to be assembled in a 1" or greater 3 ring binder labelled on the front cover and on the binder edge with the:
 - .1 Building name and address, project name, project number project number, and completed date
 - .3 O and M Manuals are to include:

- .1 A title page with building name, address, date, general contractor information: name, address, and phone numbers, consultant: name, address, and phone number, table of contents each binder's content.
- .2 Index and tabs are to have dividers with permanently marked tabs to separate each section and sub section, tab labels typed – not hand written, main tab for each specification section.
- .4 O and M Manuals are to be formatted and tabbed in accordance with the Owner's O&M guidelines, information to be included:
 - .1 Signed Letter of warranty: Dated to date of substantial completion as determined by the Owner, identifying project by name, project number project number, building location as well as warranty period. All warranties to be included from all contractors in this sections and extended warranties.
 - .2 Contact information for all sub-contractors and suppliers, including: name, address, telephone number of manufacturer, installing contractor.
 - .3 All test results, inspection reports, and permits.
 - .4 As built drawings – to be marked in “red” by contractor and provided to the Owner.
 - .5 Copy of reviewed shop drawings.
 - .6 Copy of specific service and maintenance manuals, including preventative and corrective maintenance, with service procedures and schedules for preventative maintenance in a printed format and electronic format compatible with the Owner's system, recommended frequency of performance for each preventive maintenance task, inspection and scheduled overhauls or reconditioning, Cleaning: Instructions and schedules for all routine cleaning and inspection recommended, including recommended cleaners and lubricants, Repairs: Instructions for minor repairs or adjustments required for preventative maintenance routines.
 - .7 Health and Safety submittals including: site specific hazard assessment, safety manual TOC and company safety policy, MSDS sheets (if applicable) signed site orientations for worker, copy of first aid certificate, copy of emergency plan and muster location.
 - .8 Copy of all product data sheets.
 - .9 Copy of the Contractor daily work log.

1.4 CONTENTS – PROJECT RECORD DOCUMENTS

- .1 Title Page: Provide building name, address, date, general contractor information (name, address and phone numbers) and consultant information (name, address and phone numbers).
- .2 Table of Contents for Each Volume: provide title of project; date of submission; and include:
 - .1 Names, addresses, and telephone numbers of Consultant and Contractor with name of responsible parties.
 - .2 Schedule of products and systems, indexed to content of volume.

- .3 For each product or system:
 - .1 List names, addresses and telephone numbers of subcontractors and suppliers, including local source of supplies and replacement parts.
 - .2 Product Data: mark each sheet to identify specific products and component parts, and data applicable to installation; delete inapplicable information.
 - .3 Drawings: supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams.
- .4 Typewritten Text: as required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.

1.5 AS- BUILT DOCUMENTATION AND SAMPLES

- .1 Maintain, in addition to requirements in General Conditions at site for the Owner one record copy of:
 - .1 Contract Drawings.
 - .2 Specifications.
 - .3 Addenda.
 - .4 Change Orders and other modifications to Contract.
 - .5 Reviewed shop drawings, product data, and samples.
 - .6 Field test records.
 - .7 Inspection certificates.
 - .8 Manufacturer's certificates.
 - .9 Daily work log.
- .2 Store record documents and samples in field office apart from documents used for construction. Provide files, racks, and secure storage.
- .3 Label record documents and file in accordance with Section number listings in List of Contents of this Project Manual. Label each document "PROJECT RECORD" in neat, large, printed letters.
- .4 Maintain record documents in clean, dry and legible condition. Do not use record documents for construction purposes.
- .5 Keep record documents and samples available for inspection by the Owner.

1.6 RECORD INFORMATION ON PROJECT RECORD DOCUMENTS

- .1 Record information on set of drawings provided by the Owner.
- .2 Use felt tip marking pens, maintaining separate colours for each major system, for recording information.
- .3 Record information concurrently with construction progress.
 - .1 Do not conceal Work until required information is recorded.
- .4 Contract Drawings and shop drawings: mark each item to record actual construction, including:
 - .1 Measured depths of elements of foundation in relation to finish first floor datum.

- .2 Measured locations of internal utilities and appurtenances, referenced to visible and accessible features of construction.
- .3 Field changes of dimension and detail.
- .4 Changes made by change orders.
- .5 Details not on original Contract Drawings.
- .6 Referenced Standards to related shop drawings and modifications.
- .5 Specifications: mark each item to record actual construction, including:
 - .1 Manufacturer, trade name, and catalogue number of each product actually installed, particularly optional items and substitute items.
 - .2 Changes made by Addenda and change orders.
- .6 Provide digital photos, if requested, for site records.

1.7 MATERIAL AND FINISHES

- .1 Building Products, Applied Materials, and Finishes: include product data, with catalogue number, size, composition, and colour and texture designations.
- .2 Instructions for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- .3 Moisture-Protection and Weather-Exposed Products: Include manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- .4 Additional Requirements: as specified in individual specifications sections.

1.8 WARRANTIES AND BONDS

- .1 Develop warranty management plan to contain information relevant to Warranties.
- .2 Submit warranty management plan, 30 days before planned pre-warranty conference, to the Owner for approval.
- .3 Warranty management plan to include required actions and documents to assure that the Owner receives warranties to which it is entitled.
- .4 Provide plan in narrative form and contain sufficient detail to make it suitable for use by future maintenance and repair personnel.
- .5 Submit, warranty information made available during construction phase, to the Owner for approval prior to each monthly pay estimate.
- .6 Assemble approved information in binder, submit upon acceptance of work and organize binder as follows:
 - .1 Separate each warranty or bond with index tab sheets keyed to Table of Contents listing.
 - .2 List subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.
 - .3 Obtain warranties and bonds, executed in duplicate by subcontractors, suppliers, and manufacturers, within ten days after completion of applicable item of work.

CONSTRUCTION SERVICES
SECTION 01 78 00 – CLOSEOUT SUBMITTALS

- .4 Verify that documents are in proper form, contain full information, and are notarized.
- .5 Co-execute submittals when required.
- .6 Retain warranties and bonds until time specified for submittal.
- .7 Except for items put into use with the Owner's permission, leave date of beginning of time of warranty until Date of Substantial Performance is determined.
- .8 Conduct 11 month warranty inspection, measured from time of acceptance, by the Owner. Repair any deficiencies observed in the completed work.
- .9 Include information contained in warranty management plan as follows:
 - .1 Roles and responsibilities of personnel associated with warranty process, including points of contact and telephone numbers within the organizations of Contractors, subcontractors, manufacturers or suppliers involved.
 - .2 Provide list for each warranted equipment, item, and feature of construction or system indicating:
 - .1 Name of item.
 - .2 Model and serial numbers.
 - .3 Location where installed.
 - .4 Name and phone numbers of manufacturers or suppliers.
 - .5 Names, addresses and telephone numbers of sources of spare parts.
 - .6 Warranties and terms of warranty: include one-year overall warranty of construction. Indicate items that have extended warranties and show separate warranty expiration dates.
 - .7 Cross-reference to warranty certificates as applicable.
 - .8 Starting point and duration of warranty period.
 - .9 Summary of maintenance procedures required to continue warranty.
 - .10 Cross-Reference to specific Operation and Maintenance manuals.
 - .11 Organization, names and phone numbers of persons to call for warranty service.
 - .12 Typical response time and repair time expected for various warranted equipment.
- .10 Respond in timely manner to oral or written notification of required construction warranty repair work.
- .11 Written verification to follow oral instructions.
 - .1 Failure to respond will be cause for the Owner to proceed with action against Contractor.



CONSTRUCTION SERVICES
SECTION 01 78 00 – CLOSEOUT SUBMITTALS



Part 2 **Products**

2.1 **Not Used**

Part 3 **Execution**

3.1 **Not Used**

END OF SECTION 01 78 00

Part 1 General

1.1 SCOPE OF WORK

- .1 Supply all materials, labour, plant tools and equipment necessary to complete concrete repairs as specified within the design documents and as directed by the Consultant.
- .2 Repair of deteriorated concrete materials as specified:
 - .1 Chipping and breaking out all deteriorated, spalled and delaminated concrete, defective cold joints, and the subsequent filling of voids, cracks and rebuilding of exterior surface profiles. This work shall be directed by the Consultant at the time of work.
 - .2 General surface preparation of the existing concrete and rebar at the locations designated by the Consultant.
 - .3 Contractor shall carry a 2 square meter allowance to complete the removal and replacement of the existing concrete material to a average depth of 100 mm.
 - .4 Removal and replacement will be undertaken at multiple locations as designated by the Consultant.
- .3 Installation of survey monuments and sensor monitoring stations.
 - .1 Data logger (sensor) monitoring stations as directed by the Consultant and as specified. The contractor shall include the installation of 9 monitoring stations.
 - .2 Survey monuments, the Contractor shall include the installation of:
 - .1 Three (3) monuments to be installed atop and within the concrete dam.
 - .2 Five (5) survey monuments to be installed atop steel piles. set in and filled with concrete.

1.2 REFERENCES

- .1 Canadian Standards Association (CSA International)
- .2 CAN/CSA-A23.1/A23.2, Concrete Materials and Methods of Concrete Construction/Methods of Test for Concrete.

1.3 CERTIFICATES

- .1 Provide certification that plant, equipment, and materials to be used in concrete comply with requirements of CAN/CSA-A23.1.
- .2 Provide certification that mix proportions selected will produce concrete of specified quality and yield and that strength will comply with CAN/CSA-A23.1.

1.4 MEASUREMENTS AND PAYMENTS

- .1 Measurement Procedures:
 - .1 Concrete repair will be measured in square metres.

1.5 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
 - .1 Submit manufacturer's instructions, printed product literature and data sheets and include product characteristics, performance criteria, physical properties, finish and limitations.
- .3 Submit WHMIS Safety Data Sheet (SDS).
 - .1 Submit 2 copies of WHMIS SDS.
- .4 Submit a proposed work plan for approval by Consultant. Work plan to include a list of materials and proposed plan to be implemented to perform the work.

1.6 EXISTING CONDITIONS

- .1 Examine Site conditions and existing surfaces to be repaired.
- .2 Place and set new concrete materials in conformance with the temperature limitations specified by the manufacturer.
- .3 Provide heated enclosures if necessary to allow the new concrete material to cure.

1.7 MEASUREMENT FOR PAYMENT

- .1 Payment shall be based upon the unit rate stipulated in the Contractor's bid amount. Locations for individual repair shall be designated by the Consultant at the start of work.
- .2 Unit rate payment shall be based on a lineal measurement of the area repairs. Concrete repairs shall be measured by the Consultants in the presence of the Contractor to the nearest 0.01 metre. The Contractor shall not exceed beyond the limits of the repair areas which have been agreed upon without prior authorization by the Consultant.
- .3 The stipulated unit prices for concrete repair shall be full compensation for the, removal of the existing concrete material, surface preparation of the concrete and steel reinforcement bars and any other items required to complete the work which shall include the supply and installation of the concrete repair materials.

1.8 WASTE MANAGEMENT AND DISPOSAL

- .1 Remove from site and dispose of packaging materials at appropriate facilities.
- .2 Do not dispose of unused chemical additive materials into water supply systems, into lakes, streams, onto ground or in any other location where it will pose health or environmental hazard.

Part 2 Materials

2.1 MATERIALS

- .1 Concrete materials: specialized concrete repair media, rapid-setting, cementitious repair mortar containing hydraulic cements for use near potable water. Minimum requirements:
 - .1 Compressive strength:
 - .1 7 Day 30 MPa (4350 psi)
 - .2 28 Day 35 MPa (5075 psi)
 - .2 High resistance to freeze-thaw.
 - .3 Suitable for use in vertical applications.
- .2 Approved material:
 - .1 Duro-Crete manufactured by King
 - .2 Speed Crete as manufactured by W.R.Meadows
 - .3 Or approved equivalent.

Part 3 Execution

3.1 GENERAL

- .1 Contractor to ensure all required shoring is in place prior to start of concrete demolition and repair.

3.2 CONCRETE REMOVAL

- .1 No larger than 7kg class chipping hammers shall be used for removal of concrete around and behind reinforcing steel.
- .2 The concrete in the repair area shall be removed until sound concrete is reached or to a minimum depth of 1" (25mm) below the reinforcing steel. Concrete shall not be removed beyond the 100 mm limit except where authorized by the Consultants.
- .3 Removal of concrete shall extend (25mm) beyond visible signs of corrosion along all reinforcing bars exposed in the area of repair.
- .4 Upon completion of initial chipping, the concrete surface immediately surrounding the repair area should be sounded for local delaminations. Chip additional delaminated areas as required.
- .5 The perimeter of the patches shall be saw cut to a minimum of 1/2" (13mm) deep to provide a vertical surface.

3.3 FORMWORK

- .1 The Contractor shall construct all formwork including shoring and bracing to resist loads due to the weight of wet concrete, self-weight of forms and fluid pressure of concrete.

- .2 Formwork shall be constructed with joints sufficiently tight to prevent leakage of grout or concrete.
- .3 The edges of all plywood sheets shall be backed or supported to prevent separation or opening.
- .4 Ensure that all steel reinforcement is tied and/or secured properly so that sufficient cover to the forms is provided. Use plastic or prefabricated chairs.
- .5 Formwork shall remain in place until concrete has reached 75 percent of its 28-day strength or 4 days minimum or as directed by Consultant.

3.4 CONCRETE PREPARATION

- .1 Clean reinforcement to SSPC-SP-3 (power tool cleaning).
- .2 The prepared concrete surface shall be thoroughly wetted down with potable water.
- .3 The approved bonding agent shall be applied to the concrete surface prior to the placement of the repair mortar. The bonding agent shall be scrubbed into the surface, fully filling all voids and irregularities.
- .4 Apply concrete mix when bonding agent is still wet. If bonding agent is allowed to dry, then an additional coat of bonding agent will be required.

3.5 CONCRETE PLACEMENT

- .1 Apply concrete when bonding agent is still wet. If bonding agent is allowed to dry, then an additional coat of bonding agent will be required. Pencil vibrators shall be used for consolidation.
- .2 Pre-bagged concrete shall be mixed and placed in accordance with manufacturing recommendations.

3.6 FINISHING AND CURING

- .1 Finish and cure concrete in accordance with CAN/CSA-A23.1.
- .2 Finish and cure pre-bagged concrete in accordance with manufacturer's instructions.
- .3 Repair surfaces shall be finished to the same level as the surrounding surfaces unless instructed otherwise.

END OF SECTION

Part 1 General**1.1 SCOPE OF WORK**

- .1 Supply all labour, plant, tools, equipment and materials necessary to carry out crack injection repairs within the concrete dam.
- .2 Locations to be designated by the Consultant at the time of work.
- .3 The Contractor shall carry an allowance of 15 linear meters.

1.2 APPROVALS

- .1 The products listed in Clause 2.1 of this specification Section are approved for use on this project. If the contractor or subcontractor responsible for the crack injection is aware that any of the products listed in Clause 2.1 do not meet the requirements as listed, then the Contractor shall advise the Consultant in writing during the tender and the Consultant will instruct the Contractor on acceptable procedures. If no such written document is submitted then it will be accepted that the contractor warrants that any product used meets the requirement of the specifications and application.
- .2 Obtain Consultants written approval prior to use of any crack injection product not specifically listed in this section. Proposals for use of alternate products will be considered, however, the stipulated price submitted must include one of the approved systems and shall show the alternate systems as a separate price.
- .3 Obtain on-site direction from manufacturer regarding proper preparation and installation of injection products. Provide Consultant with a letter of approval from manufacturer for polyurethane injection installation.

1.3 SUBMISSION AND DESIGN REQUIREMENTS

- .1 The Contractor shall submit two copies of manufacturer's specifications for all products incorporated into the crack injection process.

1.4 MATERIAL AND INSTALLATION REQUIREMENTS

- .1 The spacing of the injection ports shall be designed to achieve full penetration of the cracks.
- .2 The temperature of the exterior concrete and the ambient temperature shall be a minimum of 5°C during preparation injection and curing.
- .3 All installation procedures and details shall be completed in full accordance with manufacturer's instructions.
- .4 Where details shown on the drawings or in the specification are not in accordance with manufacturers requirements, notify Consultant.

1.5 RELATED BY-LAWS AND STANDARD SPECIFICATIONS

- .1 Execute work to meet or exceed:
 - .1 National Building Code of Canada 1995 and all local, Municipal and Territorial building by-laws and ordinances including all amendments up to project date.
 - .2 Occupational Health and Safety Act and Regulations for Construction Projects.
 - .3 Canadian Construction Safety Code (latest edition).
 - .4 Canadian Environmental Assessment Act (CEAA), 1995.
 - .5 Rules and regulations of authorities having jurisdiction.

1.6 MEASUREMENT FOR PAYMENT

- .1 Payment shall be a combination of stipulated price and unit rate for areas as indicated on the contract drawings.
- .2 Unit rate payment shall be based on a lineal measurement of cracks injected. Crack injection shall be measured by the Consultants in the presence of the Contractor to the nearest 0.1 metre. The Contractor shall not exceed beyond the limits of the repair areas which have been agreed upon without prior authorization by the Consultant.
- .3 The stipulated price and unit prices for crack injection shall be full compensation for the, surface preparation, port installation, port removal and any other items required to accommodate the work and for the supply and installation of the crack injection material of the type as specified.

1.7 WARRANTY

- .1 The Contractor shall provide a written warranty for a period of 3 years from the date of final completion of the project as certified by the Consultants. The Contractor shall warrant that the crack injection repairs will be free of leakage and or defects related to workmanship or material deficiency. Any repair required under the warranty will be carried out in accordance with the recommendations of the Consultant and material manufacturer.

Part 2 Materials

2.1 POLYURETHANE INJECTION

- .1 Flexible Water Reactive Polyurethane Resin as manufactured by MME Multiurethanes Ltd.
Acceptable product: Flexible Resin Polyurethane, manufactured by Multiurethanes (MME) Ltd., 5245 Creekbank Rd, Mississauga, ON, L4W 1N3

Flexible polyurethane resin: One-component, water-activated type flexible foam, hydrophobic and solvent-free, non-flammable.

Fast-acting with variable curing rates.

Cured product shall not shrink, MDI-based polyurethane prepolymer with accelerator suitable for cold temperature use above 0deg. C, viscosity - 600 cps at 20 degrees C.

- .2 Rapid H100 Water Activated Polyurethane Resin as manufactured by Specton Construction Products Ltd.
- .3 Resfoam HB 45 as manufactured by Mapei
- .4 Or approved equivalent.

2.2 INJECTION PORTS

- .1 The injection ports shall be approved plastic inserts. Surface mounted ports are not acceptable.

Part 3 Execution

3.1 AREAS OF REPAIR

- .1 The general areas requiring repair are identified on the drawings. Contractor to confirm with Consultant the exact areas requiring repair prior to commencing work.
- .2 Contractor will delineate and mark areas indicated by the Consultant.

3.2 POLYURETHANE ELASTOMER GROUT

- .1 Grind the exterior surface areas of the repair areas to remove mineral deposits prior to installation of the repair material.
- .2 Drill inclined holes at 60° through concrete in order that the holes penetrate the crack at roughly mid depth. Spacing of the holes shall not exceed 300mm along the crack. Holes should be of sufficient diameter to correspond to the size requirements of the injection ports.
- .3 Epoxy the injection ports in place and seal between the cracks using containment epoxy if necessary to achieve proper resin material injection into the repair area.
- .4 Carry out injection of all cracks using water to flush out all debris to ensure free flow of injection material.
- .5 Commence injection (using a hand gun, pressure pot or injection machine, the pressure shall not exceed 0.2 MPa, or as stipulated by the injection material.
- .6 Commence work at the lowest port on a vertical face. Continue injection until pure uncontaminated material flows from the adjacent port. The volume of polyurethane material to be used per injection shall equal 1/3 of the volume of the crack to be filled over a 300mm interval.
- .7 Where there is insufficient moisture present in the crack to facilitate the proper reaction with the polyurethane resin, inject a suitable amount of water into each hole to ensure adequate reaction prior to injection of the resin material.

- .8 Pump resin material into injection port until resin material starts to come out of the adjacent port.
- .9 Close the adjacent injection port.
- .10 Repeat steps for all remaining ports.
- .11 The contractor shall re-inspect all repaired locations after 30 day, any areas with continued moisture leakage shall be re-done by the Contractor.

3.3 FINAL CLEANUP

- .1 Upon completion remove all debris and excess material from the site.
- .2 Grind excess material from the surface of the repaired cracks.
- .3 Wash with water all surfaces, including concrete slab, wall, signage, doors, etc., to remove dust. Use high pressure washing except at areas adjacent to exposed lights or sprinkler head, etc., which may be damaged. Low pressure cleansing and brushing as necessary will be required in these areas.
- .4 Prior to leaving the site accompany the Consultant in a final inspection of all work areas.

End of Section 03 07 05

Part 1 General

1.1 SCOPE OF WORK

- .1 Work of this section includes the purchase, installation, setup and testing of monitoring equipment for the concrete dam and earthen berms at the Lake Geraldine Dam and Reservoir, Iqaluit, Nunavut.
- .2 The Contractor shall note that the temperature sensor strings have been installed, only extension cables, data loggers and specified accessories are required as stipulated below.
- .3 This work shall include:
 - .1 Type 1, Sensor and datalogger Casings (earthen berms): Supply and installation of 8" diameter steel casings set into concrete at 9 locations in the North, Center and South berms.
 - .2 Type 2, Sensor and datalogger Casings (downstream face of concrete dam): Supply and installation of 8" diameter steel casings installed atop the concrete dam at the base of the spillway at 2 locations. Cut base on an angle to accommodate the slope concrete surface.
 - .3 Supply, installation and setup of 11 (10 installed and 1 spare) temperature data loggers, cables and accessories.
 - .4 Supply, installation and setup of 6 (5 installed and 1 spare) piezometers (pressure) sensors.
 - .5 Supply, installation and setup of 6 (5 installed and 1 spare) pressure data loggers and accessories.
 - .6 Supply and installation of one water level (WL-1) sensor and data logger on the upstream face of the concrete dam. This work shall include 2" conduit, waterproof metal enclosure, stand and protective galvanized metal cover.
 - .7 Supply and installation of 2" diameter conduit casings and pull boxes at three (3) existing borehole locations (BH#3, 106 & 109).
 - .8 Supply and installation of temperature string extension cables at three (3) locations (BH#103, 106 & 109). Contractor to verify length required at each of the three locations.
 - .9 Supply and installation of 1.5 m temperature string extension cables at three (7) locations (BH#3, 106 & 109).

1.2 RELATED REQUIREMENTS

- .1 Section 03 01 37 Concrete.

1.3 EXISTING MONITORING EQUIPMENT

- .1 Ten temperature monitoring strings have been installed on the downstream (west) side of the dam at 7 (existing) bore hole locations. Some bore holes have two temperature strings installed.

- .2 Four piezometers monitoring wells have been installed on the downstream (west) side of the dam. These four BH locations do not have instruments installed, Contractor to supply 6 piezometers (5 to be installed and one spare).

Table 1, Borehole summary:

Borehole Number	Sensor Number	Sensor Type	Sensor Quantity	Data Logger Type	Datalogger Quantity	Location
BH101	P101-1	Piezometer	1	NX5C	1	North berm
BH102	T102-1	Temperature	2	TSR16	2	North berm
BH103	T103-1	Temperature	1	TSR16	1	North berm
BH105	T105-1	Temperature	2	TSR16	2	Center berm
BH106	T106-1	Temperature	1	TSR16	1	Center berm
BH107	P107-1	Piezometer	1	NX5C	1	Center berm
BH108	T108-1	Temperature	2	TSR16	2	Center berm
BH109	T109-1	Temperature	1	TSR16	1	Center berm
BH112	P112-1	Piezometer	1	NX5C	1	Concrete dam
BH113	P113-1 P113-2	Piezometer	2	NX5C	2	Concrete dam
BH115	T115-1	Temperature	1	TSR16	1	South Berm
Top of Dam	WL-1	Water Level (piezometer)	1	NX5C	1	Upstream face of dam.

1.4 REFERENCE STANDARDS

- .1 CSA Group (CSA)
- .1 CAN/CSA-C22.3 No. 7-10, Underground Systems.
- .2 Rigid PVC conduit: to CSA C22.2 No. 211.2.
- .3 CSA C22.2 NO 211.1, Rigid types EB1 and DB2/ES2 PVC conduit.

Part 2 Products

2.1 TYPE 1 CASINGS

- .1 Eight-inch diameter, length as indicated:
- .2 Acceptable material:
- .1 Primed and painted with two coats of exterior grade paint.
- .2 Steel, 203 mm diameter and lockable cap.
- .3 Fabricate with lockable, cover.
- .4 Quantity required: 9

2.2 TYPE 2 CASINGS

- .1 Eight-inch diameter, 12" length with welded baseplate:
- .2 Acceptable material:
- .1 Primed and painted with two coats of exterior grade paint.
- .2 Steel, 203 mm diameter with baseplate and lockable cap.
- .3 Fabricate with lockable, cover.
- .4 Mechanically fastened to concrete dam.

- .5 Quantity required: 2
- .6 Contractor to cut base of casing to match slope of concrete at base of the spillway.

2.3 PIEZOMETERS (PORUS WATER PRESSURE)

- .1 Strain gauge Piezometer
 - .1 To be installed in boreholes BH101,107,112 and 113 (qty 2).
 - .2 Performance requirements:
 - .1 Accuracy: $\pm 0.1\%$ FS
 - .2 Standard Pressure Ranges: 0 – 10 m Piezometer Nose with sintered stainless steel porous filter.
 - .3 Compensated Temp. Range: -20°C to 80°C
 - .4 Resolution: $<0.025\%$ FS
 - .5 Pressure Output: 4 to 20 mA
 - .6 Acceptable Product: RST Instruments, model number VW2100-m strain gauge piezometer
 - .3 Quantity required: 6

2.4 PIEZOMETERS (WATER DEPTH)

- .1 Strain gauge Piezometer
 - .1 To be installed in boreholes WL-1.
 - .2 Performance requirements:
 - .1 Measurement Range: 0 - 10 m
 - .2 Pressure sensor (capacitive pressure sensor): Ceramic
 - .3 Pressure Output: 4 to 20 mA
 - .4 Temperature measurement
 - .1 Measuring range: -25°C ... $+70^{\circ}\text{C}$
 - .2 Resolution: 0.1°C / 0.1°F
 - .3 Accuracy: $\pm 0.5^{\circ}\text{C}$ / $\pm 0.9^{\circ}\text{F}$
 - .4 Units: $^{\circ}\text{C}$, $^{\circ}\text{F}$
 - .5 Dimensions L x Ø: 195 mm x 22 mm
 - .6 Acceptable Product: OTT PLS, available for Hoskin Scientific.
 - .3 Quantity required: 2

2.5 TEMPERATURE DATA LOGGER

- .1 TSR16 Thermister string Data Logger, complete with.
 - .1 Ring tight metal case.
 - .2 1 USB mini communications cable.
 - .3 17 conductor metal thermistor string connector.
 - .4 Quantity required: 11

- .2 Power: 4AA, Ultimate lithium batteries per data logger.
 - .1 Quantity required: 52
- .3 Supplied by Lakewood Systems Ltd., #112-9704-39 Avenue, Edmonton, Alberta, Phone number: 780-462-9110.

2.6 NANO PRESSURE (PIEZOMETER) DATA LOGGER

- .1 NX5C Data Logger complete with:
 - .1 4 analog channel (0-2.5 or 4-20 mA)
 - .2 1 strobe (RG) channel
 - .3 USB communications port and cable.
 - .4 9v battery clip
 - .5 Ethernet type input plug.
 - .6 Optional internal temperature and voltage channel.
 - .7 Quantity required: 7
- .2 Power: 1 x 9v, lithium batteries per data logger.
 - .1 Quantity required: 14
- .3 Supplied by Lakewood Systems Ltd., #112-9704-39 Avenue, Edmonton, Alberta, Phone number: 780-462-9110.

2.7 COMMUNICATIONS CABLE FOR REMOTE DATALOGGER HOUSING

- .1 Communication cable for remote data logger housing.
- .2 Model number: CCRDH
- .3 Quantity required: 16
- .4 Supplied by Lakewood Systems Ltd., #112-9704-39 Avenue, Edmonton, Alberta, Phone number: 780-462-9110.

2.8 COMMUNICATION CABLE FOR DATA RETRIEVAL

- .1 Model number: SP
- .2 Quantity required: 4
- .3 Supplied by Lakewood Systems Ltd., #112-9704-39 Avenue, Edmonton, Alberta, Phone number: 780-462-9110.

2.9 DATA LOGGER SOFTWARE

- .1 ProLog4 Datalogger software, Windows operating system.
- .2 Quantity: Two License

2.10 TEMPERATURE STRING EXTENSION

- .1 Extension cable for (existing) temperature string data retrieval, complete:
 - .1 Male and female connectors (MS3106E 20-29P style connector).
 - .2 Pin M is common connection.

- .3 Remaining pins are wired from Pin A to Pin T.
- .4 Quantity required: 3, contractor to verify length on site.
- .5 Quantity required: 7 @ 1.5 meters in length.
- .6 Manufactured by: M²

2.11 WATER LEVEL ENCLOSURE

- .1 Lockable, exterior grade, waterproof metal enclosure with access door.
- .2 Contractor to provide steel base to secure enclosure to concrete dam.
- .3 Minimum dimensions: 310 mm x 310 mm

2.12 WATER SENSOR PROTECTIVE ENCLOSURE:

- .1 18 Ga, galvanized metal cover for new water level sensor and conduit.
- .2 Secure with corrosion resistant, concrete fasteners to side of concrete dam at 310 mm OC.

2.13 CONDUIT

- .1 Type: DB-60 direct burial, PVC rigid conduit.
- .2 Inside Diameter: 2"
- .3 Connectors and accessories as required.

2.14 BENTONITE SEAL

- .1 Install bentonite seal in each of the designated borehole locations on the downstream side of the dam.
- .2 Borehole numbers:
 - .1 BH101, qty 1.
 - .2 BH107, qty 1.
 - .3 BH112, qty 1.
 - .4 BH113, qty 2.

Part 3 Execution

3.1 INSTALLATION

3.2 GENERAL

- .1 Do complete installation in accordance with requirements of:
 - .1 CSA 22.1 Canadian Electrical Code.
- .2 Do underground installation to CAN/CSA-C22.3 No.7, except where otherwise specified.
- .3 Conform to manufacturer's recommendations for storage, handling and installation.

3.3 CONDUIT SYSTEM

- .1 Conduit enclosures for temperature string sensors shall be provided at bore hole numbers BH103, BH106, BH109 and WL-1.
- .2 Temperature string extension cable shall be installed in 2" rigid PVC conduit.
- .3 Provide complete conduit system to link temperature strings to data logger in casings.
- .4 Design drawings show approximate bore hole, conduit and casing installation layout.
- .5 Install 2" conduits between 12" – 16" below grade.
- .6 Install conduits, and casings prior to pouring of concrete.
- .7 Bend conduit so that diameter is reduced by less than 1/10th original diameter.
- .8 Leave polypropylene fish cord in conduits for future use.
- .9 Pull boxes:
 - .1 Install at junction of thermistor string cable and temperature string extension cable.
 - .2 Provide correct size of openings.
 - .3 Mark location of pull boxes on record drawings.

3.4 CASING INSTALLATION

- .1 Type I Casing
 - .1 Install at thirteen (9) locations identified within the design drawings.
 - .2 Install as indicated in the design drawings.
 - .3 Install casing for bore holes BH103, BH106 and BH109 at top of berm.
 - .4 Install casing with top of casing 24" above grade.
 - .5 Install base of metal casings to a depth of 48" below grade.
 - .6 Install casing level and plum.
 - .7 Contractor to fabricate lockable cap for each data logger.

3.5 TEMPERATURE STRING EXTENSION CABLE

- .1 Install temperature string extension cables and rigid PVC conduits at bore hole locations:
 - .1 BH103, BH106 and BH109. Length of conduit and extension cable to be verified on site by the contractor.
 - .2 Supply and install 1.5 meter long extension cables at all remaining temperature string monitoring stations, quantity required: 7.
- .2 Do not put spliced wiring inside conduits.
- .3 Connect female end of temperature string extension cable to male end of temperature string data cable installed within existing bore hole (3) locations.
- .4 Use CSA certified lubricants of type compatible with insulation to reduce pulling tension.

3.6 SENSORS AND DATA LOGGER

- .1 Contractor to deliver all sensors, data loggers and accessories to the Consultant for testing and configuration. The Consultant will ship the equipment to the Contractor in Iqaluit after testing and configuration.

3.7 PIEZOMETER INSTALLATION

- .1 Install piezometer in locations specified. Boreholes numbered:
 - .1 BH101, qty 1.
 - .2 BH107, qty 1.
 - .3 BH112, qty 1.
 - .4 BH113, qty 2.
- .2 Contractor to test piezometer function after installation within each borehole.
- .3 Contractor to install a 300 mm (12”) bentonite seal above the piezometer after installation and testing of the piezometer.
- .4 Fill remainder of bore hole with clear sand.

3.8 DATA LOGGER INSTALLATION

- .1 Install one data logger per sensor, this shall include:
 - .1 Quantity 10: TSR16 temperature data loggers.
 - .2 Quantity 6, NX5C pressure data loggers.
- .2 Install data loggers within casing vertically with one or two data loggers per casing. See design drawings for type and quantity of data loggers to be installed at each location.
- .3 Connect sensor data cable to data logger in conformance with the manufacturer’s installation instructions.
- .4 Install USB communication cable and connect one end to the data logger, the second end shall be mounted through the communications port opening within the side of the metal casing to allow data collection. Contractor to drill data cable port in each casing.
- .5 Test data logger and communication cabling and verify data collection of the data logger.
- .6 Data logger setup and configuration to be completed by the Consultant.
- .7 Once data logger functionality has been tested install cap and secure with locks. Provide Three keys per lock to the City of Iqaluit representative.
- .8 Provide software and license key to City of Iqaluit representatives and Consultant.

END OF SECTION

Part 1 General

1.1 SCOPE OF WORK

- .1 Supply, installation and surveying of new survey monuments to be install within the earthen berms and concrete dam. This work shall include:
 - .1 Five (5) monuments to be installed within the earthen berms.
 - .2 Three (3) survey monuments to be installed within the concrete dam.
 - .3 Survey of datum points for each survey monument relative to the geodetic survey of Canada bench mark.

1.2 REFERENCE STANDARDS

- .1 ASTM International (ASTM)
 - .1 ASTM A252, Standard Specification for Welded and Seamless Steel Pipe Piles.
- .2 CSA Group (CSA)
 - .1 CAN/CSA-G40.20/G40.21, General Requirements for Rolled or Welded Structural Quality Steel/Structural Quality Steels.
- .3 The Master Painters Institute (MPI)/Architectural Painting Specification Manual, (ASM).
- .4 The Society for Protective Coatings (SSPC)
 - .1 SSPC-SP5/NACE No.1, White Metal Blast Cleaning Joint Surface Preparation Standard.

1.3 SYSTEM DESCRIPTION

- .1 Survey monuments to be installed within the earthen berms shall consist of the following:
 - .1 140 mm diameter, steel piles filled with and set within concrete.
 - .2 Installation of a brass survey markers.

1.4 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data: submit manufacturer's printed product literature, specifications and datasheet.
 - .1 Include product characteristics, performance criteria, and limitations.
- .3 Submit shop drawings and indicate following items:
 - .1 Materials.

Part 2 Products

2.1 MATERIALS

- .1 Eight-inch diameter, length as indicated:
- .2 Acceptable material:
 - .1 Primed and painted with two coats of exterior grade paint.
 - .2 Steel, 146 mm diameter and lockable cap.
 - .3 Quantity required: 9
- .3 Concrete:
 - .1 30 MPa with air entrainment
- .4 Brass Monument.
 - .1 Material: Brass
 - .2 Size:
 - .1 50 to 75 mm diameter with raised datum point and small center dimple.
 - .2 Minimum 64 mm shaft
 - .3 Each survey monument shall be numbered BM-1 through BM-8, as indicated in the design drawings.

Part 3 Execution

3.1 INSTALLATION

- .1 Install new survey monuments as indicated within the design drawings.
- .2 Ensure survey monuments are positioned where indicated in design drawings prior to placement of concrete around the base of the steel casing.
- .3 Survey monument must be plumb within 3 mm at the top of the monument in both the X and Y axis.
- .4 Position and anchor the brass survey marker in the center of the survey monument. Ensure brass marker is level.

3.2 SURVEY DATA

- .1 Once the survey monuments have been placed and the concrete has cured, survey each data point relative to the Geodetic Survey of Canada bench mark on the hill west of the dam.
- .2 Information to be recorded shall include:
 - .1 Surveyor Firm.
 - .2 Surveyor.
 - .3 Surveyor assistant.
 - .4 Date
 - .5 Instrument make.
 - .6 Instrument model.

- .7 Instrument serial number.
- .3 Information to be obtained for each survey monument installed shall include:
 - .1 Monument ID number.
 - .2 Northing
 - .3 Easting.
 - .4 Elevation.
 - .5 Azimuth to Monument.
 - .6 Distance to Monument.
- .4 Information obtained shall be recorded in the form provided by the Consultant.

END OF SECTION

Part 1 General

1.1 DESCRIPTION

- .1 This section describes requirements that apply to construction involving work in waterbodies and waterbody banks.

1.2 REFERENCE STANDARDS

- .1 Department of Fisheries and Oceans
 - .1 Nunavut Restricted Activity Timing Windows for the Protection of Fish and Fish Habitat.

1.3 REQUIREMENTS

- .1 Two copies of a written strategy shall be submitted to the Consultant for review and for permission to proceed with the work. This strategy shall be submitted a minimum of 10 Working Days prior to the commencement of work.
- .2 The strategy shall provide descriptions, working drawings, and schedules that fully describe the sequence of the work, the associated waterbody and fish habitat protection, and the related contingency measures associated with each stage of the work. The schedule shall include approximate date of installation, removal, and site restoration. Such information shall be provided at a level of detail, which addresses materials, equipment, methods employed, and procedures to be followed to provide effective waterbody and fish habitat protection and to comply with statutory authorizations, approvals and permits. The submission shall also include a schedule of checking and monitoring the work to ensure compliance with the strategy.
- .3 The strategy shall apply to:
 - .1 Phases of the work, and transitions between phases of the work;
 - .2 The installation, operation, and removal of waterbody and fish habitat protection measures, and transitions between any adjacent environmental protection including temporary erosion and sediment control measures;
 - .3 The interfaces between waterbodies and temporary water passage systems;
 - .4 The containment or stabilization of disturbed earth material, including during the winter period and other shutdown periods, to prevent entry of such materials into waterbodies.
- .4 The Consultant shall respond within 10 Working Days to each submission or resubmission by either giving permission to proceed, or returning the submission marked "Revise and Resubmit", and giving reasons.
- .5 Permission to proceed shall not constitute acceptance of the technical adequacy of the strategy.
- .6 Written notification shall be submitted to the Consultant two days prior to the actual date of installing or removing protection measures.

- .7 The contractor shall ensure the site lead (superintendent, foreman or otherwise in-charge person) fully understands the requirements of the EPP and acknowledges this awareness with in writing.
- .8 The Contractor shall provide environmental awareness training for all personnel working on the site.
- .9 The Contractor shall ensure the project work is carried out in strict accordance with the requirements of the approving authorities and the EPP.

1.4 EQUIPMENT

- .1 Equipment used for work in waterbodies, on waterbody banks, watercourse relocations, and temporary waterbody crossings shall be free of earth material, and excess, loose or leaking fuel, lubricants, coolant and other contaminants that could enter the waterbody.

1.5 CONSTRUCTION

- .1 General Requirements
 - .1 The work shall be controlled to provide effective waterbody and fish habitat protection. The work shall be monitored, and whenever such protection is found to be ineffective, the Engineer shall be advised. Changes to the work shall be made immediately to ensure waterbody and fish habitat protection, and an amendment to the strategy shall be submitted within 10 calendar days.
 - .2 Staff on site shall be briefed about the strategy required in Section 1.2 (Requirements) and their role in its implementation
 - .3 Unless specified in the Contract Documents, watercourses shall not be diverted, relocated, or blocked, waterbodies shall not be filled, and temporary waterbody crossings shall neither be constructed nor utilized.
 - .4 Unless work is specified in waterbodies or on waterbody banks, vehicles and equipment shall not enter or be operated within such areas.
 - .5 Temporary erosion and sediment control measures shall be installed prior to commencing the associated work including the removal of vegetative cover, and shall remain effective at all times, including shut down periods.
 - .6 Vehicular maintenance, washing and refuelling shall be conducted away from waterbodies and waterbody banks. All equipment maintenance and refuelling shall be controlled to prevent any discharge of equipment fuels and fluids onto the ground or into waterbodies.
 - .7 Storage of fuel, other materials required for vehicles, and waste oils/lubricants will be stored in leak-proof containers in a secured area and as far away from the water as practicable to prevent any spills or leaks from impacting the water body.
 - .8 An emergency spill kit should be kept on-site in case of fluid leaks or spills from machinery.
 - .9 Excess materials, construction debris, containers, and stockpiles of erodible materials shall be stored to prevent them from entering a waterbody. Such storage areas shall be a minimum of 30 m from a waterbody or temporary watercourses channels.

- .10 Pumping water that contains suspended materials into the water course is prohibited.
- .11 Waste bins designated for general refuse should be placed on-site.
- .12 When working in waterbodies or on waterbody banks:
 - .1 The work area shall be isolated from those portions of the waterbody or waterbody banks wherein work is not specified.
 - .2 The extent of disturbance to waterbody bed and banks shall be kept to the minimum necessary for the construction specified in the Contract Documents.
 - .3 The limit of the area to be disturbed shall be clearly marked prior to commencement of the work. The markings shall be maintained for the duration of the Contract.
 - .4 The work shall not commence while flows are in flood stage
 - .5 Construction shall be halted during periods of heavy precipitation and/or runoff.
 - .6 Vegetation shall be preserved where possible.
 - .7 The operation of equipment within such areas, shall be kept to the minimum necessary to perform the specified work.
 - .8 The number of entry and exit points, and the distance from the entry point to the work area, shall be kept to the minimum necessary to perform the specified work. Access to the site should wherever possible, be restricted to existing roads and trails.
 - .9 The work and all subsequent site completion and restoration activities shall proceed in a continuous fashion so as to minimize its duration.
 - .10 A shroud shall be installed beneath the bridge to trap and prevent construction materials from entering the water course.
 - .11 Effective bank erosion control measures such as filter cloth, rock, matting or polyethylene etc. must be installed prior to start of work.
 - .12 Eroded sediment shall be contained on-site using devices such as silt fences or sediment traps.
 - .13 The work shall be conducted so as to prevent harm to fish and aquatic wildlife and to allow fish passage.

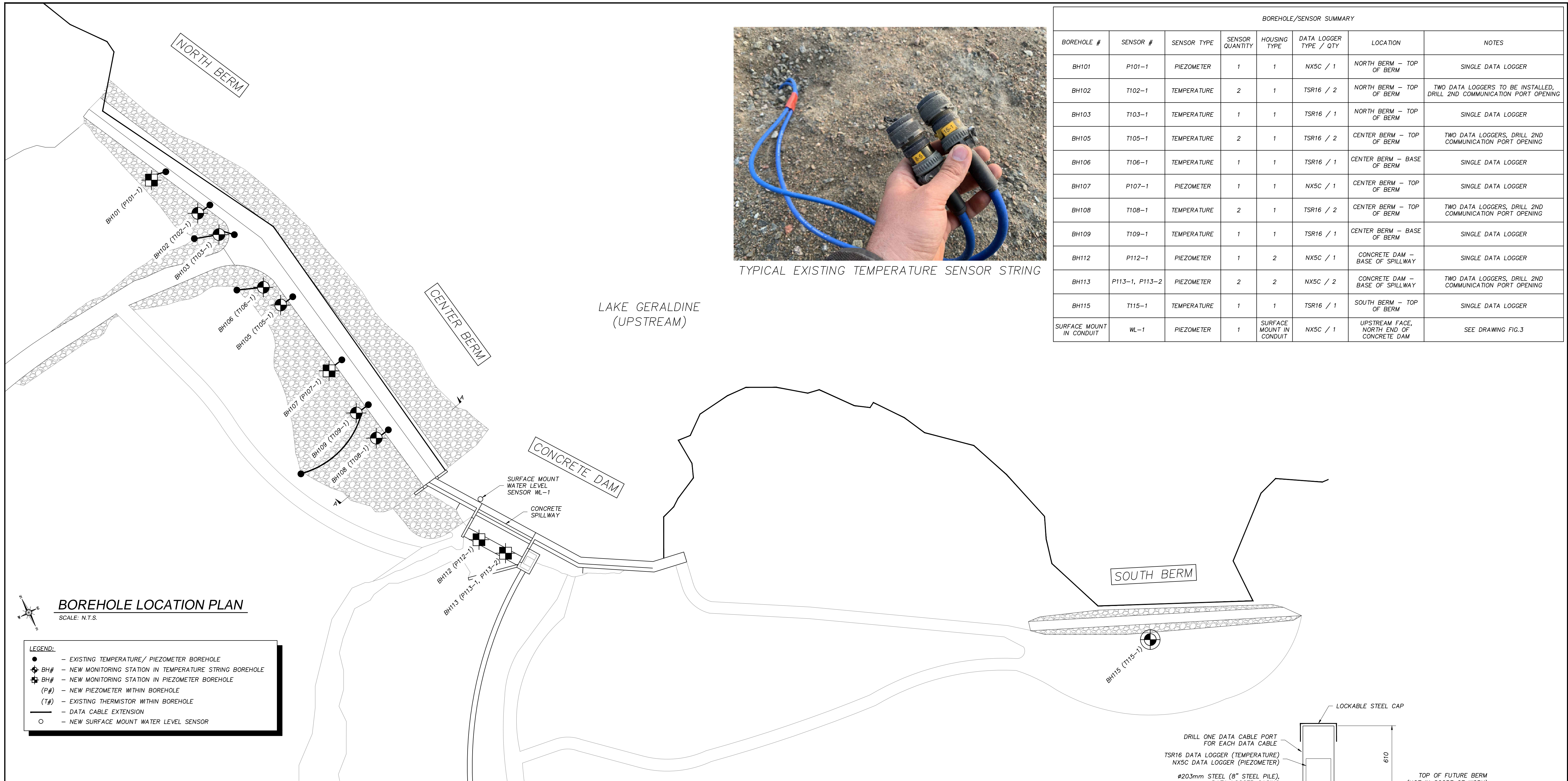
1.6 SITE RESTORATION

- .1 The waterbody and waterbody banks shall be restored to their original conditions if disturbance occurs.

1.7 CONTINGENCY MEASURES

- .1 A standby supply of pre-fabricated silt fence barrier, or an equivalent ready-to-install sediment control device, sufficient to extend a linear distance of 200 m, shall be maintained at the contract site at all times, including shut down periods, for immediate deployment.

END OF SECTION 35 42 19



TYPICAL EXISTING TEMPERATURE SENSOR STRING

BOREHOLE/SENSOR SUMMARY						
BOREHOLE #	SENSOR #	SENSOR TYPE	SENSOR QUANTITY	HOUSING TYPE	DATA LOGGER TYPE / QTY	LOCATION
BH101	P101-1	PIEZOMETER	1	1	NX5C / 1	NORTH BERM - TOP OF BERM
BH102	T102-1	TEMPERATURE	2	1	TSR16 / 2	NORTH BERM - TOP OF BERM
BH103	T103-1	TEMPERATURE	1	1	TSR16 / 1	NORTH BERM - TOP OF BERM
BH105	T105-1	TEMPERATURE	2	1	TSR16 / 2	CENTER BERM - TOP OF BERM
BH106	T106-1	TEMPERATURE	1	1	TSR16 / 1	CENTER BERM - BASE OF BERM
BH107	P107-1	PIEZOMETER	1	1	NX5C / 1	CENTER BERM - TOP OF BERM
BH108	T108-1	TEMPERATURE	2	1	TSR16 / 2	CENTER BERM - TOP OF BERM
BH109	T109-1	TEMPERATURE	1	1	TSR16 / 1	CENTER BERM - BASE OF BERM
BH112	P112-1	PIEZOMETER	1	2	NX5C / 1	CONCRETE DAM - BASE OF SPILLWAY
BH113	P113-1, P113-2	PIEZOMETER	2	2	NX5C / 2	CONCRETE DAM - BASE OF SPILLWAY
BH115	T115-1	TEMPERATURE	1	1	TSR16 / 1	SOUTH BERM - TOP OF BERM
SURFACE MOUNT IN CONDUIT	WL-1	PIEZOMETER	1	SURFACE MOUNT IN CONDUIT	NX5C / 1	UPSTREAM FACE, NORTH END OF CONCRETE DAM

NO.	ISSUED FOR	DATE
1	ISSUED FOR 99% REVIEW	MAR. 25, 2022
2	ISSUED FOR TENDER	APR. 28, 2022
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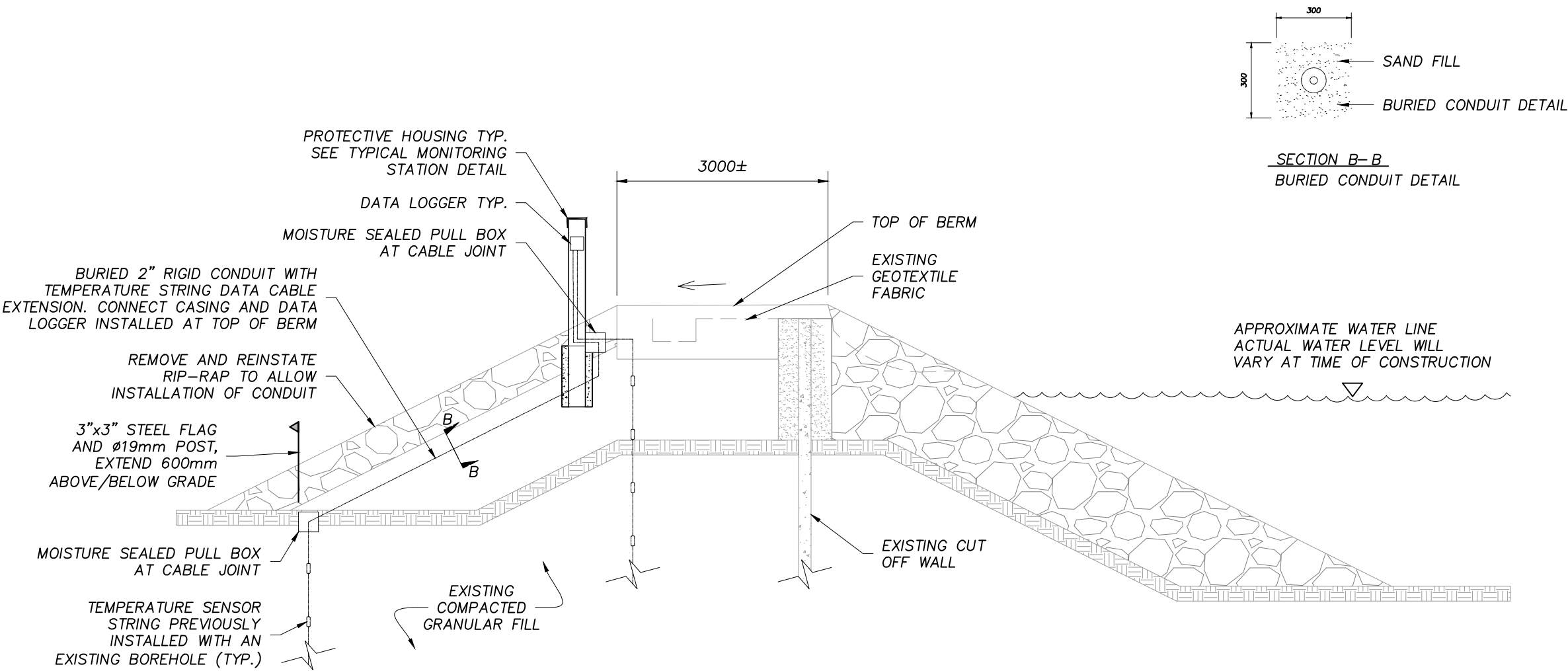
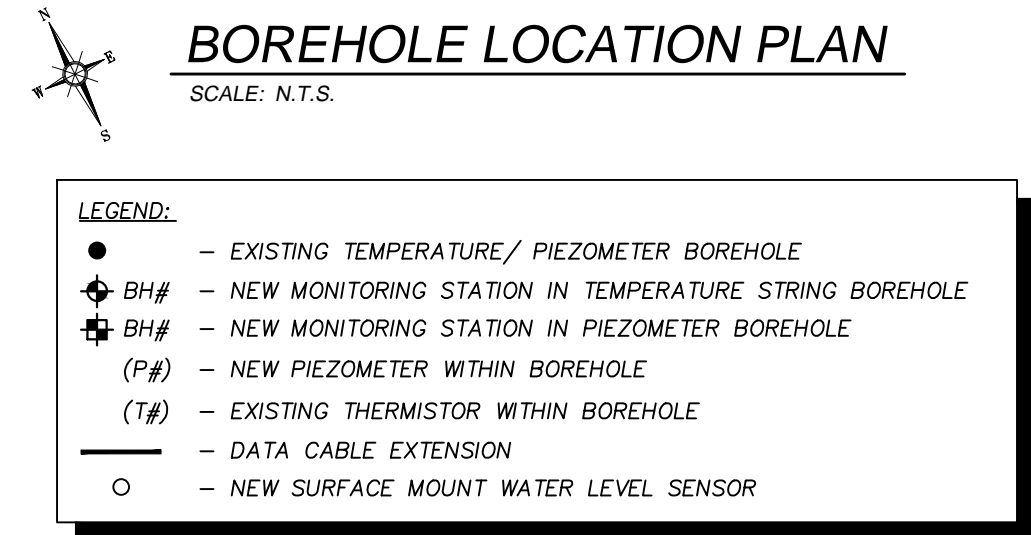
NOTES:

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND BE RESPONSIBLE FOR REPORTING DISCREPANCIES TO CONSULTANT PRIOR TO CONSTRUCTION.

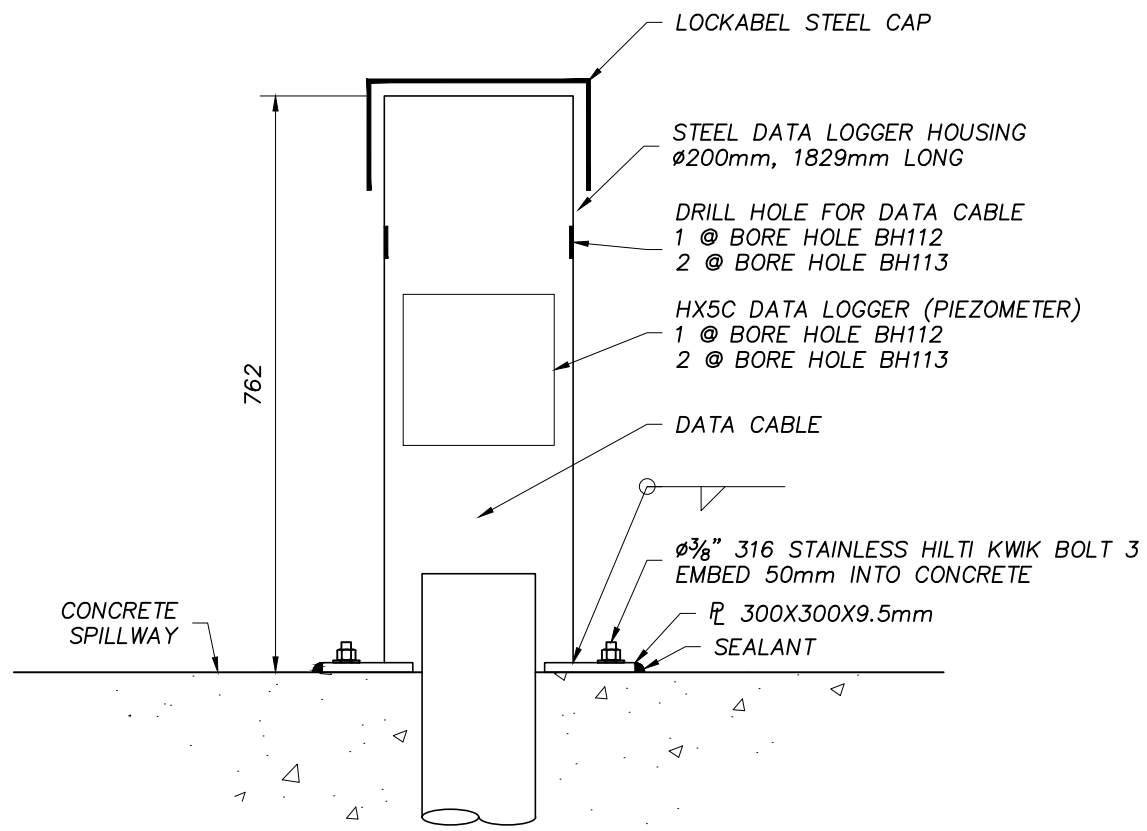
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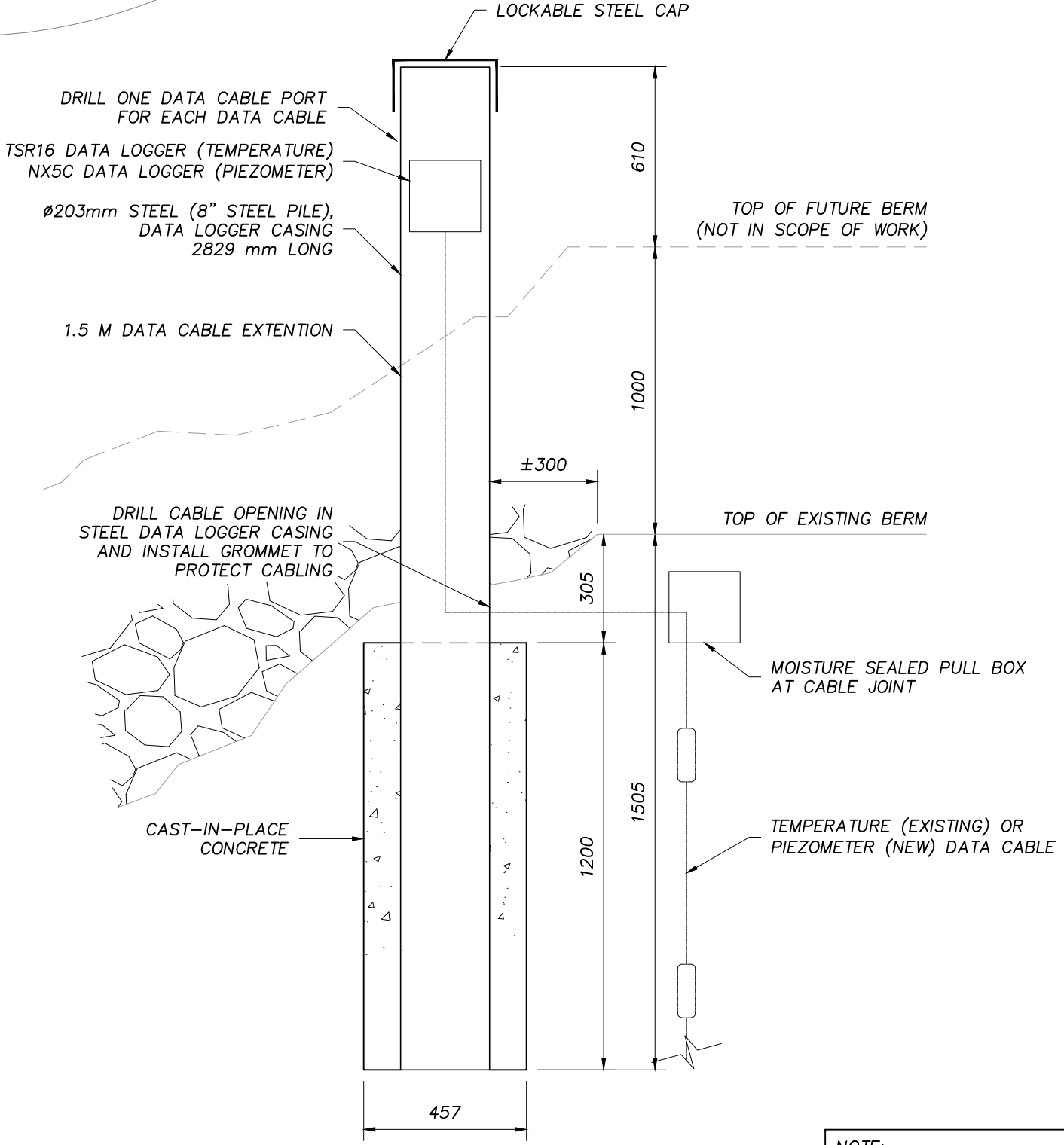
- SCOPE OF WORK:
- SUPPLY AND INSTALLATION OF DATA LOGGERS AND CABLES.
 - INSTALLATION OF 5 SURVEY MONUMENTS ALONG THE NORTH AND CENTER BERMS.
 - INSTALLATION OF 3 SURVEY MONUMENTS WITHIN THE CONCRETE DAM.
 - 15 LINEAR METERS OF CONCRETE CRACK INJECTION.
 - 2 SQUARE METERS OF CONCRETE DELAMINATION REPAIR.
 - INSTALLATION OF 10 MONITORING STATIONS ALONG THE NORTH, CENTER, AND SOUTH BERMS.
 - INSTALLATION OF 2 MONITORING STATIONS AT THE BASE OF THE CONCRETE SPILLWAY.
 - INSTALLATION OF WATER LEVEL SENSOR WL-1.



SECTION A-A - TYPICAL THERMISTOR @ BERM
SCALE: 1:75



SPILLWAY MONITORING STATION
SCALE: 1:10



TYPICAL NEW MONITORING STATION
SCALE: 1:16

NOTE:

- BOREHOLES BH102, BH103, BH105, AND BH108 HAVE TWO DATA LOGGERS. CONTRACTOR TO DRILL 2ND COMMUNICATIONS PORT OPENING.

PERMIT TO PRACTICE
Concentric Associates International Inc.
Signature: _____
Date: 04/28/2022
PERMIT NUMBER: P 492
The Association of Professional Engineers,
Geologists and Geophysicists of the NWT / NU

PROFESSIONAL SEAL
REGISTERED PROFESSIONAL ENGINEER
S.T. PARKER
LICENSED
04/28/2022
NT/NU

CONCENTRIC
CLIENT-CENTRIC. CHALLENGE DRIVEN.
5109 QAQQALIAQ AVE.
IQALUIT, NU X0A 0H0
1-866-919-4531

CLIENT NAME: CITY OF IQALUIT
PROJECT ADDRESS: IQALUIT, NUNAVUT
PROJECT NAME: LAKE GERALDINE DAM 2021 REHABILITATION PROGRAM
DRAWING TITLE: SENSOR BOREHOLE LOCATIONS PLAN AND SECTIONS
DATE: JUL 2021 PROJECT No: 21-9162
PROJECT MGR: KPT SHEET No: _____
DRAWN BY: SAM
APPROVED BY: STP

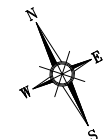
NOTES:

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PRINTS ARE NOT TO BE SCALED.

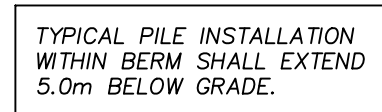
SCOPE OF WORK:

- _____



SCALE: N.T.S.

NOTE: TIE ALL SURVEY MONUMENTS TO GEODETIC SURVEY OF CANADA BENCH MARK / MONUMENT LOCATED ON HILL WEST OF DAM.



SCALE: 1:10

QTY: 5



SCALE: 1:10

QTY: 3



EXISTING
SECURITY GATE

— APPROXIMATE GRADE LEVEL



SCALE: 1:100

SCALE: 1:100

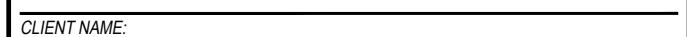
PROFESSIONAL SEALS

REGISTERED PROFESSIONAL ENGINEER

S.T. PARKER

LICENSEE
04/28/2022

NT/NU



CITY OF IQALUIT

PROJECT ADDRESS: _____

IQALUIT, NUNAVUT

PROJECT NAME: _____

LAKE GERALDINE DAM 2021
REHABILITATION PROGRAM

DRAWING TITLE:

PLAN AND DETAILS

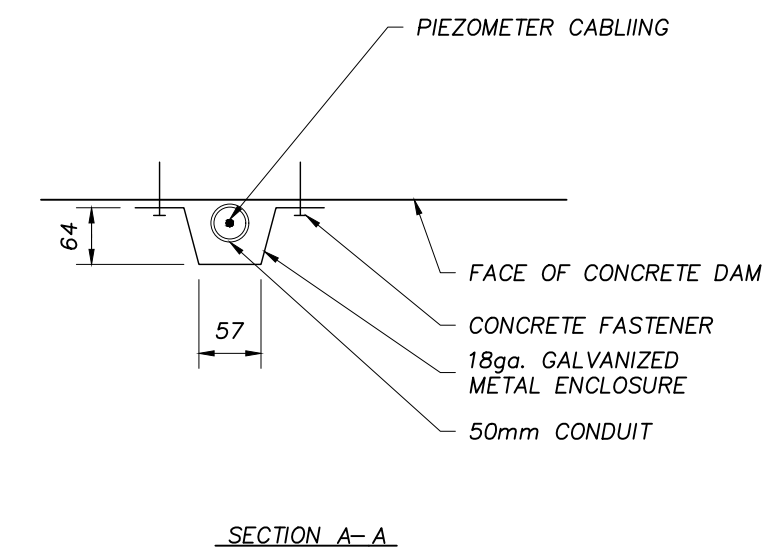
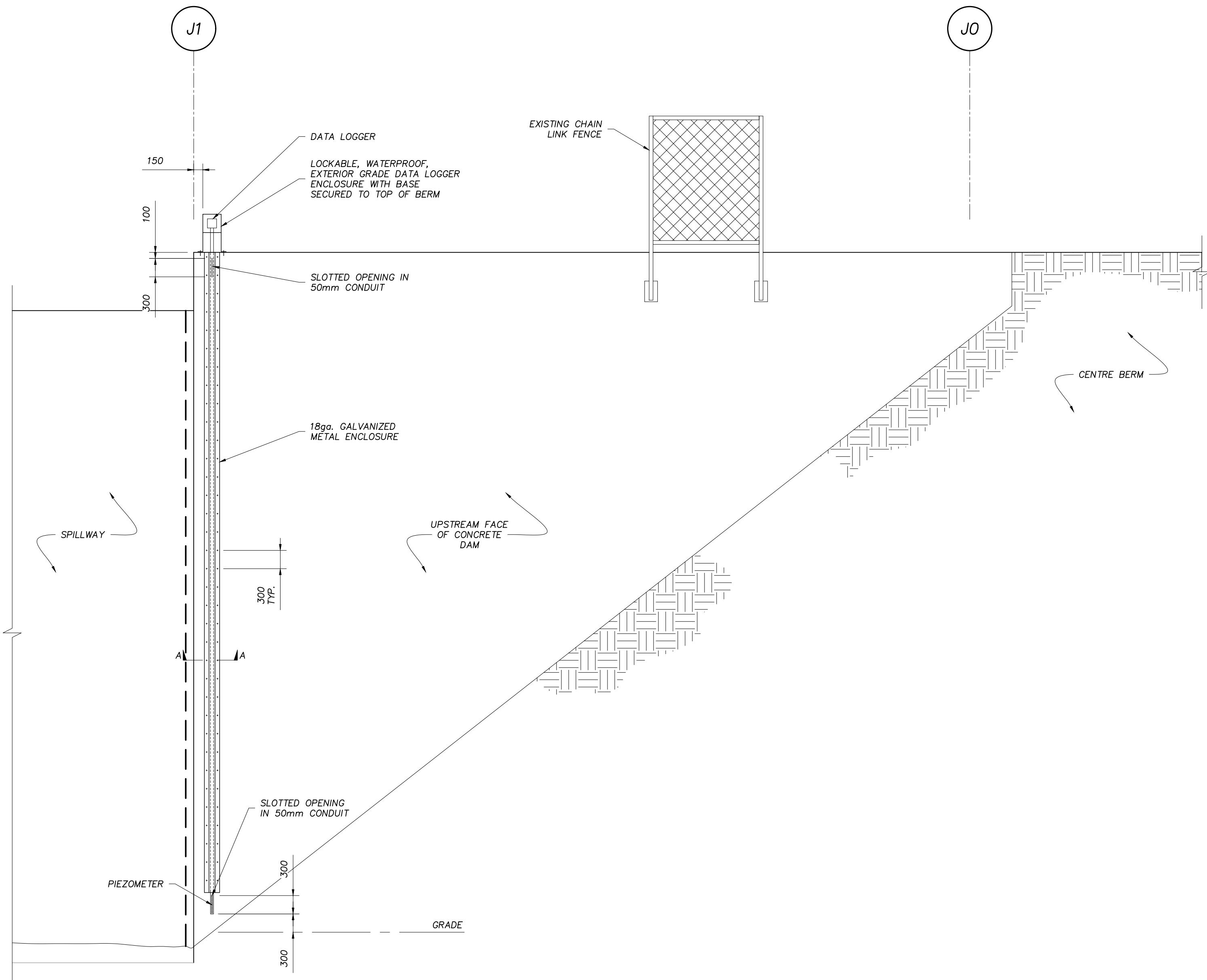
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DATE:	JUL/2021	PROJECT NO:	21-9102
PROJECT MGR:	KPT	SHEET No.	

FIG. 2

DRAWN BY: SAM FIG. 2

FIG. 2



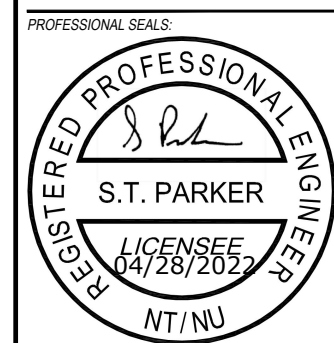
WATER DEPTH SENSOR INSTALLATION
SCALE: 1:50

NO	ISSUED FOR	DATE
1	ISSUED FOR 99% REVIEW	MAR. 25, 2022
2	ISSUED FOR TENDER	APR. 28, 2022
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 - INSTALLATION OF WATER LEVEL SENSOR WL-1.

PERMIT TO PRACTICE	
Concentric Associates International Inc.	
Signature	
Date	04/28/2022
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CLIENT NAME:	CITY OF IQALUIT		
PROJECT ADDRESS:	IQALUIT, NUNAVUT		
PROJECT NAME:	LAKE GERALDINE DAM 2021 REHABILITATION PROGRAM		
DRAWING TITLE:	WATER DEPTH SENSOR		
DATE:	JUL 2021	PROJECT NO:	21-9162
PROJECT MGR:	KPT	SHEET NO:	
DRAWN BY:	SAM		
APPROVED BY:	STP		