



**FACILITIES MANAGEMENT,
GRENFELL CAMPUS**

OPEN CALL FOR BIDS

FOR

**MECHANICALSYSTEMS &
CONTROLS
MAINTENANCE SERVICE
CONTRACT FOR
CORNER BROOK AND
BONNE BAY, NORRIS
POINT**

Request for Open Call Number: **TGC-037-25**

Issued: **August 14, 2025**

Submission Deadline: **Thursday, September 11, 2025**
@ 10:00 AM NDT

REQUEST FOR OPEN CALL FOR BIDS INFORMATION SHEET

Request for Open Call			
Title:	Mechanical Systems & Controls Maintenance Service Contract for Corner Brook and Bonne Bay Marine Station, Norris Point		
Open Call #:	TGC-037-25	Issue Date:	August 14, 2025
Questions Deadline:	72 hours prior to close time	Closing Date & Time:	Thursday Sept 11, 2025 @ 10:00 AM NDT
		Bid Submission Format:	opencalls@mun.ca
		Opening Date, Time & Location:	Thursday, Sept 11, 2025 @ 10:30 AM NDT Via Conference line: 1-416-915-6530 (toll free) Access Code: 2771 462 2672 Attendee ID: Please press Pound(#)
Bids Irrevocable Period after Submission Deadline:			90 days
Bid Submission: Responses to this solicitation must be submitted by email to <u>opencalls@mun.ca</u> Email subject line must read: <u>BID SUBMISSION: TGC-037-25 Mechanical Systems & Controls Maintenance Service Contract for Corner Brook and Bonne Bay Marine Station, Norris Point</u>			
Inquiries and Communication:			
Inquiries and communication: Financial and Administrative Services, Strategic Procurement Office, Memorial University of Newfoundland, <u>opencalls@mun.ca</u> . Inquiries accepted only via email. No phone calls will be accepted. Please reference <u>TGC-037-25 Mechanical Systems & Controls Maintenance Service Contract for Corner Brook and Bonne Bay Marine Station, Norris Point</u> in subject line. Emails not containing this requirement information in the subject line will NOT be responded to.			
<u>Bids submitted by fax, mail, courier, drop off or by any other means of delivery other than by email stated above shall not be accepted.</u>			

ABOUT MEMORIAL UNIVERSITY

As Newfoundland and Labrador's only university, Memorial has a special obligation to the people of this province. Established as a memorial to the Newfoundlanders who lost their lives on active service during the First and Second World Wars, Memorial University draws inspiration from these shattering sacrifices of the past as we help to build a better future for our province, our country and our world.

We are a multi-campus, multi-disciplinary, public university committed to excellence in teaching and learning, research and scholarship, and to public engagement and service. We strive to have national and global impact, while fulfilling our social mandate to provide access to university education for the people of the province and to contribute to the social, cultural, scientific and economic development of Newfoundland and Labrador and beyond.

The Memorial experience goes beyond academics; it invites a discovery of self, community and place. At Memorial, we celebrate our unique identity through the stories of our people – the work of scholars and educators, the ingenuity of students, the achievements of alumni – and the impact we collectively make in the province, the country and the world. Memorial is the natural place where people and ideas become.

Memorial University has more than 18,500 students and 3,600 faculty and staff spread across four campuses and nearly 100,000 alumni active throughout the world. From local endeavors to research projects of national importance, Memorial's impact is felt far and wide.

Mission, Vision and Values

Vision

Memorial University will be one of the most distinguished public universities in Canada and beyond, and will fulfill its special obligation to the people of Newfoundland and Labrador.

Mission

Memorial University is an inclusive community dedicated to innovation and excellence in teaching and learning, research, scholarship, creative activity, service and public engagement.

Memorial welcomes and supports students and scholars from all over the world and contributes knowledge and expertise locally, nationally and internationally.

Values

Excellence: Encouraging and promoting excellence through innovation and creativity, rigor and pragmatism.

Integrity: Being honest and ethical in all interactions, maintaining the highest ethical standards in teaching, research, public engagement and service.

Collegiality: Engaging others with respect, openness and trust in pursuit of a common purpose, having regard for individuals, ideals and the institution as a whole.

Inclusiveness and diversity: Embracing and acting on responsibility to guarantee diversity and equity.

Responsiveness: Being receptive to individuals and communities.

Accountability: Accepting responsibility for achievement of common goals and objectives.

Freedom and Discovery: Supporting the freedom to pursue knowledge that is based on individual and collective intelligence, curiosity, ingenuity and creativity.

Recognition: Acknowledging, tangibly, all aspects of university enterprise including teaching and learning, research, scholarship, creative activity and public engagement.

Responsibility to place: Valuing and fulfilling the special obligation to the people of Newfoundland and Labrador by supporting and building capacity for excellence that:

- addresses needs and opportunities for Newfoundland and Labrador;
- engages the university community on matters of national and international significance;
- produces and delivers academic programs of national and international calibre; and,
- Recognizes the dynamic opportunities presented by a multi-campus institution.

Responsibility to learners: Recognizing students as a first priority and providing the environment and support to ensure their academic and personal success.

Interdisciplinary collaboration: Supporting overarching themes in all pursuits that cut across academic units and address significant opportunities and challenges for which Memorial is particularly well positioned to build nationally and internationally recognized capacity.

Sustainability: Acting in a manner that is environmentally, economically and socially sustainable in administration, academic and research programs.

Memorial's exceptional staff and students contribute to the vitality and positive environment of the university through active community engagement. Memorial University has always been a publicly engaged institution. Since the founding of the University in 1949, the work of many of Memorial's students, faculty and staff has emphasized the importance of strong, sustained partnerships with members of the public of Newfoundland and Labrador and beyond.

Faculty and Staff

Memorial is one of the largest employers in the province, with approximately 3,600 faculty and staff. Memorial has been recognized as an Employer of Distinction by the Newfoundland and Labrador Employers' Council, which is reflective of its investment in comprehensive benefits, services such as childcare and recreation facilities, emphasis on work-life balance, and its vibrant work environment.

Governance and Administration

The management, administration and control of the property, revenue, business and affairs of the University are vested in a Board of Regents. The Board is appointed under the *Memorial University Act* and is responsible for the management, administration, and control of the property, revenue,

business and affairs of the university. Matters of an academic character are in general charge of the Senate of the University.

For more information on Memorial University of Newfoundland, please visit: Memorial home

page: <http://www.mun.ca/>

Territory Acknowledgements at Memorial:

We acknowledge that the lands on which Memorial University's Campus are situated are in the traditional territories of diverse Indigenous groups and we acknowledge with respect the diverse histories and cultures of the Beothuk, *Mi'kmaq*, *Innu*, and *Inuit of this province*.

PART 1 – SUBMISSION INSTRUCTIONS

1.1 Bids to be Submitted on Time

Bids must be submitted as set out above on or before the Submission Deadline. Bids submitted after the Submission Deadline will be rejected. Onus and responsibility rest solely with the bidder to submit its bid to the email indicated in the Open Call for Bids on or before the Submission Deadline. The Owner does not accept any responsibility for any bids submitted by means other than the email listed above. Bidders making submissions near the deadline do so at their own risk due server availability. The time for the closing will be determined according to the inbox, time stamp on opencalls@mun.ca . Bids received after the closing time based on this time stamp, will NOT be considered.

1.2 Bids to be Submitted in Prescribed Format

Bidders should submit **one (1)** email submission in PDF format. **Please note: File size cannot exceed 15 MB. Otherwise server may reject bid submission due to size. Bids submitted by fax, mail, courier, drop off or by any other means of delivery other than by email stated above shall not be accepted.**

1.3 Amendment of Bids

Bidders may amend their bids after they have been submitted if, and only if, the amendment is emailed prior to the Submission Deadline marked BID SUBMISSION AMENDMENT followed by open call number and name. Bid revisions, changes and alterations may be made only by completing a new bid. Previous submissions will be cancelled and the submission with the most recent date and time will be considered the final bid.

Email inquiries and requests for clarification shall be accepted up to **72 hours** prior to the closing time. Inquiries and requests for clarification received after this date shall not be addressed. The Strategic Procurement Office will be the only official source of information regarding this Open Call for Bids and information from any other source shall be considered unofficial and may not be correct.

To ensure consistency and quality in the information provided to bidders the Owner shall provide, by way of amendment to this Open Call for Bids, in the form of an addendum, any relevant information with respect to the Open Call inquiries received in writing without revealing the source of those inquiries. Bidders are cautioned that it is their responsibility to ensure that they receive all information relevant to this Open Call. The Owner shall not be responsible for bidders who fail to inform themselves regarding the scope and nature of the work. The Owner shall publish all amendments on Memorial University's current service providers: MERX: www.merx.com, BIDS: www.bids.ca and PODS: www.pods.net . In addition, all amendments will be published on https://www.mun.ca/finance/strategic_procurement/ . Bidders should check on a regular basis for Open Call updates. Bidders are solely responsible for ensuring they are aware of and have complied with all amendments by tender closing time. In the event there is a discrepancy between the service providers MERX, Bids, and PODS and the https://www.mun.ca/finance/strategic_procurement/ website the https://www.mun.ca/finance/strategic_procurement/ is the official website. Bidders are welcome to register their email address through opencalls@mun.ca to receive addendum notifications from Open Calls as a matter of courtesy. This does not relieve any Bidder of their responsibility to ensure all addenda has been received.

1.4 Withdrawal of Bids

Bidders may withdraw their bids prior to the Submission Deadline. To withdraw a bid, a notice of withdrawal must be sent to the opencalls@mun.ca email address prior to the Submission Deadline. The Owner is under no obligation to return withdrawn bids.

1.5 Bids Irrevocable after Submission Deadline

Bids shall be irrevocable for a period of **90** days running from the moment that the Submission Deadline passes.

1.6 Delivery

Time is of the essence and delivery schedule(s) are legally binding. Memorial University reserves the right to assess penalties or cancel awards to Bidders who fail to meet the stated delivery or completion dates. Delivery of all materials and services must be DAP (delivered at place) or DDP (delivered duty paid (all locations) and local environs

1.7 Signature

Memorial University, in consideration of section 11 of the Electronic Commerce Act, confirms its acceptance of electronic signatures, or other acceptable form of electronic consent, in satisfaction of the signature requirement for bid submissions. The electronic form of signature or consent must be directly related to the relevant bid submission at issue and must be reliable, in a manner as determined by Memorial University, for the purpose of identifying the person submitting the bid response. By submitting a bid under this process, the bidder confirms that the signatory has the appropriate and proper authority to bind the bidder to its submission, a confirmation upon which Memorial University relies in the processing of the bid submission. **Bidders must complete Appendix B –Submission Form. Any bids received without Appendix B completed will be deemed non-complaint.**

1.8 Closure

In the event that the University is closed earlier than normally expected prior to a scheduled open calls closing for that day, or for the full day, the closing date for those open calls will be extended to the next business day for the University at the same time as listed originally.

1.9 Corporations Act

The Corporations Act of Newfoundland and Labrador requires that an extra-provincial company be registered before it begins or carries on business in the Province. If your company is not registered, please apply for the appropriate forms and procedures to:

Commercial Registrations Division

Dept of Government Services, PO Box 8700 St John's, NL Canada A1B 4J6

Phone: 709-729-3317, Fax: 709-729-0232

Website: http://www.gs.gov.nl.ca/registries/companies/corp_art_inc.html

PART 2 – EVALUATION AND AWARD

2.1 Stages of Evaluation

The Owner will conduct the evaluation of bids in the following stages:

2.2 Stage I – Mandatory Submission Requirements

Stage I will consist of a review to determine which bids comply with all of the mandatory submission requirements. Bids that do not comply with all of the mandatory submission requirements as of the Submission Deadline will, subject to the express and implied rights of the Owner, be disqualified and not evaluated further.

2.3 Stage II – Mandatory Technical Requirements

Stage II will consist of a review to determine which bids comply with all of the mandatory technical requirements. Bids that do not comply with all of the mandatory technical requirements as of the Submission Deadline will, subject to the express and implied rights of the Owner, be disqualified and not evaluated further. The mandatory technical requirements are listed in Appendix A - Specifications.

2.4 Stage III – Pricing

Stage III will consist of a scoring of the submitted pricing of each compliant bid in accordance with the evaluation method set out in the Pricing Form (Appendix C). The evaluation of price will be undertaken after the evaluation of mandatory requirements has been completed.

2.5 No Amendment to Forms

Other than inserting the information requested on the mandatory submission forms set out in the Open Call, a bidder may not make any changes to any of the forms. Any bid containing any such changes, whether on the face of the form or elsewhere in the bid, shall be disqualified.

2.6 Selection of Lowest Compliant Bidder as Preferred Supplier

Subject to the Owner's reserved rights, the compliant bidder with the lowest pricing will be the preferred supplier, and will be selected to enter into the Agreement in accordance with the following section. In the event of a tie, the preferred supplier will be determined by way of a coin toss, in accordance with the Public Procurement Policy.

Provincial suppliers, suppliers with a place of business in Newfoundland and Labrador, will be given provincial supplier preference provision. This mandates an allowance of ten percent for provincial suppliers for all procurement below trade agreement thresholds.

Please note, the supplier preference does not apply when the estimated value of the commodity is above the trade agreement threshold shown below.

Public Body	Thresholds			
	Goods	Services	Public Works	Lease of Space
Memorial University	\$133,800	\$133,800	\$334,400	\$100,000

2.7 Notice to Bidder and Execution of Agreement

Notice of selection by the Owner to the preferred supplier shall be in writing. The preferred supplier shall execute the Agreement, the form and content of which will be mutually agreed upon between the parties and satisfy any other applicable conditions of this open call within fifteen (15) days of notice of selection. This provision is solely for the benefit of the Owner and may be waived by the Owner.

2.8 Failure to Enter into Agreement

If a selected bidder fails to execute the Agreement or satisfy the pre-conditions of award listed in the Open Call Particulars within fifteen (15) days of notice of selection the Owner may, without incurring any liability, proceed with the selection of another bidder and pursue all remedies available to the Owner.

2.9 Payment Terms

The University's standard payment terms are net 30 days after delivery of goods, or net 15 days after successful completion of installation as applicable. In the case of services, payment terms are also net 30 days after successful completion of the service. These terms shall also apply in the case of sub-contracted items. Prepayments will not be considered unless the supplier provides an irrevocable standby letter of credit, or the supplier provides a credit reference from its banker satisfactory to the Director of Financial and Administrative Services.

[End of Part 2]

PART 3 – TERMS AND CONDITIONS OF THE OCB PROCESS

3.1 General Information and Instructions

3.2 Open Call Incorporated into Bid

All of the provisions of this Open call are deemed to be accepted by each bidder and incorporated into each bidder's bid. A bidder who submits conditions, options, variations or contingent statements to the terms as set out in this Open call, either as part of its bid or after receiving notice of selection, unless otherwise indicated, shall be disqualified.

3.3 Bidders to Follow Instructions

Bidders should structure their bids in accordance with the instructions in this Open call. Where information is requested in this Open Call, any response made in a bid should reference the applicable section numbers of this Open Call.

3.4 Bids in English

All bids are to be in English only.

3.5 No Incorporation by Reference

The entire content of the bidder's bid should be submitted in a fixed form, and links to the content of websites or other external documents referred to in the bidder's bid but not attached will not be considered to form part of its bid.

3.6 References and Past Performance

In the evaluation process, the Owner may consider information provided by the bidder's references and may also consider the bidder's past performance or conduct on previous contracts with the Owner or other institutions.

3.7 Information in Open Call Only an Estimate

The Owner and its advisors make no representation, warranty or guarantee as to the accuracy of the information contained in this Open Call or issued by way of addenda. Any quantities shown or data contained in this Open Call or provided by way of addenda are estimates only, and are for the sole purpose of indicating to bidders the general scale and scope of the Deliverables. It is the bidder's responsibility to obtain all the information necessary to prepare a bid in response to this Open Call

3.8 Bidders to Bear Their Own Costs

The bidder will bear all costs associated with or incurred in the preparation and presentation of its bid, including, if applicable, costs incurred for interviews or demonstrations.

3.9 Bid to be Retained by the Owner

The Owner will not return the bid or any accompanying documentation or samples submitted by a bidder.

3.10 Trade Agreements

Bidders should note that procurements falling within the scope of the Canadian Free Trade Agreement, and/or the Canada-European Union Comprehensive Economic Trade Agreement are subject to those trade agreements but that the rights and obligations of the parties will be governed by the specific terms of this Open Call.

3.11 No Guarantee of Volume of Work or Exclusivity of Contract

The Owner makes no guarantee of the value or volume of work to be assigned to the preferred supplier. The Agreement will not be an exclusive contract for the provision of the described Deliverables. The Owner may contract with others for goods and services the same as or similar to the Deliverables or may obtain such goods and services internally.

3.12 Communication after issuance of open call

Bidders shall promptly examine all of the documents comprising this Open Call, and

- (a) shall report any errors, omissions or ambiguities; and
- (b) may direct questions or seek additional information

in writing by email to opencalls@mun.ca on or before the Deadline for Questions. All questions or comments submitted by bidders by email to the Open Call Contact shall be deemed to be received once the email has entered into the Open Call Contact's email inbox. No such communications are to be directed to anyone other than the Open Call Contact, and the Owner shall not be responsible for any information provided by or obtained from any source other than the Strategic Procurement Office. The Owner is under no obligation to provide additional information. It is the responsibility of the bidder to seek clarification from the Open Call Contact on any matter it considers to be unclear. The Owner shall not be responsible for any misunderstanding on the part of the bidder concerning this Open Call or its process.

3.13 All New Information to Bidders by Way of Addenda

This Open Call may be amended only by addendum in accordance with this section. If the Owner, for any reason, determines that it is necessary to provide additional information relating to this Open Call, such information will be communicated to all bidders by addenda. Each addendum forms an integral part of this Open Call and may contain important information, including significant changes to this Open Call. Bidders are responsible for obtaining all addenda issued by the Owner. In the Submission Form (Appendix B), bidders MUST confirm their receipt of all addenda by setting out the number of each addendum in the space provided.

3.14 Addenda and Extension of Submission Deadline

Any addendum added within four (4) calendar days of the Open Call for Bids closing (Including on closing day) will extend closing by a reasonable period to be determined by Memorial University. Verify, Clarify and Supplement

When evaluating bids, the Owner may request further information from the bidder or third parties in order to verify, clarify or supplement the information provided in the bidder's bid. The response received by the Owner shall, if accepted by the Owner, form an integral part of the bidder's bid.

3.15 Notification to Other Bidders

In accordance with section 30 of the *Public Procurement Regulations*, once the Agreement is awarded by the Owner, the outcome of the Open Call will be publicly posted at https://www.mun.ca/finance/strategic_procurement/. There will be no issuing of regret letters.

3.16 Debriefing

In accordance with the Public Procurement Act and Regulations, unsuccessful bidders may request a debriefing within ten (10) business days after the award has been posted. The request must be sent in writing to the Open call contact. The intent of the debriefing information session is to provide the bidder an overview of their bid and why it was unsuccessful and to help the bidder in presenting a better bid in subsequent procurement opportunities. The debriefing process is not for the purpose of providing an opportunity to challenge the procurement process or its outcome. A debriefing shall not disclose information regarding another bidder's bid.

3.17 Supplier Complaint Process

If a bidder wishes to register a complaint with respect to the Open Call process, the complaint should be provided in writing and within the parameters established by section 25 of the *Public Procurement Regulations*, as amended. The notice must provide a detailed explanation of the bidder's concerns with the procurement process or its outcome, in addition to such other information as may be required by the *Regulations*. Bidders should note that these complaint procedures are separate and distinct from any dispute resolution processes that may be provided for under applicable trade agreements. If a bidder wishes to dispute a matter under an applicable trade agreement, the bidder must follow the process set out in the trade agreement.

3.20 Conflict of Interest and Prohibited Conduct

3.21 Conflict of Interest

The Owner may disqualify a bidder for any conduct, situation or circumstances, determined by the Owner, in its sole and absolute discretion, that constitutes a conflict of interest.

The Owner reserves the right to disqualify any bidder that in the Owner's sole opinion has an actual or potential conflict of interest or an unfair advantage.

For the purposes of this Open Call, the term "Conflict of Interest" includes, but is not limited to, any situation or circumstance where in relation to the Open Call process, the bidder has an unfair advantage or engages in conduct, directly or indirectly, that may give it an unfair advantage, including but not limited to: (i) having, or having access to, confidential information of the Owner in the preparation of its bid that is not available to other bidders, (ii) communicating with any person with a view to influencing preferred treatment in the Open Call process (including but not limited to the lobbying of decision makers involved in the Open Call process), or (iii) engaging in conduct that compromises, or could be seen to compromise, the integrity of the open and competitive Open Call process or render that process non-competitive or unfair.

Bidders are required to disclose, to the Open Call Contact, any potential or perceived conflict of interest issues prior to Open Call closing date and time.

3.22 Disqualification for Prohibited Conduct

The Owner may disqualify a bidder, rescind a notification of selection or terminate a contract subsequently entered into if the Owner determines that the bidder has engaged in any conduct prohibited by this Open Call.

3.23 Bidder Not to Communicate with Media

Bidders must not at any time directly or indirectly communicate with the media in relation to this Open Call or any agreement entered into pursuant to this Open Call without first obtaining the written permission of the Open Call Contact.

3.24 No Lobbying

Bidders must not, in relation to this Open Call or the evaluation and selection process, engage directly or indirectly in any form of political or other lobbying whatsoever to influence the selection of the successful bidder(s).

3.25 Illegal or Unethical Conduct

Bidders must not engage in any illegal business practices, including activities such as bid-rigging, price-fixing, bribery, fraud, coercion or collusion. Bidders must not engage in any unethical conduct, including lobbying, as described above, or other inappropriate communications; offering gifts to any employees, officers, agents, elected or appointed officials or other representatives of the Owner; deceitfulness; submitting bids containing misrepresentations or other misleading or inaccurate information; or any other conduct that compromises or may be seen to compromise the competitive process provided for in this Open Call.

3.26 Past Performance or Past Conduct

The Owner may prohibit a supplier from participating in a procurement process based on past performance or based on inappropriate conduct in a prior procurement process, including but not limited to the following:

- (a) illegal or unethical conduct as described above;
- (b) the refusal of the supplier to honor submitted pricing or other commitments; or
- (c) any conduct, situation or circumstance determined by the Owner, in its sole and absolute discretion, to have constituted a Conflict of Interest.

In addition, the Owner may suspend the bidding privileges of a supplier with regard to non-compliant or substandard performance in accordance with section 26 of the *Public Procurement Regulations*.

3.27 Confidential Information of the Owner

All information provided by or obtained from the Owner in any form in connection with this Open Call either before or after the issuance of this Open Call:

- (a) is the sole property of the Owner and must be treated as confidential;
- (b) is not to be used for any purpose other than replying to this Open Call and the

performance of the Agreement;

- (c) must not be disclosed without prior written authorization from the Owner; and
- (d) must be returned by the bidder to the Owner immediately upon the request of the Owner.

3.28 Confidential Information of Bidder

This procurement process is subject to the *Access to Information and Protection of Privacy Act, 2015 (ATIPPA, 2015)*. A bidder must identify any information in its bid or any accompanying documentation supplied in confidence for which confidentiality is requested to be maintained by the Owner. The confidentiality of such information will be maintained by the Owner, except as otherwise required by law or by order of a court or tribunal. Bidders are advised that their bids will, as necessary, be disclosed, on a confidential basis, to advisers retained by the Owner to advise or assist with the Open Call process, including the evaluation of bids.

The Bidder agrees that any specific information in its submission that may qualify for an exemption from disclosure under subsection 39(1) of the *ATIPPA, 2015* has been identified in its submission. If no specific information has been identified it is assumed that, in the opinion of the proponent, there is no specific information that qualifies for an exemption under the subsection 39(1) of the *ATIPPA, 2015*. The Bidder acknowledges that contracting with the Owner is a public process and any information provided through this process and any records the Bidder supplies to the Owner, including the terms and conditions of any Agreement entered into, may be subject to requests under the *ATIPPA, 2015*. In the event of a request to Memorial for third party business information in its custody and control, information can be withheld only if it meets all parts of the 3-part harms test for non-disclosure as stated in section 39 of the *ATIPPA, 2015*.

Information, including the financial value of a contract resulting from this procurement process, will be publicly released as part of the award notification process, in accordance with section 30 of the *Public Procurement Regulations*.

If a bidder has any questions about the collection and use of personal information pursuant to this Open Call, questions are to be submitted to the Open Call Contact. Further information relating to subsection 39(1) of the *ATIPPA, 2015* is provided in guidance documents available through the Office of the Information and Privacy Commissioner at <https://oipc.ni.ca/guidance/documents>.

3.29 Reserved Rights of the Owner

The Owner reserves the right to:

- (a) make public the names of any or all bidders as well as bid price and value of contract;
- (b) make changes, including substantial changes, to this Open Call provided that those changes are issued by way of addendum in the manner set out in this Open Call ;
- (c) request written clarification or the submission of supplementary written information in relation to the clarification request from any bidder and incorporate a bidder's response to that request for clarification into the bidder's bid. This shall not be an opportunity for bid repair;

- (d) assess a bidder's bid on the basis of: (i) a financial analysis determining the actual cost of the bid when considering factors including quality, service, price and transition costs arising from the replacement of existing goods, services, practices, methodologies and infrastructure (howsoever originally established); and (ii) in addition to any other evaluation criteria or considerations set out in this Open Call consider any other relevant information that arises during this Open call process;
- (e) waive minor irregularities and formalities and accept bids that substantially comply with the requirements of this Open Call ;
- (f) verify with any bidder or with a third party any information set out in a bid;
- (g) check references other than those provided by any bidder;
- (h) disqualify a bidder, rescind a notice of selection or terminate a contract subsequently entered into if the bidder has engaged in any conduct that breaches the process rules or otherwise compromises or may be seen to compromise the competitive process;
- (i) cancel this Open Call process at any stage;
- (j) cancel this Open Call process at any stage and issue a new Open Call for the same or similar deliverables;
- (k) accept any bid in whole or in part; or
- (l) reject any or all bids;
- (m) not necessarily select the lowest or any bidder;

And these reserved rights are in addition to any other express rights or any other rights that may be implied in the circumstances.

3.30 Limitation of Liability

By submitting a bid, each bidder agrees that:

- (a) neither the Owner nor any of its employees, officers, agents, elected or appointed officials, advisors or representatives will be liable, under any circumstances, for any claim arising out of this Open Call process including but not limited to costs of preparation of the bid, loss of profits, loss of opportunity or for any other claim; and
- (b) the bidder waives any right to or claim for any compensation of any kind whatsoever, including claims for costs of preparation of the bid, loss of profit or loss of opportunity by reason of the Owner's decision not to accept the bid submitted by the bidder for any reason, the Owner's decision to enter into an agreement with any other bidder or to cancel this bidding process, and the bidder shall be deemed to have agreed to waive such right or claim.

3.31 Governing Law and Interpretation

These Terms and Conditions of the Open Call Process:

- (a) are intended to be interpreted broadly and independently (with no particular provision intended to limit the scope of any other provision);
- (b) are non-exhaustive and shall not be construed as intending to limit the pre-existing rights of the Owner; and
- (c) are to be governed by and construed in accordance with the laws of the Province of Newfoundland & Labrador and the federal laws of Canada applicable therein.

3.32 Facility Compliance Requirement

- (a) Equipment, power tools, instruments and appliances intended for use within Memorial University's facilities must comply with all regulatory requirements related to use and/or installation in University facilities. This includes but is not limited to certification/listing by recognized agencies, Pressure Vessel Act of Newfoundland and Labrador and similar.
- (b) Items provided related to this open call that receive power from the University's electrical system must be certified or listed for use within Canada by a recognized agency such as Canadian Standards Association (CSA) or Underwriter Laboratories Canada (ULC). A full list of agencies recognized by Memorial University is available upon request.
- (c) Equipment, tools, instruments and appliances that generate pressure may require registration as a pressure system with the Province of Newfoundland and Labrador. Compliance with the Boiler, Pressure Vessel and Compressed Gas Regulations under the Public Safety Act of Newfoundland and Labrador and the Boiler, Pressure Vessel, and Pressure Piping Code CSA B51:19 shall be demonstrated.
- (d) The vendor is responsible for all costs associated with ensuring the system is compliant with legislative requirements and for the application and registration processes. Field certifications may be considered but all costs and efforts for such scenarios are the responsibility of the vendor.

4. Environmental Health and Safety Requirements

Maintaining a healthy and safe environment for all members of the campus community, as well as visitors, is a priority with the University. This involves a commitment from all sectors of the campus community and extends to outside agencies having occasion to come on campus to conduct business.

The following requirements will apply to all work undertaken by contractors and service personnel on any University property or for any work undertaken on behalf of the Owner.

4.1.0 Regulations, Codes and Standards

Contractors shall be familiar with and abide by provisions of various safety codes and standards applicable to the work performed and should refer to *1.21.5 of General Conditions*:

1.21.5 The Contractor shall be completely responsible for the safety of the Work as it applies to

protection of the public and property and construction of the Work.

The codes that must be followed and enforced for safety are:

- a) The National Building Code, Part 8, Safety Measures at Construction and Demolition Sites (Latest Edition);
- b) Canadian Code for Construction Safety (Latest Edition) as issued by the Associate Committee of the National Building Code;
- c) The Occupational Health and Safety Act of Newfoundland and Labrador (most current version) and Regulations.

In particular, strict adherence to the Provincial Occupational Health and Safety Act and Regulations and with the National Building Code of Canada, Part 8 is required

4.2.0 General Health And Safety Regulations

- a. Contractors/service agencies shall ensure that members of the campus community are not endangered by any work or process in which they may be engaged. Work areas shall be adequately barricaded, and if dust or fumes are generated, suitable enclosures shall be installed to contain such emissions.
- b. No material shall be stored in such a way as to obstruct walkways or represent a danger to pedestrian or vehicular traffic.
- c. Adequate protection shall be provided to prevent the possibility of goods falling from scaffolding or elevated areas. Areas where goods are being loaded or off loaded shall be barricaded or otherwise protected to prevent unauthorized entry. Appropriate warning signs must be posted.
- d. The work areas must be kept reasonably clean and free from debris which could constitute a fire hazard. Care must be taken to ensure that the work process does not activate fire alarm detection devices. (Generation of dust and fumes can activate smoke detectors causing a false alarm).
- e. Due consideration shall be given to fire safety in buildings. Flammable goods must be kept away from sources of ignition. No work involving the use of open flame devices must be undertaken around flammable solvents or gases.
- f. Some University buildings contain asbestos and other hazardous materials. Do not alter or disturb any goods believed to contain asbestos goods (unless this is a duly authorized part of the project). Consult with University officials before proceeding with any work.
- g. Safety Data Sheets shall be procured for any hazardous product used on campus. Such sheets shall be made readily available for consultation as required under the Workplace Hazardous Materials Information System (WHMIS).

NOTE: The above requirements are not to be considered all-inclusive and are considered to be complementary to the safety requirements outlined in the agreement between the University and Supplier. Certain conditions and circumstances may require adherence to additional safety requirements.

As a general requirement, contract/service personnel are expected to conduct all work on campus in a professional and safe manner and to give priority to the safety and welfare of members of the campus community.

4.3.0 Contractor Safety Management

4.3.1 All Contractors and Subcontractors to be used by the Contractor in the execution of the Contract shall be required to submit confirmation of a current third party occupational health and safety program certification (Letter of Assurance). These may include, but not be limited to, Certificate of Recognition (COR), OHSAS 18001, and CSA Z.1000.

4.3.2 All Contractors and Subcontractors shall be required to review and follow all requirements of the MUN Contractor Safety Management Element in Appendix D.

4.3.3 Prior to Contract award, the Contractor will be required to provide the Information requested in 4.3.5 below.

4.3.4 All Contractors and Subcontractors are required to give the Owner written permission to approach Provincial regulatory authorities for applicable safety-related information on their respective firms.

4.3.5 The Contractor must also provide the following:

- (a) Health and Safety policy statement;
- (b) Safety Program table of contents;
- (c) Site Hazard Assessment;
- (d) Letter of Assurance for Compliance;

4.3.6 In lieu of a Subcontractors third party program, Contractors shall be required to integrate the Subcontractor(s) into the Contractors program and provide proof of same.

4.3.7 Memorial reserves the right to request and audit the full health and safety program of Contractors and Subcontractors and their associated documentation. This documentation may include, but not be limited to the following:

- (a) Health and Safety Program and/or Manual
- (b) Site Hazard Assessment
- (c) Letter of Assurance for Compliance (third party certification)
- (d) Applicable documented safe work practices;
- (e) Inspection reports and schedules;
- (f) Required employee safety training certifications and qualifications;
- (g) Updated list of OHS Committee and/or a worker health and safety representative, or workplace health and safety designate;
- (h) Proof of completion of the Owner's contractor safety orientation within the prior three years.

4.3.8 Memorial University reserves the right to refuse or cancel any contract with a Contractor that is not in compliance with Memorial's standards for Safety.

4.3.9 The University reserves the right to stop any work or portion of work where no documentation can be produced on site which identifies the hazards presented by a piece of work, safe work procedures for work or certification of employees performing work. The Contractor is liable for any costs incurred by affected parties associated with such a stoppage.

4.3.10 Prior to coming to site all workers must complete the Contractor Safety training found on the MUN website.

https://www.mun.ca/health_safety/training/

4.4.0 Access To Site

4.4.1 All Contractors and Subcontractors to be used in the execution of the Contract shall give advance notification of when they will be on site. Any work to be performed outside of Regular Time must have advance approval of the Owner.

Any discontinuation of the Work which causes a Contractor or their Subcontractors to suspend operations onsite will require the following:

- Contractor/Subcontractors shall notify the Owner of the stop work date.
- Contractor/Subcontractors shall ensure the site is left in a safe and secure condition.
- Contractor/Subcontractors shall ensure that locks and tags on mechanical and/or electrical systems are removed and, where necessary, replaced by the University.
- Contractor/Subcontractors shall not return to site without expressed prior permission from the Owner.

[End of Part 4]

APPENDIX A – SPECIFICATIONS

1. Open calls shall be accompanied by an approved bid bond or certified cheque in favour of Memorial University of Newfoundland in the amount of ten percent (10%) of the tendered amount if the amount quoted is greater than or equal to \$25, 000.00 tax included.
2. The successful (preferred) contractor shall provide the University with a Performance Bond (50%) of total Contract bid price if the amount quoted is greater than or equal to \$25, 000.00 tax included. This Performance Bond shall be in force and certificate of the Performance Bond presented within 7 days of being notified by the University of being the preferred bidder.
3. It is a **requirement** for all bidders to contact site representative to schedule a site visit and become totally familiar with the complexity, condition, function and location of all systems equipment included under this service contract prior to submission of bids.

TECHNICAL SPECIFICATIONS

1. Scope of Work

1. Generally, this Contract will consist of complete software upgrades; parts and labour coverage including all required maintenance and equipment repairs for mechanical and control systems of the Grenfell Campus – Corner Brook , NL and Bonne Bay Aquarium and Research Station (BBARS) – Norris Point, NL facilities. These include all Heating, Ventilation and Air Conditioning (HVAC) Systems; Heat Pump Systems; Chillers, Condensers and Refrigeration systems; as well as all components of the Building Automation System (BAS).
2. Work sites for this Contract include all facilities listed on Grenfell Campus, Corner Brook and Bonne Bay Aquarium and Research Station, Norris Point. These include:
 - 1- Arts & Science Building including Arts & Science Extension
 - 2- Fine Arts Building
 - 3- Library /Computing Building
 - 4- Forest Center including “Beri Lab” extension
 - 5- Chemical Storage Building
 - 6- Residence Complex
 - 7- Recplex
 - 8- Aquarium / Academic Building (BBARS)
 - 9- Residence Building

3. The Contract shall remain in force for a period of Six (6) months from the time of acceptance by the University, tentatively October 01, 2025 to March 31, 2026, but may be extended on a year-to-year basis (April 1, 2026 to March 31, 2027) and April 1, 2027 to March 31, 2028) by mutual consent of the parties to this Contract to a maximum of 2 years. Any further extensions that may be requested, and mutually agreed upon, shall be on a month- by-month basis and subject to the terms of the Contract. Such monthly extensions are meant only to accommodate local work disruptions or new tender awards for the services in question extending beyond the normal end of this Contract.

SECTION I – HVAC CONTROLS

1. General

1. Scope of work under this section includes but shall not be limited to the provisions of all labour, materials, tools and equipment necessary to complete the work and provide the services listed in Item 2.
2. All work disruptive to the building occupants is to be done after normal building operational hours, with exception of scheduled work approved by Owners Representative. Normal building operational hours are 8 a.m. to 5 p.m. Monday to Friday. For some buildings, the hours may be extended beyond 5 p.m. See below:

CAMPUS BUILDING HOURS:

NO.	BUILDING	TIME BUILDING OPENS	TIME BUILDING CLOSES
1.	Arts & Science (including Extension) - AS	6:00 a.m.	12:00 a.m.
2.	Library/Computing - LC	6:00 a.m.	12:00 a.m.
3.	Fine Arts - FA	6:00 a.m.	2:00 a.m.
4.	Forest Centre - FC	6:00 a.m.	12:00 a.m.
5.	RecPlex – RP		
6.	Residence Complex	Accessible 24/7 by students	
7.	Residence Building (BBARS)	Accessible 24/7 by students	

Classes normally start 8:30 a.m. daily Monday – Friday and finish around 10:30 p.m.

At times classes are also scheduled on Saturdays.

Library Hours:

NO.	DAY	HOURS
1.	Monday	8:00 a.m. – 12:00 a.m.
2.	Tuesday	8:00 a.m. – 12:00 a.m.
3.	Wednesday	8:00 a.m. – 12:00 a.m.
4.	Thursday	8:00 a.m. – 12:00 a.m.
5.	Friday	8:00 a.m. – 8:00 p.m.
6.	Saturday	10:00 a.m. – 8:00 p.m.
7.	Sunday	12:00 p.m. – 10:00 p.m.

2. Work Included

1. This section pertains to work on the Building Automation System (BAS) components, and all work on the DDC programs and associated proprietary system components, such as panels, computers, software, hardware, firmware and all required upgrades throughout the life of the service contract. It should be noted that the existing system is for the most part 85% Honeywell system, 10% Cercon, 5% Delta.
2. The Contractor must be able to prove to the satisfaction of the University that they have thorough knowledge of the existing BAS and related components that currently exist/operate in all campus buildings; and that their employees/technicians who work on the systems are trained and experienced in the management and operation of said systems. This training and experience shall be clearly identified in **Appendix D**.
3. **It shall be the Contractor's responsibility to make themselves aware of all warranties still in place on the site, and it will be their responsibility to ensure that the University receives the maximum benefits from these warranties.** It is expected that the contractor will assist the University with all warranty claims and issues with equipment.

3. **Work is to include but not be limited to:**

1. Schedule performance inspections and calibrations of the HVAC control components. **Appendix G** contains a list of components which shall be checked during inspections. **The actual level of inspection and the frequency will vary from building to building but a total inspection shall be carried out at least once a year. Reports shall be provided on all equipment and systems annually.**
2. Actual schedules for work, as per **Appendix G** shall be coordinated with and agreed to by the University Representative. Routine inspection work will be schedule at least one (1) week in advance and all schedules shall be adhered to.
3. Perform trouble shooting/diagnostic tests on the HVAC Controls to prevent system downtime and equipment failure. Such analysis may require measurements, such as temperature/humidity, airflow, air velocity, fluid flow rate, spring range and include setting up trend logs on troubled points.
4. HVAC Controls repair/replacement/calibration and installation, as required to maintain the Building Automation System (BAS).
5. Make minor modifications/additions to the existing BAS as required with documentation given to University Representative/ Station Representative. **All major planned changes to the BAS to be reviewed and approved by the applicable representative prior to implementation of such work.**
6. Refer to **Appendix H** for the Service reporting to the University representative. On completion of each maintenance service call, the Contractor shall submit a copy of a work order referencing the task/s completed with comments detailing the type/slope of work performed. **All service reports shall be submitted prior to or with the invoice for any given billing period.**
7. Emergency and service calls outside the scope of the scheduled work must be responded to as per Section IV, Item 5.
8. Reports on system preventative and regular maintenance, replacement, failures, etc. must be provided on all equipment and systems, and kept up to date for review by Owners on request. MSDS sheets for all materials used by contractor must be maintained on location and readily available for review.

SECTION II –CHILLER/S /AIR CONDITIONERS /HEAT PUMPS REFRIGERATION

1. General

1. Scope of work under this section consists of complete parts and labour coverage including all required regular maintenance and any minor or major equipment repairs for ALL systems / equipment including refrigeration based equipment installed at the Campus. The coverage applies to but is not necessarily limited to any and all parts or components, controls, assemblies, condenser and cooler tubes including all oil and refrigerant as pertains to the units at Grenfell Campus. Chillers that are fully covered are listed in **Appendix J**.

2. Work Included - The work involved in this section for CHILLERS:

1. Chiller File Code A0386
MaQuay Chiller
Model: WGZ130CW37
SERIAL NO: STNU110400049
575/3PH/60HZ
REFRIGERANT: R410a

All maintenance schedules for this chiller to be performed as instructed in the Installation, and Maintenance Manual IMM WGZC dated October 2010.

2. Chiller File Code C0100
Chiller – Trane – 70 Ton
Model No: RTUA0705YA01R2DOVDFN
Serial No: U95D6698

All maintenance schedules to be performed as instructed in the TRANE Installation, Operations Maintenance Manual RTWA-10M-1A

3. An Ozone Depleting Substances Control Service Log (**Appendix K**) shall be updated yearly. All repairs to Air Conditioning Units shall have a service report signed by owner's representative.
4. Chiller tube cleaning / inspection shall be done yearly during winter months.
5. Chiller shut down to be performed depending on weather conditions in October-November.
6. Chiller start up shall be done in May.

SECTION III – MECHANICAL MAINTENANCE OF HEATING/VENTILATION SYSTEMS

1. General

This section covers the responsibility of the contractor for ALL ventilation equipment and systems. This consists of complete maintenance and parts replacement for all heating and ventilation air handling units located in the Grenfell Campus and BBARS facilities. This will include any return and exhaust fans directly related with the heating and ventilation units. Items covered by this agreement include, but are not necessarily restricted to, duct heaters, compressors, pumps, humidifiers, air dryers, electric motors, variable frequency drives, housings, fans, shafts, bearings, belts, filters (see 1.4 below), coils and coil systems, actuators of the valves serving the coils, dampers and louvers integral with the heating and ventilation systems up to and including the linkage to the damper motor and any other component or part normally considered to be a part of the Heating and Ventilation Units and Systems.

All electrical wiring and systems associated with any part or component of the heating and ventilation systems, motor starters, and contactors will be included as part of the Contract. An electrical subcontractor stipulated by the Contractor and subject to the University approval may be used for this work.

1. Grenfell Campus has multiple Lab Fume Hood Systems located in the following buildings: A&S (including Extension), Forest Center and BERI Lab, that require yearly testing. Bonne Bay Aquarium and Research Station has one (1) Lab Fume Hood Systems that requires yearly testing. The contractor shall provide OEM representative annually to complete testing and make good any issues related to system performance. These fume hood control systems contain many components that require annual testing. The testing procedure will include working with university technical resources to complete annual verifications. This visit shall be scheduled in consultation with Memorial University's Technical Services division (typically during spring and fall semesters). All other day to day service shall be provided by contractor's person on site.
2. Buildings as listed of the Grenfell Campus and BBARS are to be covered for mechanical maintenance under the contract. Coverage will include all environmental mechanical systems contained in, and related to, the Campus and BBARS facilities. See **Appendix J** for a list of equipment covered under the Contract. **Should environmental mechanical system(s) located at the Campus / BBARS not be listed in Appendix J they shall still be covered under this Contract.**
3. Air Filter Service: The Contractor will furnish and install air filter fixtures and will exchange media as desired in the following schedule for all heating and ventilation equipment of the facilities listed as per 1.2 above. **Appendix L.** Note:

As per COVID requirements/directives issued from Memorial's EHS, we have moved to installing MERV 13 filters wherever possible in campus/BBARS systems. The filters list shall be edited (from existing) as required to allow for this upgrade.

4. All air handling equipment including coils, dampers, housings, etc., to be thoroughly washed / cleaned at least once a year. Drip pans to be inspected at each filter changing, maintained free flowing, properly sloped and cleaned whenever necessary. General vacuuming to be carried out at each filter changing to remove any loose dirt or visible dust around filter area and unit.

2. Preventative Maintenance

1. Preventive Maintenance (PM) (sample **Appendix G**) shall be scheduled by Contractor's service plan detailing exactly what tasks are to be performed. Schedules of Monthly (M); Three Monthly (3M); Six Monthly (6M) and Twelve Monthly (12M) intervals detailing the task/s to be performed. Tracking and reporting for scheduling shall be done in coordination with the Facility Preventive Maintenance Program (PMP). The Building Automation System (BAS) shall be monitored daily with records of all alarms logged in a Data Base. **The Controls Architecture, Appendix G, shall be kept as built when systems / equipment are upgraded, added or deleted with a full review yearly.**
2. Maintenance intervals will be determined by equipment with tractable run time / monthly schedules, application and/ or manufacturer's specifications. In the case of BBARS, preventative Maintenance of equipment will take place two (2) times per year, once during each of May and November, or as per application and/ or manufacturer's specifications.
3. System parts and components, both fixed and moving, will be maintained against deterioration which shall include cleaning, patching, painting, coating and touch-up of components as well changing of filter media, belt replacements, parts lubrication and other normal maintenance items as needed.
4. **The Contractor shall complete a service plan, identifying inspections schedules and task to be performed for ALL equipment / systems. This plan shall be reviewed and agreed upon with the Campus Representatives within 30 days from the award of the tender.** Note Appendix G covers examples of tasks and schedules; Section II covers required service for Chillers and Section III cover covers Heating and Ventilation Systems. **The Contractor shall schedule a visit to Grenfell Campus and BBARS and have the Contractor's Representative give an overview of the service plan to a representative of Memorial staff on site. Grenfell Campus / BBARS shall provide space for the event.**

3. Component Replacement

1. Refurbish or replace all worn, failed or doubtful components and parts including filter holders and unit frames. Also included are filter spacers, coils, motors, isolation springs, belts, pulleys, motor mounts, bearings, motors, fans, dampers, bird screens, diverting vanes, doors and latches. These replacements will be of like or current design to minimize system depreciation and obsolescence.
2. All spacers used to minimize leakage around filters that are missing or not made of metal will be replaced with galvanized spacers suitable for this purpose. Filter shall have proper seals to prevent bypass around the filter unit.
3. Based on statistical data on similar equipment that indicates failure point/s is approaching for any component or part, such component or part shall be repaired or replaced in advance to prevent system failure.

4. Emergency Service

1. Every activity under this agreement is designed to minimize the incidence of emergency situations and disruption to the Campus Operation. However, backup emergency service shall be provided on a 24-hour/day basis **within** this Contract to minimize down time and inconvenience. (See Section IV, Item 5.)

SECTION IV – CONTRACT EXECUTION

1. Workmanship

1. All equipment, panels and controls covers must be replaced and properly fitted utilizing all fastenings screws and/or bolts according to equipment design. All workmanship is subject to inspection and approval.
2. All work shall be performed by skilled tradesmen and supervised by a competent foreman at all times.
3. All unsatisfactory work will be replaced without extra cost incurred by Owner.

2. Work Co-ordination

1. The Contractor shall co-ordinate work with all trades in liaison with the University / BBARS representative.
2. All parts and equipment shall be installed to manufacturer's instructions.

3. Controls and Mechanical General

1. Perform all controls, mechanical and maintenance work in accordance with each individual requisition, job slip, work order, as show on the drawings, in the specifications and as directed by the University representative or designate.
2. All parts and equipment shall be installed to manufacturer's instructions.

4. Electrical General

1. Perform all electrical work in accordance with the Canadian Electrical Code, latest edition, and as shown on the drawings, in the specifications and as directed by the University / BBARS representative.
2. All service of systems / equipment shall have Lockout / tag out applied. If equipment requires to be operating for testing, a Grenfell Risk Assessment form shall be completed.
3. All parts and equipment shall be installed to manufacturer's instructions.

5. Service Performance Response

1. The Contractor shall respond to an “Emergency or Urgent” request from the University within four (4) hours of being notified on a twenty-four (24) hour, seven (7) day per week basis. The Contractor shall respond to an “Emergency or Urgent” request from the BBARS within eight (8) hours of being notified on a twenty-four (24) hour, seven (7) day per week basis. Failure of equipment or systems to perform their basic function shall be considered an emergency, where the safety & health of occupants or damage to infrastructure/systems are at risk.
2. The Contractor shall respond to a “Routine” request for service within one (1) working day of being notified by the University representative for Grenfell Campus. The Contractor shall respond to a “Routine” request for service within two (2) working days of being notified by the University/BBARS representative for work at the BBARS.
3. The Contractor shall adhere to all inspection/maintenance schedules as dictated by the Campus Preventive Maintenance Program (PMP).
4. The Contractor, when requested by the University or BBARS representative for an emergency service, will proceed to the site, repair or protect the system or equipment from further damage. **When the system has been made safe, the Contractor shall provide within one (1) working day, a detailed report on the incident.**
5. A remote response, where virtual intervention can provide the required service, will be considered where applicable.

6. Contractor Responsibilities

1. Contractor must have a staffed office at all times during normal business hours (8am – 4pm) and a demonstrated ability to receive and respond to calls for service as per Item 5.1 during other than normal business hours.
2. Reference to **Appendix D**, the Contractor shall provide names of personnel performing work on this Contract complete with proof of their qualifications.
3. The Contractor shall contact the University representative(s) (to be named) on the first working day following an “emergency or urgent” call to report the incident.
4. The Contractor shall register with the on-site representative upon entering and leaving the premises when applicable.

5. The Contractor must provide a telephone number to ensure service can be provided on a twenty-four (24) hour basis for the duration of this Contract.
6. The Contractor shall arrive at the site equipped with all tools and materials required to complete the work as requested.

7. Contract Personnel

1. **The Contractor must assign and dedicate, on a part-time basis, at Grenfell Campus at least one person thoroughly conversant with all aspects of mechanical and control systems for the purposes of executing this Contract. The expected scheduling of this person is to be three 8 hour days per week, typically Monday/Wednesday/Friday.**
2. This person shall be subject to the University's approval and must be listed in **Appendix D**. They will be provided with work space on the University campus by the University and one must be available at all times during the normal working hours of the Facilities Management of the University.
3. This person shall also be available for emergency calls.
4. If during this course of the Contract the Contractor's designated person is not available to the University for any reason, e.g., vacation, sickness, etc., the Contractor shall provide substitute personnel of equal qualifications. This person/s shall be listed in **Appendix D**.
5. From time to time, if additional personnel are required for the proper performance of the Contract, then these personnel will be provided within the terms of this Contract.

8. Vehicle

1. The Contractor may provide a vehicle for the use of their designated person(s) on Campus, and the vehicle must be clearly marked with the Contractor's name. A parking permit for this vehicle will be supplied by Grenfell Campus at no charge to the Contractor.

9. Spare Parts

1. The Contractor must maintain a spare parts inventory on campus adequate to provide the services called for under this Contract.

10. Invoicing

1. For work outside the scope of the Contract, the Contractor shall submit work order signed by the University representative with an invoice. No invoice will be

considered for payment unless accompanied by a signed work order. All charge rates shall be as quoted on **Appendix C**.

- 2 Invoice/s issued for extra work shall show:
 - .1 Grenfell / BBARS work order number
 - .2 PM File Code or description
 - .3 Date
 - .4 Name of person who authorized request
 - .5 Hours broken down (Travel / actual repair time)
 - .6 Materials list cost and per cent discount
- 3 In the event of a dispute, the Contractor is to make any and all records available to the University to substantiate time and/or materials spent on any one job.

11. Service Definitions

1. The following definitions apply to the work to be directed by the University representative:

Add make an addition to.

Adjust bring components to a more effective relative position

Assemble to take apart and put together again

Balance Load the balancing of three-phase and single-phase circuits which enter (or leave) main switchboards, transformers and distribution panel boards by calculating new and existing loads accordingly.

Clean scrape, brush, flush and vacuum as required to remove dust, dirt and foreign matter.

Check/Inspect view closely for dirt, foreign substance, lack of lubricant, wear, damage, tightness, tension, alignment, leaks, cracks, sapling, deformation, overloading and settings; make a critical appraisal of equipment, component and parts' ability to fulfil their function to a high degree of efficiency.

Instruct inform the University representative of any new operating procedures. Demonstrate and explain purpose, benefit and method of implementing new procedures.

<u>Lubricate</u>	apply oil or grease to joints between moving parts and joints between fixed and moving parts.
<u>Measure</u>	ascertain the measurements of electrical circuits and equipment with tested and approved electrical metering devices.
<u>Paint</u>	clean, prepare and paint surfaces to paint manufacturer's recommendations with paint and primer recommended by paint manufacturer for applicable surface and use.
<u>Prove</u>	operate and determine if operation produces intended response.
<u>Remove</u>	take off or away from.
<u>Repack</u>	fill with packing again.
<u>Repair</u>	restore to a sound state.
<u>Replace</u>	restore by removing old components and replacing with new components.
<u>Report</u>	to University representative on site and include in work report results of inspection and proving, note problems encountered, services required, services performed and readings taken.
<u>Shutdown</u>	take out of service.
<u>Startup</u>	return to service.
<u>Tighten</u>	securely fix in place.
<u>Torque</u>	a predetermined amount of force (work measured in foot pounds or newton meters) determined by a manufacturer and executed with the use of a torque wrench to turn a nut on a bolt, relating to specific equipment or system.
<u>Treat</u>	act upon with agent.

12. **University / BBARS Representative(s) Authorized Personnel**

Grenfell Campus

<i>Kevin Garnier, Director</i>
<i>Facilities Management</i>
<i>Memorial University of Newfoundland</i>
<i>Email: kmgarnier@mun.ca</i>
<i>Phone: 709-639-6530</i>
<i>Fax: 709-639-2394</i>

BBARS

<i>Robert Scott, Director</i>
<i>Bonne Bay Aquarium and Research Station</i>
<i>Memorial University of Newfoundland</i>
<i>Clarke's Lane, Norris Point, NL</i>
<i>Email: robert.scott@mun.ca</i>
<i>Phone: 709-458-2550</i>

13. Frequency

1. Breakdowns, routine or emergency service is to be provided as requested by University/BBARS representative or designate on a demand basis.
2. Need for service as a priority and the scope of each service call are at the discretion of the University/BBARS representative.

14. Work Schedule

1. At each normal maintenance service call, Contractor must have the necessary personnel assigned for proper performance and providing the service continuously on every working day until the work is completed.
2. For response to other work related services refer to Item 5 of this section.
3. Deviations from 14.1 must be agreed upon by University/BBARS representative.

15. Site Visit

1. University representatives may, without prior notification, visit the site to inspect work quality and progress.

16. **Clean Up**

1. Contractor shall be responsible for clean-up associated with own works.

17. **Chemical Treatment.**

1. This work shall include testing for all Hydronic systems. (Heating, Chilled Water Heat recovery loops and Cooling towers)
2. The Contractor shall retain qualified water **treatment specialist** (identified in **Appendix D**) to perform testing, supply and application of chemicals, associated training and take water samples two (2) times a year (fall and spring). Monthly testing to be completed by contractor staff on site with test reports sent to specialist for review.
3. Reports of monthly testing and water samples taken shall be forwarded to University's Representative with recommendation and action taken (if required) to keep the system to ASME Boiler Code Section VI, and requirements and standards of authorities having jurisdiction, except where specified otherwise.
4. Service requirements for chemical treatment of systems are to include, as a minimum, the following:

Closed Loop Systems:

- 1) Heating loop – Academic building, monthly service required for 12 months / year
 - 2) Heating loop – Forest Centre, monthly service required for 12 months / year
- Chilled loop – Library building, monthly service required for cooling season only (approx. 6 months / year)

Pot feeders, filters are already installed for all three of these loops.
Additional equipment not required (filters and chemical only)

Cooling Towers:

- 1) Cooling tower and chilled loop – Academic building, monthly service required for cooling season only (approx. 6 months / year)
- 2) Cooling tower – Forest Centre, monthly service required for cooling season only (approx. 6 months / year)

Note: Systems include controller, pumps, solid boards, water meter, and chemicals. Provide all chemicals as per recommendation by current service agreement. Confirm requirements with Owners rep.

18. Training

1. The Contractor shall agree to provide in-house training for University / BBARS Facilities Staff on the operation of the Building Automation System (BAS), this shall include access to system/s through computer within any Campus building. In addition to this, training should include but not limited too full overview of the BAS system, its operating systems, functions, purpose and components details specific to Grenfell Campus Facilities.

19. Warranty and Guarantee

1. Where the Contractor supplies equipment purchased from a supplier or manufacturer, the Contractor shall obtain from the manufacturer or supplier, a warranty for the manufacturer's normal warranty period and such warranty shall be made out to Memorial University of Newfoundland.
2. The Contractor shall provide a written guarantee against defects in workmanship and materials for a period of one year. Such guarantee shall be made out to Memorial University of Newfoundland. The guarantee is to be dated from the date of acceptance of the work performed.

APPENDIX B – SUBMISSION FORM

1. Bidder Information

Please fill out the following form, naming one person to be the bidder's contact for the Open Call process and for any clarifications or communication that might be necessary.	
Full Legal Name of Bidder:	
Any Other Relevant Name under which Bidder Carries on Business:	
Street Address:	
City, Province/State:	
Postal Code:	
Phone Number:	
Fax Number:	
Company Website (if any):	
Bidder Contact Name and Title:	
Bidder Contact Phone:	
Bidder Contact Fax:	
Bidder Contact Email:	

2. Offer

The bidder has carefully examined the Open Call documents and has a clear and comprehensive knowledge of the Deliverables required under the Open Call. By submitting a bid, the bidder agrees and consents to the terms, conditions and provisions of the Open Call, including the Form of Agreement, and offers to provide the Deliverables in accordance therewith at the rates set out in the completed Pricing Form (Appendix C).

3. Rates

The bidder has submitted its rates in accordance with the instructions in the Open Call and in the Pricing Form (Appendix C). The bidder confirms that it has factored all of the provisions of Appendix A, including insurance and indemnity requirements, into its pricing assumptions and calculations.

4. Addenda

The bidder is deemed to have read and accepted all addenda issued by the Owner. The onus is on bidders to make any necessary amendments to their bids based on the addenda. The bidder is required to confirm that it has received all addenda by listing the addenda numbers on the following line: (For example, if Addendum 1 has been issued, enter 1 on the line. If there are two addenda, enter 1, 2.)_____. Bidders who fail to complete this section will be deemed to have not received all posted addenda and shall be deemed **non-compliant**.

5. No Prohibited Conduct

The bidder declares that it has not engaged in any conduct prohibited by this Open Call.

6. Disclosure of Information

The bidder hereby agrees that any information provided in this bid, even if it is identified as being supplied in confidence, may be disclosed where required by law or by order of a court or tribunal. The bidder hereby consents to the disclosure, on a confidential basis, of this bid by the Owner to the advisers retained by the Owner to advise or assist with the Open Call process, including with respect to the evaluation of this bid.

7. Bid Irrevocable

The bidder agrees that its tender shall be irrevocable for a period of **[**90**]** days following the Submission Deadline.

8. Execution of Agreement

The bidder agrees that in the event its bid is selected by the Owner, in whole or in part, it will finalize and execute the Agreement in the form set out in Appendix A (or in a form mutually acceptable to the parties) to this Open Call in accordance with the terms of this Open Call . Failure to submit this signature section will render the proposal NON-COMPLIANT and the proposal will be disqualified.

Signature of Witness

Signature of Bidder Representative

Name of Witness

Name of Bidder Representative

Title of Bidder Representative

Date

I have the authority to bind the bidder.

**IN SIGNING THIS PAGE AND
SUBMITTING YOUR PROPOSAL, THE
PROPONENT ACKNOWLEDGES
HAVING READ, UNDERSTOOD AND
AGREED TO THE TERMS AND
CONDITIONS OF THIS DOCUMENT**

APPENDIX C – PRICING FORM

1. INSTRUCTIONS ON HOW TO COMPLETE THE PRICING FORM

- Rates must be provided in Canadian funds, inclusive of all applicable duties and taxes except for HST, which should be itemized separately.
- Rates quoted by the bidder must be all-inclusive and must include all labor and material costs, all travel and carriage costs, all insurance costs, all costs of delivery to the Owner, all costs of installation and set-up, including any pre-delivery inspection charges, and all other overhead, including any fees or other charges required by law.

DESCRIPTION	TOTAL COST PER Six (6) MONTH PERIOD (EXCL HST)	TOTAL COST (EXCL HST)
Initial Contract Period Service Oct 1, 2025 to MArch 31, 2026		\$
SUBTOTAL		\$
HST		\$
GRAND TOTAL		\$

ADDITIONAL HOURLY RATES				
<p>The owner will not be obligated to provide any given number of hours of work for any trade. These Unit Rates will <u>only</u> be used for miscellaneous facilities improvements not listed in Technical Specifications in Appendix A on an “as required basis”.</p>				
DESCRIPTION		HOURLY RATE	HST	TOTAL HOURLY RATE
	Qualified Tradesperson Journeyman / Service Technician	\$	\$	\$

Regular Monday to Friday	Helper *	\$	\$	\$
Overtime Monday to Friday	Qualified Tradesperson Journeyman / Service Technician	\$	\$	\$
	Helper *	\$	\$	\$
Saturday, Sunday, Agreed Holidays	Qualified Tradesperson Journeyman / Service Technician	\$	\$	\$
	Helper*	\$	\$	\$
*Note: The rate for a helper must not be less than the minimum wage as per Provincial Labour Regulations.				

2. MANDATORY SUBMISSION REQUIREMENTS

- **Specification Form (Appendix A)**
- As per instructions on form
- **Submission Form (Appendix B)**
- Each bid must include a Submission Form - Appendix B
- **Pricing Form (Appendix C)**
- Each bid must include Pricing Form - Appendix C according to the instructions contained in this Appendix.
- **List of Tradespersons (Appendix D)**
- Each bid must include a List of Tradespersons (Appendix D).
- **List of Subcontractors (Appendix E)**
- Each bid must include a List of Subcontractors (Appendix E).
- **General Conditions and Agreement Between the University and Supplier for Maintenance/Service Contracts. (Appendix F)**
- **Work Schedule Mechanical Systems (Appendix G)**
- **Maintenance Service Report (Appendix H)**
- **Ozone Depleting Substance Emission Control Service Log (Appendix K)**
- **Belt and Filter Listing by Unit (Appendix L)**

APPENDIX D - LIST OF TRADESPERSONS

Herewith is the list of qualified tradespersons to be used by the Contractor and includes their qualifications and experience in the **MECHANICAL SYSTEMS & CONTROLS MAINTENANCE** and Miscellaneous Work trade/s as described in the scope of work. The only names that are to be submitted here are the names of qualified tradesperson; helpers do not need to be listed.

[illegible]

APPENDIX E – LIST OF SUBCONTRACTORS

Herewith is the list of Subcontractors referred to in General Conditions of the Tender documents. The Subcontractors and Suppliers whose bids have been used in the preparation of this tender must be listed in full, including work to be done by own forces (B.O.F.). The list will be subject to the approval of the University. “By own forces” will be considered valid and satisfactory only if the tender is recognized by the Newfoundland and Labrador construction Association or by the Road builders Association as being a “bona fide” Contractor and Supplier of that particular trade or item.

Tenders that do not include this list may be subject to rejection.

[illegible]

APPENDIX I

GENERAL CONDITIONS AND AGREEMENT BETWEEN THE UNIVERSITY AND SUPPLIER FOR MAINTENANCE/SERVICE CONTRACTS

1.1.0 DEFINITIONS

1.1.1 Contract Documents

The Contract Documents consist of the Instructions to Bidders, Executed Agreement between the Owner and the Contractor, General Conditions of Contract, Supplementary General Conditions of Contract, Special Conditions, Campus Safety and Health Requirements, Specifications, Drawings and such other documents forming part of the Open Call, including all amendments thereto incorporated before their execution and subsequent amendments thereto made pursuant to the provisions of the Contract or agreed upon between the parties. The successful Bidder's, Bid Submission and any Addenda to the Specifications issued during the bidding period shall also form part of the Contract Documents.

1.1.2 Owner, Contractor

The Owner and Contractor are the persons, firms or corporation identified as such in the Agreement. The term Owner and Contractor means the Owner and Contractor or their authorized representatives as designated by each party in writing.

1.1.3 Subcontractors

A Subcontractor is a person, firm or corporation having a direct contract with the Contractor to perform a part or parts of the Work included in the Contract, or to supply products worked to a special design according to the Contract Documents, but does not include one who merely supplies products not so worked.

1.1.4 The Work

The Work means the total of all services required by the Contract Documents.

1.1.5 Place of Work

The Place of Work is the designated site or location of the services of which the Work may be the whole or a part.

1.1.6 Products/Materials/Equipment

The term Products/Materials/Equipment means all materials, machinery, equipment and fixtures forming the Work as required by the Contract Documents but does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work and normally referred to as construction machinery and equipment.

1.1.7 Other Contractor

The term Other Contractor means any persons, firm or corporation employed by or having a separate contract directly or indirectly with the Owner for work other than that required by the Contract Documents.

1.1.8 Time

- a) The Contract Time is the time period stated in the Open Call Submission Form for performance of the Work.
- b) The term day, as used in the Contract Documents, shall mean the calendar day.
- c) "Regular Time" shall be defined as Monday to Friday, 8:00am to 4:00pm, on days not considered a holiday.
- d) "Overtime Monday to Friday" shall be defined as Monday to Friday, before 8:00am or after 4:00pm, on days not considered a holiday.
- e) "Saturday, Sunday and Holidays" shall be defined as Saturdays, Sundays and the following list of recognized holidays. For the purposes of this contract, the following days are considered holidays:

New Year's Day
Good Friday
Victoria Day
Memorial/Canada Day
Labour Day
Thanksgiving Day
Remembrance Day
Christmas Day
Boxing Day

1.1.9 Performance of the Work

Performance of the Work shall mean when the entire Work except those items arising from the provision **1.24.0 WARRANTY** has been performed to the requirements of the Contract Documents and is so certified by the Owner.

1.1.10 Changes in the Work

Changes in the Work means additions, deletions or other revisions to the Work within the general scope of Work as contemplated by the Contract Documents.

1.1.11 Extra Work

Extra Work means any additional work or service, the performance of which is beyond the scope of Work as contemplated by the Contract Documents.

1.2.0 DOCUMENTS

1.2.1

The Contract Documents shall be signed by the Owner and the Contractor.

1.2.2

Words and abbreviations which have well-known technical or trade meanings are used in the Contract Documents in accordance with such recognized meanings.

1.2.3

In the event of conflicts between Contract Documents, the following shall apply:

- a) Documents of later date shall govern;
- b) Figured dimensions shown on the drawings shall govern even though they may differ from scaled dimensions on the same drawing;
- c) Drawings of larger scale shall govern over those of smaller scale of the same date;
- d) Specifications shall govern over drawings;
- e) Special Conditions shall govern over Specifications;
- f) The General Conditions of Contract shall govern over Specifications;
- g) Supplementary General Conditions shall govern over the General Conditions of the Contract;
- h) The Executed Agreement between the Owner and the Contractor shall govern over all documents.

1.3.0 ADDITIONAL INSTRUCTIONS AND SCHEDULE OF WORK

- 1.3.1** During the progress of the Work, the Owner shall furnish to the Contractor such additional instructions as may be necessary to supplement the Contract Documents. All such instructions shall be consistent with the intent of the Contract Documents.
- 1.3.2** Additional instructions may include minor changes to the Work which affect neither the Contract Price nor the Contract Time.
- 1.3.3** Additional instructions may be in the form of drawings, samples, models or written instructions.
- 1.3.4** Additional instructions will be issued by the Owner with reasonable promptness and in accordance with any schedule agreed upon for such instructions.
- 1.3.5** The Contractor shall prepare and update, as required, a schedule indicating the timing of major activities of the Work. The schedule shall be designed to conform with the Contract Time. The schedule shall be submitted to the Owner within seven (7) days of the date of the Owner's letter of award. The contractor shall monitor the progress of the Work relative to the schedule and advise the Owner of any revisions required as a result of delays, as provided for in **1.4.0 DELAYS**, and indicating what action will be taken to complete the Work within the Contract Time.

1.4.0 DELAYS

- 1.4.1** If the Contractor is delayed in the performance of the Work by a Stop Work Order issued by any court or other public authority and providing that such order was not issued as the result of any act or fault of the Contractor or of anyone employed by them directly or indirectly then the Contract Time shall be extended for such reasonable time as the Owner may decide in consultation with the Contractor.
- 1.4.2** If the Contractor is delayed in the performance of the Work by civil disorders, labour disputes, strikes, lockouts, (including lockouts decreed or recommended for its members by a recognized Contractor's Association, of which the Contractor is a member) fire, unusual delay by common carriers or unavoidable casualties, or without limit to any of the foregoing, by any cause of any kind whatsoever beyond the Contractor's control, then the Contract Time shall be extended for such reasonable time as may be decided by the Owner in consultation with the Owner and the Contractor, but in no case shall the extension of time be less than the time lost as the result of the event causing the delay, unless such shorter extension of time be agreed to by the Contractor.

1.5.0 OWNER'S RIGHT TO PERFORM WORK, STOP WORK AND/OR TERMINATE CONTRACT

- 1.5.1** If the Contractor should be adjudged bankrupt or makes a general assignment for the benefit of creditors because of their insolvency or if a Receiver is appointed on account

of their insolvency, the Owner may, without prejudice to any other right or remedy they may have, by giving the Contractor or Receiver or Trustee in Bankruptcy written notice, terminate the Contract. If a Performance Bond has been provided by the Contractor guaranteeing faithful performance of the Work, the Owner shall give written notice to the Surety invoking the terms of the bond.

1.5.2 The University reserves the right to public open call any well-defined project. Generally, however, it is the intent that the Contractor will carry out related Work that are within their competence.

1.5.3 The Owner may notify the Contractor in writing that they are in default of their contractual obligations, if the Contractor:

- a) Fails to proceed regularly and diligently with the Work; or
- b) Without reasonable cause wholly suspends the carrying out of the Work before the completion thereof; or
- c) Refuses or fails to supply sufficient, properly skilled workmen for proper workmanship, products or construction machinery and equipment for the scheduled performance of the Work within an agreed time frame of receiving written notice from the Owner except in those cases provided in **1.4.0 DELAYS**; or
- d) Fails to make payments due to their Subcontractors, their Suppliers for their workmen; or
- e) Persistently disregards laws or ordinances, or the Owner's instructions; or
- f) Otherwise violates the provisions of their Contract to a substantial degree.

Such written notice by the Owner shall instruct the Contractor to correct the default. If a Performance Bond has been provided by the Contractor, a copy of such written notice will be provided to the Surety.

1.5.4 If the correction of the default cannot be completed within the timeline specified, the Contractor shall be considered to be in compliance with the Owner's instruction if they:

- a) Commence the correction of the default within the specified time; and
- b) Provide the Owner with an acceptable schedule for such correction; and
- c) Complete the correction in accordance with such schedule.

1.5.5 If the Contractor fails to correct the default within the time specified or subsequently agreed upon, the Owner may, without prejudice to any other right or remedy they may have:

- a) Correct such default and deduct the cost thereof from any payment due under the Contract; or
- b) Terminate the Contract by written notice to the Contractor. If a Performance Bond has been provided by the Contractor, the Owner will provide the Surety with a copy of such notice.

1.5.6 If the Owner terminates the Contract under the conditions set out above, they are entitled to:

- a) Take possession of the premises and products and utilize the temporary buildings, plants, tools, machinery and equipment, goods and materials, intended for, delivered to and placed on or adjacent to the Work and may complete the Work by whatever method they may deem expedient but without undue delay or expense.
- b) Withhold any further payments to the Contractor until the Work is finished.
- c) Upon performance of the Work, charge the Contractor the amount by which the full cost of finishing the Work.
- d) Invoke the terms of the Performance Bond if such Bond has been provided under the Contract.

1.5.7 The Contractor's obligation under the Contract as to the performance of the Work up to the time of termination will remain in force after such termination.

1.6.0 CONTRACTOR'S RIGHT TO STOP WORK AND/OR TERMINATE CONTRACT

1.6.1 If the Owner should be adjudged bankrupt or makes a general assignment for the benefit of creditors or if a Receiver is appointed on account of their insolvency, the Contractor may, without prejudice to any other right or remedy they may have, by giving the Owner written notice, terminate the Contract.

1.6.2 If the Work should be stopped or otherwise delayed for a period of thirty (30) days or more under an order of any court or other public authority and providing that such order was not issued as the result of any act or fault of the Contractor or of anyone directly or indirectly employed by him, the Contractor may, without prejudice to any other right or remedy they may have, by giving the Owner fifteen (15) days' written notice, terminate the Contract.

1.6.3 The Contractor may notify the Owner in writing that the Owner is in default of their contractual obligations if the Owner violates the provisions of the Contract to a substantial degree. Such written notice shall advise the Owner that if such default is not corrected within fifteen (15) days from the receipt of the written notice, the Contractor may, without prejudice to any other right or remedy they may have, stop the Work and/or terminate the Contract.

1.6.4 If the Contractor terminates the Contract under the conditions set out above, they shall be entitled to be paid for all work performed including reasonable overhead and profit and for any loss sustained upon products, construction machinery and equipment and other damages as the Contractor may have sustained as a result of the termination of the Contract.

1.7.0 OTHER CONTRACTORS

1.7.1 The Owner reserves the right to let separate contracts in connection with the services of which the Work is part or do certain work by their own forces.

1.7.2 The Owner shall, in such cases, coordinate the Work and insurance coverage of other Contractors as it affects the Work of this Contract.

1.7.3 The Contractor shall coordinate their work with that of other Contractors and connect as specified or shown in the Contract Documents. Any change in the costs incurred by the Contractor in the planning and performance of such work which was not shown or included in the Contract Documents as of the date of signing the Contract, shall be evaluated as provided under **1.13.0 VALUATION AND CERTIFICATION OF CHANGES IN THE WORK** and authorized as provided in **1.12.0 CHANGES IN THE WORK AND EXTRA WORK**.

1.7.4 The Contractor shall report to the Owner any apparent deficiencies in other Contractor's work which would affect this Contract immediately as they come to their attention and shall confirm such report in writing. Failure by the Contractor to so report shall invalidate any claims against the Owner by reason of the deficiencies of other Contractor's work except as to those of which they were not reasonably aware.

1.8.0 ASSIGNMENT

1.8.1 The Contractor shall not assign the Contract or any part thereof or any benefit or interest therein or thereunder without the written consent of the Owner.

1.9.0 SUBCONTRACTORS

1.9.1 The Contractor agrees to preserve and protect the rights of the Owner under the Contract with respect to any work to be performed under subcontract. The Contractor shall:

- a) Require their Subcontractors to perform their work in accordance with and subject to the terms and conditions of the Contract Documents; and
- b) Be fully responsible to the Owner for acts and omissions of their Subcontractors and of persons directly or indirectly employed by them as for acts and omissions of persons directly employed by them.

The Contractor, therefore, agrees that they will incorporate all the terms and conditions of the Contract Documents into all Subcontractor Agreements they enter into with their Subcontractors.

1.9.2 The Contractor shall employ those Subcontractors proposed by them in writing and accepted by the Owner prior to the signing of the Contract for such portions of the Work as may be designated in the bidding requirements.

1.9.3 The Owner may, for reasonable cause, object to the use of a proposed Subcontractor and require the Contractor to employ another Subcontractor.

1.9.4 In the event that the Owner requires a change from any proposed Subcontractor, the Contract price shall be adjusted by the difference in cost occasioned by such required change.

1.9.5 The Contractor shall not be required to employ as a Subcontractor any person or firm to whom they may reasonably object.

1.9.6 Nothing contained in the Contract Documents shall create any contractual relationship between any Subcontractor and the Owner.

1.10.0 DISPUTES

1.10.1 If a dispute or claim cannot be resolved to the satisfaction of both parties, either party may refer the matter to such judicial tribunal as the circumstances require.

1.11.0 INDEMNIFICATION

1.11.1 Except as provided in Paragraph 1.9.2, the Contractor shall be liable for and shall indemnify and hold harmless the Owner, their agents and employees from and against all claims, demands, losses, costs, damages, actions, suits or proceedings whatsoever arising under any statute or Commonlaw:

- a) In respect of personal injury to or the death of any person whatsoever arising out of or in the course of or caused by the carrying out of the Work; and
- b) In respect of any injury or damage whatsoever to any property, real or personal or any chattel real, insofar as such injury or damage arises out of or in the course of or by reason of the carrying out of the Work.

1.11.2 The Contractor shall not be liable under Paragraph 1.12.1 if the injury, death, loss or damage is due to any act or neglect of the Owner, their agents or employees.

1.12.0 CHANGES IN THE WORK AND EXTRA WORK

1.12.1 The Owner may, without invalidating the Contract, make changes by altering, adding to or deducting from the Work, with the Contract Price and the Contract Time being adjusted accordingly; and

1.12.2 No change in the Work shall be made without prior written order from the Owner, and no claim for an addition or deduction to the Contract Price or change in the Contract Time shall be valid unless so ordered and at the same time valued or agreed to be valued as provided in **1.13.0 VALUATION AND CERTIFICATION OF CHANGES IN THE WORK**. Signed faxed copies are acceptable at the discretion of the Owner.

1.13.0 VALUATION AND CERTIFICATION OF CHANGES IN THE WORK

1.13.1 The value of any change shall be determined in one or more of the following methods:

- a) By estimate and acceptance in a lump sum;
- b) By unit prices subsequently agreed upon;
- c) By cost and a fixed or percentage fee.

In the case of changes in the Work valued as outlined in Paragraph 1.14.1, the Contractor will submit an itemized estimate of all materials and labour (including Subcontractor's work) to complete the change.

In the case of changes in the Work as valued in Paragraph 1.14.1, the Contractor shall submit detailed invoices, vouchers and time sheets for all materials and labour to complete the change.

The submissions in both cases shall be in the manner acceptable to the Owner and will show separately the following percentages for overhead and profit:

- i. Subcontractors shall include, in the breakdown, their 15 percent mark-up (10 percent of the estimated cost for the overhead and 5 percent for profit).
- ii. The Contractor shall include, in the breakdown, the percentages as outlined in (i) for the overhead and profit on their portion of the Work.

- iii. The Contractor shall add 10 percent to the Subcontractor's pricing for their own profit and overhead combined.
- 1.13.2** Notwithstanding the provisions of Paragraph 1.14.1, in case of changes in the Work, the amount charged for equipment rentals shall be that provided in the rental Contract, and no additional amount shall be paid as markup for overhead or profit for the Contractor or Subcontractor.
- 1.13.3** In the case of changes in the Work to be paid for under methods (b) and (c) of Paragraph 1.13.1, the form of presentation of costs and methods of measurement shall be agreed to by the Owner and Contractor before proceeding with the change. The Contractor shall keep accurate records, as agreed upon, of quantities or costs and present an account of the cost of the change in the Work, together with vouchers where applicable.

1.14 APPLICATION FOR PAYMENTS

- 1.14.1** The University shall make payment to the Supplier within thirty (30) days of an approved claim submitted by the Supplier as per the instructions outlined in the contract documents.

Notwithstanding this clause or any other provision of this Contract, the University may, in the event of a claim by the University against the Supplier for damages arising out of the performances or non- performance of the Contract, withhold payment of any amount equal to the alleged damages as set by the Owner until the liability for damages is established, and no amount of interest will be paid in amounts held under this clause.

1.15.0 TAXES AND DUTIES

- 1.15.1** Unless otherwise stated in the Supplementary General Conditions, the Contractor shall pay all applicable government sales taxes, goods and services taxes, customs duties and excise taxes with respect to the Contract.
- 1.15.2** Any increase or decrease in costs to the Contractor due to changes in such taxes and duties after the date of the Agreement and up to the agreed date of completion shall increase or decrease the Contract Price accordingly. If the Owner so desires, the Contractor is to cooperate with the Owner and permit access to books and records in order to establish the amount of such taxes involved.
- 1.15.3** The Contractor shall maintain full records of their estimates and of actual costs to them of the Work, together with all proper open calls, quotations, contracts, correspondence, invoices, receipts, payments to Subcontractors and Suppliers and vouchers relating thereto and shall make them available to audit and inspection by the Owner, the Auditor General for Newfoundland and Labrador or by persons acting on their behalf and shall furnish them with any information which they may require from time to time in connection with such records.

1.16.0 LAWS, NOTICES, PERMITS AND FEES

- 1.16.1** The laws of the Province of Newfoundland and Labrador shall govern the Work. Any disputes are to be heard/resolved in Newfoundland and Labrador.
- 1.16.2** The Contractor shall obtain all permits, licenses and certificates and pay all fees required for the performance of the Work which are in force at the date of open call closing with the following exceptions:
 - a) The Contractor shall obtain building permits for the Work where required.

- b) The Contractor shall not include the obtaining of permanent easements or rights of servitude.

1.16.3 The Contractor shall give all required notices and comply with all laws, ordinances, rules, regulations, codes and order of all authorities having jurisdiction relating to the Work, to the preservation of the public health and well-being of the University community safety which are or become in force during the performance of the Work.

1.16.4 The Contractor shall not be responsible for verifying that the Contract Documents are in compliance with the applicable laws, ordinances, rules, regulations and codes relating to the Work. If the Contract Documents are a variance therewith or changes which necessitate modifications to the Contract Documents are required by the authorities having jurisdiction subsequent to the date of open call closing, the Contractor shall notify the Owner in writing requesting direction immediately when any such variance or change is observed by them. The Owner will make the changes required to the Contract Documents, and the Contract Price and/or Contract Time shall be adjusted in accordance with **1.12.0 CHANGES IN THE WORK AND EXTRA WORK** and evaluated in accordance with **1.13.0 VALUATION AND CERTIFICATION OF CHANGES IN THE WORK**.

1.16.5 If the Contractor fails to notify the Owner in writing and obtain their direction as required in 1.16.4 and performs any work knowing it to be contrary to any laws, ordinances, rules, regulation, codes and orders of any authority having jurisdiction, they shall be responsible for and shall correct any violations thereof and shall bear all costs, expense and damages, attributable to their failure to comply with the provisions of such laws, ordinances, rules, regulations, codes and orders.

1.17.0 PATENT FEES

1.17.1 The Contractor shall pay all royalties and patent license fees required for the performance of the Contract and such royalties or fees shall be deemed to have been included in the Contract Price. They shall hold the Owner harmless from and against all claims, demands, losses, costs, damages, actions, suits or proceedings arising out of the Contractor's performance of the Contract which are attributable to an infringement or an alleged infringement of any patent or invention by the Contractor or anyone for whose acts they may be liable.

1.17.2 The Owner shall hold the Contractor harmless against all claims, demands, losses, costs, damages, actions, suits or proceedings arising out of the Contractor's performance of the Contract which are attributable to an infringement or an alleged infringement of any patent or invention in executing anything for the purpose of the Contract, the model, plan or design of which was supplied to the Contractor by the Owner.

1.18.0 WORKERS' COMPENSATION

1.18.1 The Contractor shall be registered with and shall remain in good standing with the NL Workplace Health, Safety & Compensation Commission during the term of their Contract.

1.18.2 At any time during the term of the Contract when requested by the Owner, the Contractor shall provide evidence of compliance by themselves and any or all of their Subcontractors.

1.19.0 LIABILITY INSURANCE

1.19.1 Comprehensive General Liability Insurance

- a) Without restricting the generality of **1.11.0 INDEMNIFICATION**, the Contractor shall provide and maintain, either by way of a separate policy or by an endorsement to their existing policy, Comprehensive General Liability Insurance acceptable to the Owner and subject to limits set out in detail below, inclusive per occurrence for bodily injury, death and damage to property including loss of use thereof.
- b) The insurance shall be in the joint names of the Contractor and the Owner. It shall also cover as named Insureds all Subcontractors and anyone employed directly or indirectly by the Contractor or their Subcontractors to perform a part or parts of the Work but excluding Suppliers whose only function is to supply and/or transport products to the project site.
- c) The insurance shall preclude subrogation claims by the Insurer against anyone insured thereunder.
- d) The Comprehensive General Liability Insurance will not be limited to, but shall include coverage for:
 - i. Premises and Operations Liability
 - ii. Products or Completed Operations Liability
 - iii. Blanket Contractual Liability
 - iv. Cross Liability
 - v. Elevator and Hoist Liability
 - vi. Contingent Employer's Liability
 - vii. Personal Injury Liability arising out of false arrest, detention or imprisonment or malicious prosecution, libel, slander or defamation of character, invasion of privacy or wrongful entry
 - viii. Shoring, blasting, excavating, underpinning, demolition, pile driving and caisson work, work below ground surface, tunneling and grading, as applicable
 - ix. Liability with respect to non-owned, licensed vehicles.

1.19.2 The Contractor shall provide and maintain liability insurance in respect of owned licensed vehicles subject to limits set out in detail in **Article 1.19.0 LIABILITY INSURANCE subsection 1.19.6**.

1.19.3 All liability insurance shall be maintained continuously until twelve (12) months after the contract end date.

1.19.4 The Contractor shall provide the Owner with evidence of all liability insurance prior to the commencement of the Work and shall promptly provide the Owner with a certified true copy of each insurance policy.

1.19.5 All liability insurance policies shall contain an endorsement to provide all Named Insureds with prior notice of changes and cancellations. Such endorsements shall be in the following form:

"It is understood and agreed that the coverage provided by this policy will not be changed or amended in any way nor cancelled until thirty (30) days after written notice of such change or cancellation shall have been given to all Named Insureds."

1.19.6 The Contractor shall protect themselves and indemnify and save the Owner harmless from any and all claims which may arise from the Contractor's performance or failure of performance of the Contract and for this purpose shall, without restricting the generality of the foregoing, maintain insurance acceptable to the Owner to the following limits:

- a) Where the estimated contract value exceed \$100,000 (inclusive of HST)
 - Comprehensive General Liability = \$3,000,000.00;
 - Standard Automobile Policy Liability = \$3,000,000.00.
- b) Where the estimated contract value is less than \$100,000 (inclusive of HST)
 - Comprehensive General Liability = \$2,000,000.00;
 - Standard Automobile Policy Liability = \$2,000,000.00.

Prior to the commencement of any work hereunder, the Contractor shall file with the Owner a copy of each insurance policy and certificate required.

1.20.0 PROPERTY INSURANCE

1.20.1 Such coverage shall be provided by EITHER an ALL RISKS Builders' Risk Policy OR by a combination of a Coverage and Malicious Damage Endorsements and a Builder's Risk Difference in Conditions Policy providing equivalent coverage of Piers, Wharves and Docks, Government Structures Policy.

1.20.2 The policies shall insure against all risks of direct loss or damage. Such coverage shall apply to:

- a) All products, labour and supplies of any nature whatsoever, the property of the Insureds or of others for which the Insureds may have assumed responsibility, to be used in or pertaining to the site preparations, demolition of existing structures, erections and/or fabrication and/or reconstruction and/or repair of the insured project, while on the site or in transit, subject to the exclusion of the property specified.
- b) The installation, testing and any subsequent use of machinery and equipment including boilers, pressure vessels or vessels under vacuum.
- c) Damage to the Work caused by an accident to and/or the explosion of any boiler(s) or pressure vessel(s) forming part of the Work.

Such coverage shall exclude construction machinery, equipment, temporary structural and other temporary facilities, tools and supplies used in the construction of the Work and which are not expendable under the Contract.

1.20.3 The Contractor shall provide the Owner with evidence of all insurance prior to the commencement of the Work and shall promptly provide the Owner with a certified true copy of each insurance policy.

Policies provided shall contain an endorsement to provide all Named Insureds with prior notice of changes and cancellations. Such endorsements shall be in the following form:
"It is understood and agreed that the coverage provided by this policy will not be

changed or amended in any way or cancelled until thirty (30) days after written notice of such change or cancellation shall have been given to all Named Insureds."

1.20.4 All such insurance shall be maintained continuously until ten (10) days after the contract end date. All such insurance shall provide for the Owner to take occupancy of the Work or any part thereof during the terms of this insurance.

1.20.5 The policies shall provide that, in the event of a loss, payment for damage to the Work shall be made to the Owner and the Contractor as their respective interests may appear. Damage shall not affect the rights and obligations of either party under the Contract except that the Contractor shall be entitled to such reasonable extension of time for Performance of the Work as the Owner may decide.

1.20.6 The Contractor and/or their Subcontractors, as may be applicable, shall be responsible for any deductible amounts under the policies and for providing such additional insurance as may be required to protect the Insureds against loss on items excluded from the policies.

1.21.0 PROTECTION OF WORK AND PROPERTY

1.21.1 The Contractor shall protect the property adjacent to the project site from damage as the result of their operations under the Contract.

1.21.2 The Contractor shall protect the Work and the Owner's property from damage and shall be responsible for any damage which may arise as the result of their operations under the Contract except damage which occurs as the result of:

- a) Errors in the Contract documents; and/or
- b) Acts or omissions by the Owner, their agents, employees or other Contractors.

1.21.3 Should the Contractor, in the performance of this Contract, damage the Work and/or Owner's property and/or property adjacent to the place of the Work, the Contractor shall be responsible for making good such damage at their own expense or pay all costs incurred by others in making good such damage.

1.21.4 Should any damage occur to the Work and/or Owner's property for which the Contractor is not responsible as provided in of **1.11.0 INDEMNIFICATION**, they shall make good such damage to the Work and, if the Owner so directs, to the Owner's property.

1.21.5 The Contractor shall be completely responsible for the safety of the Work as it applies to protection of the public and property and construction of the Work.

The codes that must be followed and enforced for safety are:

- a) The National Building Code, Part 8, Safety Measures at Construction and Demolition Sites (Latest Edition);
- b) Canadian Code for Construction Safety (Latest Edition) as issued by the Associate Committee of the National Building Code;
- c) The Occupational Health and Safety Act of Newfoundland and Labrador (most current version) and Regulations.

1.21.6 Any person not following stipulated safety regulations shall be removed from site and not permitted to return until expressly authorized by the owner.

1.22.0 DAMAGES AND MUTUAL RESPONSIBILITY

- 1.22.1** If either party to this Contract should suffer damage in any manner because of any wrongful act or neglect of the other party or anyone employed by them then they shall be reimbursed by the other party for such damages. The party reimbursing the other party shall be subrogated to the rights of the other party in respect of such wrongful act or neglect if it be that of a third party.
- 1.22.2** Claims under this Contract shall be made in writing to the party liable within two (2) weeks after the first observance of such damage and may be adjusted by agreement or in the manner set out in **1.10.0 DISPUTES**.
- 1.22.3** If the Contractor has caused damage to any Other Contractor on the Work, the Contractor agrees upon due notice to settle with such other Contractor by agreement or arbitration, if they will so settle. If such other Contractor sues the Owner on account of any damage alleged to have been sustained, the Owner shall notify the Contractor and may require the Contractor to defend the action at the Contractor's expense. If any final order or judgment against the Owner arises therefrom, the Contractor shall pay or satisfy it and pay all associated costs incurred by the Owner.
- 1.22.4** If the Contractor becomes liable to pay or satisfy any final order, judgment or award against the Owner then the Contractor, upon undertaking to indemnify the Owner against any and all liability for costs, shall have the right to appeal in the name of the Owner such final order or judgment to any and all courts of competent jurisdiction.
- 1.22.5** Should the Contractor fail to meet the date to substantially perform the Work, as indicated in the Agreement between the Owner and the Contractor, and is unable to provide justification acceptable to the Owner for the delay then the Contractor will be held liable for any liquidated damages and may be held liable for payment to the Owner for other damages and losses suffered by the Owner as a result of the Contractor's delay including additional costs for Engineering/Architectural supervision.

1.23.0 BONDS

- 1.23.1** The Contractor shall promptly provide the Owner the surety bonds called for in the open call Documents.
- 1.23.2** All such bonds shall be issued by a duly incorporated surety company approved by the Owner and authorized to transact a business or surety-ship in the Province of Newfoundland and Labrador.
- 1.23.3** If bonds are called for in the open call Submission form, Instructions to Bidders or Supplementary General Conditions, the costs attributable to providing such bonds shall be included in the open call price.
- 1.23.4** Should the Owner require the provision of a bond or bonds by the Contractor other than those provided for under 1.23.3, the Contract Price shall be increased by all costs attributable to providing such bonds.

1.24.0 WARRANTY

- 1.24.1** The Contractor shall be responsible for the proper performance of the Work to the extent that the design and specifications permit such performance.

1.24.2 Subject to Paragraph 1.24.1, the Contractor agrees to correct promptly, at their own expense, defects or deficiencies in the Work which appear prior to and during the period of one (1) year from the date of Performance of the Work or such longer periods as may be specified for certain products or work.

1.24.3 The Contractor shall correct and/or pay for any damage to other work resulting from any corrections required under the conditions of Paragraph 1.24.2.

1.24.4 Neither the Owner's final certificate nor payment thereunder shall relieve the Contractor from their responsibility hereunder.

1.24.5 The Owner shall give the Contractor written notice of observed defects promptly.

1.25.0 CONTRACTOR'S RESPONSIBILITIES AND CONTROL OF THE WORK

1.25.1 The Contractor shall have complete control of the Work and shall effectively direct and supervise the Work to ensure conformance with the requirements of the Contract Documents. They shall be solely responsible for all construction means, methods, techniques, sequences and procedures and for coordinating all parts of the Work under the Contract.

1.25.2 The Contractor shall have the sole responsibility for the design, erection, operation, maintenance and removal of temporary structural and other temporary facilities and the design and execution of construction methods required in their use. The Contractor shall engage and pay for registered professional engineering personnel skilled in the appropriate disciplines 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.

1.25.3 The Contractor shall carefully examine the Contract Documents and shall promptly report to the Owner any error, inconsistency or omission they may discover. The Contractor shall not be held liable for any damage resulting from any such errors, inconsistencies or omissions in the Contract Documents which they may discover, and they shall not proceed with the Work affected until they have received corrected or missing information from the Owner.

1.26.0 SUPERINTENDENCE

1.26.1 The Contractor shall employ a competent Superintendent and necessary assistants who shall be in attendance at the Work site at all times while the Work is being performed.

1.26.2 The Superintendent shall be satisfactory to the Owner and shall not be changed except for good reason and only then after consultation with and agreement by the Owner.

1.26.3 The Superintendent shall represent the Contractor at the place of work and instructions given to them by the Owner shall be held to have been given to the Contractor. Important instructions shall be confirmed to the Contractor in writing, other instructions will be so confirmed if requested.

1.27.0 LABOUR AND PRODUCTS

1.27.1 Unless otherwise stipulated elsewhere in the Contract Documents, the Contractor shall provide and pay for all labour, products, tools, construction equipment and machinery, water, heat, light, power, transportation and other facilities and services necessary for the requirements of the Contract Documents.

- 1.27.2** All products provided shall be new unless otherwise specified in the Contract Documents. Any products which are not specified shall be of a quality best suited to the purpose required, and their use shall be subject to the approval of the Owner.
- 1.27.3** In carrying out their duties under this Contract, the Contractor shall comply with all Provincial and Federal legislation respecting labour and the employment of labour, where applicable, including the Labour Standards Code and shall not operate in conflict with the Human Rights legislation. In the employment of labour, preference should be given to persons normally residing in Newfoundland and Labrador.
- 1.27.4** The Contractor and Subcontractors shall maintain and keep available for inspection by the Owner, a record of the names and addresses of all persons employed to perform the Work.
- 1.27.5** The Contractor shall maintain good order and discipline among their employees engaged on the Work and shall employ on the Work only employees skilled in their various trades.
- 1.27.6** There shall be no discrimination in the selection of workers for employment on the project in respect to race, religion, views or political affiliation.
- 1.27.7** The Contractor shall pay fair wages and shall pay rates of wages and allowances to the various classes of labour not less favourable than those prevailing in the area where the Work is being performed.
- 1.27.8** The Contractor shall be aware that the majority of hourly-paid and maintenance workers employed within the University are unionized. It is of utmost importance that any labour force used by the Contractor neither disrupts nor be disrupted by any labour conditions existing on the University campus. Failure by the Contractor to familiarize themselves with labour conditions on Campus or disruptions to the Contractor's own labour force because of labour conditions on Campus will not relieve them of their obligations to furnish all labour and materials necessary to carry out the requirements of the Contract.

1.28.0 SUBSURFACE CONDITIONS

- 1.28.1** The Contractor shall promptly notify the Owner in writing if, in their opinion, the subsurface conditions at the work site differ materially from that indicated or reasonably inferred from the Contract Documents.
- 1.28.2** After prompt investigation, should the Owner determine that conditions do differ materially, they shall issue appropriate instructions for changes in the Work.

1.29.0 USE OF THE WORK

- 1.29.1** The Contractor shall confine their apparatus, the storage of products and the operations of their employees to limits indicated by laws, ordinances, permits or by instructions of the Owner and shall not unreasonably encumber the premises with their products.
- 1.29.2** The Contractor shall not load or permit to be loaded any part of the Work with a weight or force that will endanger its safety.

- 1.29.3** Unless otherwise provided, the Contractor shall, at their own expense and without expense to the Owner, make suitable provision to accommodate all traffic, either pedestrian or vehicular, over or around the project upon which work is being performed in a manner satisfactory to the Owner.
- 1.29.4** The Contractor shall provide and maintain at their own expense such fences, barriers, signs, lights and watchmen as may be necessary to prevent avoidable accidents to University Users or to the public generally.
- 1.29.5** All work shall be executed with the least possible interference with or disturbance to personnel and the Public. The Contractor shall cooperate with the person in charge of the premises. The Contractor shall ascertain from the Owner's representative the hours during which the work shall be performed, conform to the directions of the representative and to the directions of the said representative in determining the order in which the work shall be done.
- 1.29.6** The Contractor shall carry out all work required to maintain the building services and to provide necessary access for personnel and vehicles whenever new work affects occupied portions of the building.
- 1.29.7** Before final completion of the work, the Owner shall be entitled to make use of any portion of the Work which is completed and fit for use for the installation of equipment, storage and furniture, supplies, etc., and for occupancy, if such can be arranged without interfering with the progress of the Work.

1.30.0 INSPECTION OF WORK

- 1.30.1** The Owner, the Owner and their authorized representatives shall have access to the Work for inspection wherever it is in preparation or progress. The Contractor shall cooperate to provide reasonable facilities for such access.
- 1.30.2** If parts of the Work are designated for special tests, inspections or approvals in the Contract Documents or by the Owner's instructions or the laws or ordinances of the place of the Work, the Contractor shall give the Owner timely notice requesting inspection. Inspection by the Owner shall be made promptly. The Contractor shall arrange for inspections by other authorities and shall notify the Owner with timely notice of the date and time.
- 1.30.3** If the Contractor covers or permits to be covered any of the Work that is designated for special tests inspections or approvals, before such special tests, the Contractor shall, if so instructed by the Owner, uncover the Work, have the inspection satisfactorily completed and make good the Work at their own expense.
- 1.30.4** The Owner may order any part of the Work to be specifically examined, should they believe such work not to be in accordance with the requirements of the Contract Documents. If upon examination such work is found not to be in accordance with the requirements of the Contract Documents, the Contractor shall correct such work and pay the cost of examination and correction. If such work is found to be in accordance with the requirements of the Contract Documents, the Owner will pay the cost of examination and replacement.
- 1.30.5** The Contractors shall furnish promptly to the Owner all certificates and inspection reports relating to the Work.

1.31.0 REJECTED WORK

- 1.31.1** Defective work, whether the result of poor workmanship, use of defective products or damage through carelessness or other act or omission of the Contractor and whether incorporated in the Work or not which has been rejected by the Owner as failing to conform to the Contract Documents, shall be removed promptly from the premises by the Contractor and replaced and/or re-executed promptly in accordance with the Contract Documents at the Contractor's expense.
- 1.31.2** Other Contractors' work destroyed or damaged by such removals or replacements shall be made good promptly at the Contractor's expense.
- 1.31.3** If, in the opinion of the Owner, it is not expedient to correct defective work not done in accordance with the Contract Documents, the Owner may deduct from the Contract Price the difference in value between the Work as done and that called for by the Contract, the amount of which shall be determined in the first instance by the Owner.

1.32.0 SHOP DRAWINGS AND SAMPLES

- 1.32.1** The Supplier shall furnish for review by the Owner all shop drawings or samples which may be required by the Specifications in such numbers or form as stated in the Specifications.

1.33.0 MATERIALS AND SUBSTITUTIONS

- 1.33.1** Materials described and named in the specifications with "or approved equal" clause after the Manufacturer's name are so described as to the establish quality only, and substitutions of a similar Owner's approval is obtained. Substitutions after the award may be considered under special circumstances.
- 1.33.2** Requests for substitutions must be accompanied by sufficient information in the form of shop drawings, manufacturer's literature, samples and other data to permit proper investigation of the substitutes proposed, together with any increase or decrease in price.
- 1.33.3** Whenever a substitute is proposed for approval, the Contractor shall guarantee that such proposed substitute will not adversely affect the space requirements allocated on the drawings for the material specified, and they shall agree to bear any additional expense incurred due to their use of the proposed substitute.
- 1.33.4** The Owner may accept or reject any or all of the proposed substitutions as they see fit, and their decision on a question of equality shall be final.

1.34.0 TIME OF ESSENCE

- 1.34.1** Time is of the essence of the Contract.

1.35.0 CLEANUP AND FINAL CLEANING OF THE WORK

- 1.35.1** The Contractor shall maintain the Work in a tidy condition and free from the accumulation of waste products and debris, other than that caused by the Owner, Other Contractors or their employees.
- 1.35.2** When the Work is substantially performed, the Contractor shall remove their surplus products, tools, construction machinery and equipment not required for the performance of the remaining Work. They shall also remove waste products and debris, other than that caused by the Owner, Other Contractors or their employees, and leave the Work clean and suitable for occupancy by the Owner, unless otherwise specified.

1.35.3 When the Work is totally performed, the Contractor shall remove their surplus products, tools, construction machinery and equipment. They shall also remove waste products and debris other than that caused by the Owner, Other Contractors or their employees

2. ENVIRONMENTAL HEALTH AND SAFETY REQUIREMENTS

Maintaining a healthy and safe environment for all members of the campus community, as well as visitors, is a priority with the University. This involves a commitment from all sectors of the campus community and extends to outside agencies having occasion to come on campus to conduct business.

The following requirements will apply to all work undertaken by contractors and service personnel on any University property or for any work undertaken on behalf of the Owner.

2.1.0 REGULATIONS, CODES AND STANDARDS

Contractors shall be familiar with and abide by provisions of various safety codes and standards applicable to the work performed and should refer to 1.21.5 of General Conditions.

In particular, strict adherence to the Provincial Occupational Health and Safety Act and Regulations and with the National Building Code of Canada, Part 8 is required.

2.2.0 GENERAL SAFETY REGULATIONS

- a Contractors/service agencies shall ensure that members of the campus community are not endangered by any work or process in which they may be engaged. Work areas shall be adequately barricaded, and if dust or fumes are generated, suitable enclosures shall be installed to contain such emissions.
- b No material shall be stored in such a way as to obstruct walkways or represent a danger to pedestrian or vehicular traffic.
- c Adequate protection shall be provided to prevent the possibility of goods falling from scaffolding or elevated areas. Areas where goods are being loaded or off loaded shall be barricaded or otherwise protected to prevent unauthorized entry. Appropriate warning signs must be posted.
- d The work areas must be kept reasonably clean and free from debris which could constitute a fire hazard. Care must be taken to ensure that the work process does not activate fire alarm detection devices. (Generation of dust and fumes can activate smoke detectors causing a false alarm).
- e Due consideration shall be given to fire safety in buildings. Flammable goods must be kept away from sources of ignition. No work involving the use of open flame devices must be undertaken around flammable solvents or gases.
- f Some University buildings contain asbestos and other hazardous materials. Do not alter or disturb any goods believed to contain asbestos (unless this is a duly authorized part of the project). Consult with University officials before proceeding with any work.

- g Safety Data Sheets shall be procured for any hazardous product used on campus. Such sheets shall be made readily available for consultation as required under the Workplace Hazardous Materials Information System (WHMIS).

NOTE: The above requirements are not to be considered all-inclusive and are considered to be complementary to the safety requirements outlined in the agreement between the University and Supplier. Certain conditions and circumstances may require adherence to additional safety requirements.

As a general requirement, contract/service personnel are expected to conduct all work on campus in a professional and safe manner and to give priority to the safety and welfare of members of the campus community.

2.3.0 CONTRACTOR SAFETY MANAGEMENT

- 2.3.1** All Contractors and Subcontractors to be used by the Contractor in the execution of the Contract shall be required to submit confirmation of a current third party occupational health and safety program certification (Letter of Assurance). These may include, but not be limited to, Certificate of Recognition (COR), OHSAS 18001, and CSA Z.1000.

- 2.3.2** All Contractors and Subcontractors shall be required to review and follow all requirements of the MUN Contractor Safety Management Element.

https://www.mun.ca/health_safety/OHSMS/Contractor_Safety_Management_v1.pdf

- 2.3.3** Prior to Contract award, the Contractor will be required to provide the Information requested in 2.3.5 below.

- 2.3.4** All Contractors and Subcontractors are required to give the Owner written permission to approach Provincial regulatory authorities for applicable safety-related information on their respective firms.

- 2.3.5** The Contractor must also provide the following:

- (a) Health and Safety policy statement.
- (b) Safety Program table of contents.
- (c) Site Hazard Assessment.
- (d) Letter of Assurance for Compliance.

- 2.3.6** In lieu of a Subcontractors third party program, Contractors shall be required to integrate the Subcontractor(s) into the Contractors program and provide proof of same.

- 2.3.7** Memorial reserves the right to request and audit the full safety program of Contractors and Subcontractors and their associated documentation. This documentation may include, but not be limited to the following:

- (a) Safety Program and/or Manual
- (b) Site Hazard Assessment
- (c) Letter of Assurance for Compliance (third party certification)
- (d) Applicable documented safe work practices;
- (e) Inspection reports and schedules;
- (f) Required employee safety training certifications and qualifications;
- (g) Updated list of OHS Committee and/or a worker health and safety representative, or workplace health and safety designate;
- (h) Proof of completion of the Owner's contractor safety orientation within the prior three years.

2.3.8 Memorial University reserves the right to refuse or cancel any contract with a Contractor that is not in compliance with Memorial's standards for Safety.

2.3.9 The University reserves the right to stop any work or portion of work where no documentation can be produced on site which identifies the hazards presented by a piece of work, safe work procedures for work or certification of employees performing work. The Contractor is liable for any costs incurred by affected parties associated with such a stoppage.

2.3.10 Prior to coming to site all workers must complete the Contractor Safety training found on the MUN website.

https://www.mun.ca/health_safety/training/

2.4.0 ACCESS TO SITE

2.4.1 All Contractors and Subcontractors to be used in the execution of the Contract shall give advance notification of when they will be on site. Any work to be performed outside of Regular Time must have advance approval of the Owner.

Any discontinuation of the Work which causes a Contractor or their Subcontractors to suspend operations onsite will require the following:

- a) Contractor/Subcontractors shall notify the Owner of the stop work date.
- b) Contractor/Subcontractors shall ensure the site is left in a safe and secure condition.
- c) Contractor/Subcontractors shall ensure that locks and tags on mechanical and/or electrical systems are removed and, where necessary, replaced by the University.
- d) Contractor/Subcontractors shall not return to site without expressed prior permission from the Owner.

WORK SCHEDULE - MECHANICAL SYSTEMS AND CONTROLS SERVICE/MAINTENANCE CONTRACT APPENDIX "G"

Site		Grenfell Campus											
		Month											
		Apr-26	May-26	Jun-26	Jul-26	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26
DDC	EBI Building Manager	X	X	X	X	X	X	X	X	X	X	X	X
Automation Tech	Controller 1	X											
	Controller 2	X											
	Controller 3	X											
The Controls Architecture	Controller 4		X										
APPENDIX "G" (to be produced and maintained by Contractor) is to show the network of controllers, AHUs, VAV boxes, systems / equipment, etc. Listed Controllers are for sample schedule only. Service intervals shall be provided by Contractor upon award of tender based on the Controls Architecture	Controller 5		X										
	Controller 6			X									
	Controller 7			X									
	Controller 8				X								
	Controller 9				X								
	Controller 10					X							
	Controller 11					X							
	Controller 12						X						
	Controller 13						X						
	Controller 14							X					
	Controller 15							X					
	Controller 16								X				
	Controller 17								X				
	Controller 18									X			
	Controller 19									X			
	Controller 20										X		
	Controller 21										X		
	Controller 22											X	
	Controller 23											X	
	Controller 24												X
	Controller 25												X
	Controller 26												X
	Controller 27												X

WORK SCHEDULE - MECHANICAL SYSTEMS AND CONTROLS SERVICE/MAINTENANCE CONTRACT APPENDIX "G"

Pneumatics		Apr-26	May-26	Jun-26	Jul-26	8/1/205	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26
Pneumatic Mechanic	Air Compressor		X						X				
	Air Dryer, Air filters & PRV		X						X				
	Motorized Dampers		X						X				
	Variable Inlet Vanes		X						X				
	Controlled Devices		X						X				
	Safeties		X						X				
	Control Valves		X						X				
	Sensors		X						X				
	Controllers		X						X				
	Thermostats		X						X				
	Humidistats		X						X				
	Panels & Gauges		X						X				
	Chillers		X				X	X	X	X	X	X	
HVAC		Apr-26	5/1/206	Jun-26	Jul-26	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26
Journeyman HVAC Mech	A01012 AHU Food Court		3M			3M			3M			12M	
	A0123 Computer Area (C&C)		3M			3M			3M			12M	
	A0178 Mac Lab . C&C		3M			3M			3M			12M	
Prefilters done 3 monthly	A0100 GYM Unit		3M			3M			3M			12M	
Prefilters & Main Filters	A0103 Admin Unit		3M			3M			3M			12M	
done 12 Monthly	A0113 Residence West Wing		3M			3M			3M			12M	
Note some units only has	A0107 Residence East Wing		3M			3M			3M			12M	
one filter bank.	A0102 GSCU Unit		3M			3M			3M			12M	
See APPENDIX "G"	A0101 Serves 1st Floor GS		3M			3M			3M			12M	
Bearing Greasing Belt adjustment shall coincide with Filter changes	A0102 Chem Labs		3M			3M			3M			12M	
	A0383 Heat Recovery Unit		3M			3M			3M			12M	
	A0380 AHU - 1		3M			3M			3M			12M	
	A0396 AHU - 2		3M			3M			3M			12M	
	A0122 Dextron pool unit		3M			3M			3M			12M	
	A0180 Rock Room		3M			3M			3M			12M	
	C0102 AHU -1 Library		3M			3M			3M			12M	
	C0106 AHU-2 Library		3M			3M			3M			12M	
	D0103 AHU-2 Theatre		3M			3M			3M			12M	
	D0105 AHU-3 Gen Vent.		3M			3M			3M			12M	
	D0100 AHU-1 Gallery		3M			3M			3M			12M	
	D0106 AHU-4 Condeser Unit		3M			3M			3M			12M	
	D0130 Sound Booth		3M			3M			3M			12M	
	E0141 AHU-1 FORESTRY BLDG		3M			3M			3M			12M	
	E0142 AHU-2 FORESTRY BLDG		3M			3M			3M			12M	

WORK SCHEDULE - MECHANICAL SYSTEMS AND CONTROLS SERVICE/MAINTENANCE CONTRACT APPENDIX "G"

Journeyman HVAC Mech		Apr-26	May-26	Jun-26	Jul-26	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26
Devices	Valves Cooling		X						X				
	Valves Heating		X						X				
	Motorized Dampers		X						X				
	VAV Boxes		X						X				
	Grills Supply, Return		X						X				
	Safeties		X						X				
	Make up Water feeds		X						X				
	Sensors		X						X				
	Expansion Tanks		X						X				
	Thermostats		X						X				
	Humidistats		X						X				
	Temperature gauges		X						X				
	Coil Cleaning					X	X						
	Lab Fume Hood Service	X			X			X			X		
	Lab Fume Hood Verification							X				X	
	Filters		X			X			X				
	Amperage Checks / Record			X									
	Motor Starter / Contacts					X	X						
	Damper Operations				X							X	
	Controlled Devices												
	Condenser pans cleaning											X	
	Relay , Contactors, Switches				X							X	
	Freeze Protection											X	
	Flow switches				X								
	Presure / electric switches											X	
	Control Valves				X							X	
	Cooling Towers				X							X	
	Controllers	X	X	X	X	X	X	X	X	X	X	X	X
	Thermostats				X							X	
	Sequence operations				X							X	
	UPS				X							X	
	Gauges				X							X	
	Sensors				X							X	
	Computer, All accessories				X							X	
	Programing				X							X	
	Communication Buss	X	X	X	X	X	X	X	X	X	X	X	X

APPENDIX H

MAINTENANCE SERVICE REPORT	
HVAC CONTROL SYSTEM(S)	
<i>Complete and submit work order based on this sheet on completion of inspection</i>	
<i>Air Compressors</i>	<i>Comments</i>
.1 Operation Cycle	
.2 Electric Motor	
.3 Amperage	
.4 Bearings	
.5 Valves	
.6 Air Relief Valve	
.7 Oil in Line	
.8 Moisture in Line	
.9 Outlet Pressure	(PSIG) (kPa Gauge)
.10 Alternator Settings	
<i>Air Dryer, Filter & PRV</i>	<i>Comments</i>
.1 Air Dryer Operation	
.2 Auto Drain Operation	
.3 PRV Settings	
.4 Time Clock Settings	
<i>Motorized Dampers</i>	<i>Comments</i>
.1 Operation	
<i>Controls Motors & Operators</i>	<i>Comments</i>
.1 Elec. Motor Operations	
.2 Operating Range	

.3	Pneumatic Operator Opr.	
.4	Operating Range	
.5	Position Relay Opr.	
.6	Starting Pressure	
.7	Operating Range	
.8	Min. Position Setting	
<i>Controlled Devices</i>		<i>Comments</i>
.1	Operation	
.2	Operating Range	
<i>Safety Devices</i>		<i>Comments</i>
.1	Operation	
.2	Operating Point	
.3	Operating Range	
.4	Min. Position Setting	
.5	Max. Position Setting	
<i>PE & EP Switching</i>		<i>Comments</i>
.1	Operation	
.2	Operating Point	
<i>Control Valves</i>		<i>Comments</i>
.1	Operation	
.2	Operating Range	
.3	Position Relay Starting Point	
<i>Sensors</i>		<i>Comments</i>
.1	Sensor Reading	
.2	Calibration Reading	

<i>Controllers</i>	<i>Comments</i>
.1 Operation	
.2 Set Point	
.3 Throttling Range	
.4 Reset Schedule	
.5 Sequencing	
<i>Thermostats</i>	<i>Comments</i>
.1 Operation	
.2 Day Set Point	
.3 Night Set Point	
.4 Sensor Deviation	
.5 Throttling Range	
<i>Humidistats</i>	<i>Comments</i>
.1 Operation	
.2 Set Point	
.3 Throttling Range	
.4 Sensor Deviation	
<i>Gauges & Indicators</i>	<i>Comments</i>
.1 Operation	
.2 Deviation	
<i>Accessories</i>	<i>Comments</i>
.1 Operation	
.2 Setting	
<i>Operating and Maintenance Manuals</i>	<i>Comments</i>
.1 Update Manuals (If Applicable)	

APPENDIX J

Memorial University of Newfoundland

**GRENFELL CAMPUS / BBARS
Corner Brook, NL / Norris Point, NL**

Mechanical Systems and Controls Listing

Effective August 1, 2025

Issued to form part of and be included in tender documents for Mechanical Systems and Controls Maintenance/Service Contract for all Grenfell Campus Buildings.

1. General – Site Visit

It is **“required”** that bidders visit site and become totally familiar with the complexity, condition, function and location of all systems equipment included under this service contract prior to submission of tenders. A site visit can be arranged by contacting the Campus Representative listed.

2. General – Systems

This service contract shall cover all environmental mechanical systems contained in, and related to, the Campus Buildings as listed. See **Appendix G** for a general list of equipment covered under this service contract. Other components of these system(s), located at this College, not listed in **Appendix G**, shall still be covered under this contract. All system vales, actuators, filters, pumps, compressors, software upgrades are some examples.

3. List of Equipment – Appendix G

4. Grenfell Campus Facilities Management Department have set up a Preventive Maintenance Program (PMP) that uses a numbering system to identify equipment and systems. A “FILE CODE” has been assigned to all equipment and systems for the scheduling of service and maintaining records. Each Building on campus has been assigned a letter as listed:

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Alphabetical lettering for “FILE CODES”

A	Arts and Science
B	A&S Residence
C	Library
D	Fine Arts
E	Forestry
F	Residence #1
G	Residence #2
H	Residence #3
I	Residence #4
J	Residence #5
K	Residence #6
M	Residence #7
N	Residence #8
O	Outside Services
P	Portable equipment
Q	New Residence Complex
R	Rec Plex
S	Forestry Chemical Building
T	Green House Building
U	Not assigned
V	Vehicles
W	Environment (BERI) Lab Extension
X	BBARS – Public Aquarium / Academic Building
Y	BBARS – Residence Building
Z	Not Assigned

The University has fourteen (14) buildings / areas that shall be covered under the PMP with options to add others in the future. The New Academic Building shall be listed under the A&S; known as A&S Extension.

1. Arts And Science (A&S)
2. A&S Residence
3. Library
4. Fine Arts
5. Forestry
6. Residence #1
7. Residence #2
8. Residence # 3
9. Residence # 4
10. Residence # 5
11. Residence # 6
12. Residence # 7
13. Residence # 8

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14. Residence Complex
15. Rec Plex
16. Chemical Storage Building
17. Green House Building
18. Environment (BERI) Lab Extension

The Bonne Bay Aquarium & Research Station (BBARS) has two (2) buildings / areas joined by an overhead walkway.

1. Public Aquarium/Academic Building
 2. Residence Building
-
5. As a part of the HVAC Service Contract the vendor shall use the assigned “File Code” in scheduling and reporting of service on individual equipment and Systems. All systems shall be labeled with the PM “FILE CODE” identification.
 6. The attached list shows all major systems and equipment but do not capture all items related these systems/ equipment such as thermostats, vav boxes, valves, dampers and other components related to the operations of the systems/ equipment. All these related items shall be covered under this Tender.
-
7. **BBARS - LIST OF SYSTEMS / EQUIPMENT**

AQUARIUM/ACADEMIC BUILDING

1. Exhaust fans: 5 (3 – 1st floor; 2 – 2nd floor)
2. Heat pumps: 11 (4 – 1st floor; 7 – 2nd floor)
3. Heat recovery units: 2 (1 – 1st floor; 1 – 2nd floor)
4. Pumps: 2 (1st floor mechanical room)
5. Duct heaters: 11 (4 – 1st floor; 7 – 2nd floor)
6. Space thermostats: 11 (4 – 1st floor; 7 – 2nd floor)
7. Control Valves: 2 (1st floor mechanical room heat exchangers)

RESIDENCE BUILDING

1. Exhaust fans: 17 (8 – 1st floor; 9 – 2nd floor)

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8. GRENFELL - LIST OF SYSTEMS / EQUIPMENT

FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE
C0100	LIBRARY	Chiller – Trane – 70 Ton Model No: RTUA0705YA01R2DOVDFN Serial No: U95D6698	Basement Room LC105	
		Two (2) Screw Compressors – 35 Ton each Model No: CHHN 035HKDN043A 600 Volt – 3 Phase	Basement Room LC105	
C0101				
C0102		AHV # 1 – Trane Model No: 028 Serial No: CCC – 619 Filters – Pre Filters 24x24x2 (9) Filters – Bag Filters 24x24x21 (9) Supply Fan Belts = (2) – B111 Motor 20 hp – 575 Volt – 3 Phase – 1765 rpm Duct Heater – Make = Thermolec – 54 kw Model FC-BPTD Serial No: 57345-02	Basement Room LC105	
FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE
C0103	LIBRARY	Return Fan F-1 Belts = (1) – B82 Motor - 7.5 hp – 575 Volt – 3 Phase	Basement Room LC105 Serves AHU 1 Return Fan F-1	
C0104		Humidifier #1 – Carnes Model No: HCGE Serial No: 265381-1 575 Bolt – 3 Phase	Basement Room LC105	
C0105		Humidifier #2 – Carnes Model No: HCGE Serial No: 265381-2 575 Bolt – 3 Phase	Basement Room LC105	
C0106		AHV # 2 – Trane Model No: 008	Basement Room LC105	

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		Serial No: ECC - 620 Filters - Pre Filters 24x24x2 (2) Filters - Bag Filters 24x24x21 (2) Supply Fan Belts = (1) - B62 Motor - 5 hp - 575 Volt - 3 Phase - 1760 rpm Duct Heater - Make = Thermolec - 80 kw Model FC - BPTD Serial No: 57345-01		
C0107		Return Fan F-2 Belts = (1) - A54 Motor 1.5 hp - 575 Bolt - 3 Phase - 1740 rpm	Basement Room LC105 Serves AHU 2 Return Fan F-2	
C0108		Exhaust Fan F-7 Model # 150 SN: 22283 E.H Price Greenheck	Basement Room LC105 Serves Elevator Machime room 103	
FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE
C0109	LIBRARY	Exhaust Fan F-5 Motor 120VAC Pen Zephyr	Basement Room LC104 Electrical room exhaust	
C0110		Chilled Water Pumps #2 Armstrong Model No: 2x2x8 4380 Serial No: 32462 Motors - 3 hp - 575 Volt - 3 Phase - 1800 rpm Frame = 182 JMV	Basement Room LC105	
C0111		Chilled Water Pumps #1 Armstrong Model No: 2x2x8 4380 Serial No: 32463	Basement Room LC105	

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		Motors - 3 hp - 575 Volt - 3 Phase - 1800 rpm Frame = 182 JMV		
C0112		Chiller Condensers (Roof Mounted) - Trane Model No: RTC A0805 Motors on Condenser 575 Volt - 3 Phase - 1 kw Note: (1) one fan on each circuit controlled by fan inverter total of (2) two inverter controlled motors	Roof Note name plate not readable on unit.	
C0113		Exhaust Fan F6 GreenHeck Model No: SE1-14-440-B8 Motor: 1/6 hp - 115 Volt - 1 Phase - 1140 rpm	Basement Room LC105 Serves Mechanical Room	
FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE
C0114	LIBRARY	Exhaust Fans F-3 (Roof Mounted) - GreenHeck Model No: G-100- A Serial 95C03234 Direct Drive - ½ hp - 120 Volt - 1 Phase	Roof Serves general washroom exhaust	
C0115		Exhaust Fan (Roof Mounted) - GreenHeck Model No: (F-4) - G - 90 -G SN# 95C03430 Direct Drive - ½ hp - 120 Volt - 1 Phase	Roof Serves washroom exhaust	
C0116		Hot Water Tank Domestic Model # 1126C-3-18 SN# A926689 Giant	Room 105 Mechanical Room 105	
C0117		Unit Heater	Room 105	

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		Westcan Model:WFA0218C-2	Mechanical Room	
C0118		Unit Heater Westcan Model: WFA0518C-2	Room 104 Mechanical Room	
C0119		Unit Heater Westcan Model:WFA0218C-2	Room 105 Mechanical Room	
FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE
D0100	FINE ARTS	AHU # 1 York Air Conditioner Model: NC090C00C5AAAZ SN# N1G8048348 Filters – Filters – Supply Fan-Belt = Motor 3hp – 575 Volt – 60	Mechanical Room 110 Serves Gallery	
D0101		Humidifier – Pure Model No: EC-15 Serial No: 33728 575 Volt – 3 Phase – 60, 15 kw	Mechanical Room 110	
D0102		Condensor #1 AC Unit – York Model No: YC090C00A5GAA5 575 Volt – 3 Phase - 60	Roof	
D0103		AHU #2	Mechanical	

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		Carrier SN# 3687T02016 Filters – Pre filters 24x24x2 (3) Filters – Bag filters 24x24x21 (3) Supply Fan-belts = (2) – AX34 Motor 5hp – 575 Volt – 3 Phase – 1730 rpm	Room 110 Serves Theatre	
FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE
D0104	FINE ARTS	Compressor #2 AC Unit – Carrier Comp. Model No: 06DE5370BE0100 575 Volt – 3 Phase	Mechanical Room 110 Serves AHU 1	
D0105		AHU #3 – Carrier Model No: 39EH23 Serial No: 3887T02007 Filters – Pre filters 24x24x2 (4) Filters – Pre filters 12x24x2 (4) Filters – Bag filters 24x24x21 (4) Filters – Bag filters 12x24x21 (4) Supply Fan-belts = (4) 3vx500 Danfoss Speed drive – Model No: VLT 6000 Motor 15 hp – 575 Volt – 3 Phase – 1750 rpm Duct Heater – Make = Thermolec – 180 kw Model No: DGF-AMD Serial No: 11399-2 600 Volt – 3 Phase	Mechanical Room 110 Serves General Ventilation	

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D0106		AHU #4 Condenser Model 39EH23 SN/ 3687T020113 Condenser Coil Air Handler for Compressors D0102& D0104 Fan-belts = (2) - A59 Motor 7.5 hp - 575 Volt 3 Phase - 1745 rpm	Mechanical Room 110	
FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE
D0107	FINE ARTS	Exhaust Fan #1 Belt (1) A64 Motor 3 hp - 575 Volt 3 phase - 1740 rpm	Mechanical Room 110 Theatre Return	
D0108		Exhaust Fan #2 New York Blower 50-41752 Belt - (1) - A63 Motor 5 hp - 575 Volt 3 Phase - 1720 rpm	Mechanical Room 110 Photo Studio Exhaust	
D0109		Exhaust Fan #3 Belt - (1) - A38 Motor 3 hp - 575 Volt 3 Phase - 1725 rpm	Mechanical Room 110 Washroom General Exhaust	
D0110				
D0111		Heat Recovery Unit #1 Filters (Washable) Fan-belts = (2) - B68 Motor 7.5 hp - 575 Volt- 3 Phase - 1725 rpm (1) Heat Wheel with a belt drive through a gear box	Roof Serves Studio 2&3	
D0112		Heat Recovery Unit #2 Filters (Washable) Fan-belts = (2) - B68 Motor ¼ hp - 575 Volt - 3	Roof Serves Studio 1&4	

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		Phase - 1725 rpm (1) Heat Wheel with a belt drive through a gear box		
FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE
D0113	FINE ARTS	Exhaust fan #4 Belt (1) - A25 Motor 1/6 hp - 115 Volt- 1 Phase	Roof	
D0114		Exhaust fan #5 Belt (1) - A25 Motor 1/6 hp - 115 Volt 1 Phase	Roof	
D0115		Exhaust fan #6 Belt (1) - A23 Motor 1 hp - 115/230 Volt 1 Phase - 1725 rpm	Roof	
D0116		Exhaust fan # 7 Belt (1) - A25 Motor 1/3 hp 115 volt 1 Phase	Roof	
D0117		Exhaust fan # 8 Belt (1) - A23 Motor 1/3 hp - 115 Volt 1 Phase	Roof	
D0118		Exhaust fan # 9 Belt (1) - A25 Motor ¾ hp - 115/230 Volt 1 Phase - 1750 rpm	Roof Serves Carpenter Shop	
D0119		Exhaust fan # 10 Belt (1) - A25 Motor ¾ hp - 115/230 Volt 1 Phase - 1750 rpm	Roof	
D0120		Exhaust fan # 11 Belt (1) - A25 Motor 1/6 hp - 115 Volt- 1 Phase	Roof	

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FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE
D0121	FINE ARTS	Exhaust fan # 12 Belt (1) - A25 Motor 1/6 hp - 115 Volt 1 Phase	Roof	
D0122		Exhaust fan # 13 Belt (1) - A25 Motor ½ hp - 115 volt 1 phase	Roof Serves Rooms 419 & 419A	
D0123		Exhaust fan # 14 Belt (1) - A26 Motor ½ hp - 115 Volt 1 Phase	Roof	
D0124		Exhaust fan # 15 Belt (1) - A28 Motor 1 ½ hp - 115/230 Volt - 1 Phase	Roof	
D0125		Exhaust fan # 16 Belt (1) - A25 Motor 1/6 hp - 115 Volt 1 Phase	Roof	
D0126		Exhaust fan # 17 Belt (1) - A25 Motor 1/6 hp - 115 Volt 1 Phase	Roof	
D0127		Exhaust fan # 18 Belt (1) - A25 Motor 1/6 hp - 115 volt 1 phase	Carpenter Shop	
D0128		In-line Supply Air Fan (Welding shop supply air) Details TBC by contractor	FA 104	
D0129		Spare		
FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE

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D0130	FINE ARTS	Trane Heat Pump Model No: TSC036G3REA1FMV Serial No: 244111052L Filters – 208/230 Volt – 3 Phase - 60	Roof Serves sound booth Theatre	
D0131		A/C Unit – Heatwave (Stand Alone) – 2 ton Model No: WPC24 Serial No: 240-1426C Filter – Washable Unit – Direct Drive – Water Cooled 240 Volt – 1 Phase	Serves general office Room 425	
D0132		Supply fan Belt (1) – A40 Motor 1/3 hp – 115 Volt 1 Phase	Roof Serves Photo Lab Room 323	
D0133		Heating Coil for D0132	Ceiling Room 425	
D0134		Sump Pump Elevator Machine room 118	Machine Room 118	
D0135		Exhaust Fan Window	Room 104	
D0136		Exhaust Fan Window	Room 104	
D0137		Exhaust Fan Window	Room 103	
D138		Exhaust Fan Window	Room 103	
D139		AHU Lennox Model # KCA102S4BN3J Serial # 5617G07923	FA Roof Serves FA 223/224	
D140		Fan F-19 Carpentry shop supply	FA 135 Carpentry shop	

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		Greenheck model# BDF-90-7-7R-X		
D141		Fan F-20 Carpentry shop exhaust Details from RS	FA 135 Carpentry shop	
D142		Fan F-21 Strobic fan for fumehoods Greenheck model# V K H 16 A50X	FA Roof	
D143		Fan F-22 Strobic fan for paint booth Greenheck model# V K H 13 A45X	FA Roof	
D144		Fan F-23 In-line booster fan Print shop exhaust arms	FA 202 ceiling space	
D145		Electric heating coil For carpentry supply air Model# DF C100H, 600V 45 kW	FA 135 Carpentry shop	
D146		Fume Hood #1 Detail from RS	FA 203	
D147		Fume Hood #2 Detail from RS	FA 203	
D148		Fume Hood #3 Detail from RS	FA 203	
D149		Fume Hood #4 Detail from RS	FA 203	
FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE
D0138	FINE ARTS	Exhaust Fan Window	Room 103	
A0099	Arts & Science	AC Evaporator Kerr Model:B-C50704 208v/1ph/60hz Cap 21600/24000btu/h R410A 7 oz SN: C1335310311504130011	3 rd Floor Data Room Room AS362 Condenser A0117	
A0100 City of Corner		Heat Pump - Lennox Model No: KHA240S4M - PKGHP / 20TON / BTO	Roof Serves GYM	

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Brook		Serial No: TBD Filters - 24x24x2 MERV 8 (6) Fan-belts - (#/type TBD) Motor 10 hp - 600 Volt - 3 Phase -		
A0101		Carrier Model: 50P3B035110MKM9HJC SN: 3011U32357 *** Additional info to be determined / recorded by service contractor (filters, belts, motor info, etc.)	Roof Serves 1st floor office and general supply	
A0102		Carrier Model: 50P3C0551000004MWNS SN: 2810U18195	Roof Serves Labs	
FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE
A0103				
A0104		Exhaust fan - Residence - F-3 Motors - ½ hp - 115 Volt - 1 Phase Belt - (1) per fan, size range from A24 - A31	Roof Residence Serves Skylight	
A0105		Exhaust fan- Residence F-4 Model: CUBE-10-4-X Motors - ½ hp - 115 Volt - 1 Phase Belt - (1) per fan, size range from A24 - A31	Roof Residence Serves GCSU washrooms	
A0106		Exhaust fan - Residence - F-9 Motors - ½ hp - 115 Volt -	Roof Residence Serves Bar 1st level Exhaust	

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		1 Phase Belt – (1) per fan, size range from A24 – A31		
FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE
A0107	Arts & Science	HRV Venmar Model: P-2-04-E-PP-EC7 SN: 00401305-C03344 Manufacture date 2010 600V/3PH/60hz	Roof Residence East Wing Serves Residence East Wing	
A0108		Exhaust fan – Kitchen Hood EF-1 Greenheck model# CUBE- 200-15 Motor –1.5 hp – 208 Volt – 1 Phase, 1725 rpm *Belt – (#/type TBD) *Motor Frame TBD	Roof Serves the Grove hood	
A0109		Exhaust fan – Kitchen Hood EF-2 Greenheck model# CUBE- 200-20 Motor –2 hp – 208 Volt – 1 Phase, 1725 rpm *Belt – (#/type TBD) *Motor Frame TBD	Roof Serves the Grove hood	
A0110		Supply fan – Kitchen make- up air unit SF-1 Inline fan unit Motors –3 hp – 600 Volt, 3 Phase, 1725 rpm Filters – 1295mm pleated, MERV 8 *Belt – (#/type TBD) *Motor Frame TBD	AS 102B – Elec/mech room	
A0111		Exhaust fan EF-25 General Motor – ¾ hp – 575 Bolt 3 Phase Belt – (1) – A30	Roof Serves electrical room	

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FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE
A0112	Arts & Science	Exhaust Fan F-7 Chelsea Model: RDB122 Motor: Franklin Model 141132411Frame: FR56 ½ HP 1 ph 115V	Roof Serves staff lounge	
A0113		HRV Venmar Model: P-2-04-E-E-PP- EC75-X-X-C SN: 00547968-C04243 600V/3ph/60hz	Roof Serves West wing Residence	
A0114		Exhaust Fan F-20 Motors - ½ hp - 575 Volt - 3 Phase Belt - (1) per fan - size range from A25 - A30	Roof Serves washroom exhaust	
A0115		Exhaust Fan Motors - ½ hp - 575 Volt - 3 Phase Belt - (1) per fan - size range from A25 - A30	Roof General Exhaust	
A0116		Exhaust Fan GE Model : 5KCP39HG Motors - 1/4 hp 115V/1ph/60hz Belt - (1) per fan - size range from A25 - A30	Roof Serves Research Room Room AS344	
A0117		Condenser Kerr Model: AC 50704 208V/1ph/60hz	Roof Serves A0099 Data Room AS362	

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FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE
A0118	Arts & Science	Exhaust fan Motors - ½ hp - 575 Bolt - 3 Phase Belt - (1) per fan - 4L 270	Roof Serves Fume Hood Room AS310	
A0119		Exhaust fan TriStack Model No: BS-002 Motor - 3 hp - 208 volt - 3 phase Belt - (1) per fan - 4L270	Roof Serves Environmental Analytical Lab Room AS227 3 hoods Rooms: AS227 (2) AS227B (1)	
A0120		AHV Unit - 20 ton - Keep Rite Products Inc. Filters - 16x20xT.A. - (4) Supply fan - belt - (1) B68 Motor 5 hp - 575 Bolt, 3 Phase NOTE: Heater in unit has S.C.R. Control Heat KW = 35 Trane Condenser Outside mech. Room AS102B Model: TTA1204WCAAA03BS0 SN: 24291128YA	1 st Floor AS102 Serves Cafeteria Area	
A0121		AHU Unit - Trane Model # TSJ120AWS0N03PM Serial # 243410310L 575V - 3PH - 60	Roof Serves GCSU	
A0122				
A0123		A/C Unit - Carrier - 10 ton NOTE: Unit Chu Economizer, Power Exhaust, Electric Heat and THS-50-5-SCR Model No: 50PGCM12-A-10-BB Centurian Serial No: 3208G50013	Serves Computer Science Resource Center French Lab	

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	Arts & Science	Filters Filters Supply fan – Belt – (1) AX62 Motor – General Electric – 575 Volt – 3 Phase – 2.8 Amp – 1740 rpm – Frame J6Y Terminal Units – Price – Total – (7) Model: SDV5 – size 7 – (2) – size 8 – (5) Duct Heaters – Neptronic – (7) Model: DFCIOOH – 600 Volt – 3 Phase		
A0124		** Not in use **		
A0125		** Not in use **		
A0126		** Not in use **		
A0127		** Not in use **		
A0128		** Not in use **		
A0129		** Not in use **		
A0130		** Not in use **		
A0131		** Not in use **		
A0132		** Not in use **		
A0133		** Not in use **		
A0134		** Not in use **		
A0135		** Not in use **		
A0136		** Not in use **		
A0137		** Not in use **		
A0138		** Not in use **		
A0139		** Not in use **		
		** Not in use **		
A0140		** Not in use **		
A0141		** Not in use **		
A0142		** Not in use **		
A0143		** Not in use **		
A0144		** Not in use **		
A0145		** Not in use **		
A0146		** Not in use **		
A0147		** Not in use **		

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		** Not in use **		
A0148		** Not in use **		
A0149		** Not in use **		
A0150		** Not in use **		
A0151		** Not in use **		
A0152		** Not in use **		
A0153		** Not in use **		
A0154		** Not in use **		
A0155		** Not in use **		
A0156		** Not in use **		
A0157		** Not in use **		
A0158		** Not in use **		
A0159		** Not in use **		
FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE
A0160		** Not in use **		
A0161		** Not in use **		
A0162		** Not in use **		
A0163		** Not in use **		
A0164		** Not in use **		
A0165		Exhaust Fan Carnes Model: EWBA19R5 SN: V736121-1 208V 1ph 60hz	Serves Electrical Room 102B	
FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE
A0166	Arts & Science	HRV Heat Recovery Ventilator Venmar Light Commercial Model 12L-A SN: 6C02 991000009 115V 60hz 1PH MCA 14 amps MOP 20 amps Manufacture: Conservation Energy Systems	Student Services Serves 2 & 3 floor. Located in Room 232B	
A0167		A/C 5 Ton Comfort Air Alton Equipment Model No: WPC 60-5	2 nd Floor Serves Data Room AS204	

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		Serial No: 0803 1A60 BRE E - 11373 Power Supply: 575 Volt – 3 Phase – 12 Amps		
A0168		Exhaust Fan F-14 Fan specs TBD by contractor	Roof Serves Washroom	
A0169 City of Corner Brook		HRV Venmar Model HRV2000e DGA2DG33DNHDBH SN: TBD 575V 60hz 3PH MCA 4.8 amps MOP 7 amps Belts - TBD by contractor Filters - TBD by contractor	Roof Serves Change Rooms	
A0170		Exhaust Fan F-15 Fan specs TBD by contractor	Roof Serves Washroom	
FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE
A0171	Arts & Science	Exhaust Fan Fan specs TBD by contractor	Roof Service location TBD updated by contractor	
A0172		Exhaust Fan Cranes SN:6708 002 Model: VUDK06J2A1NA14ALC1 115V/1PH/60 HZ 1/8 HP Date: 9/18/96	Roof Serves Fume Hood A0368 Biology Lab Room AS285	
A0173		Exhaust Fan F-25 Fan specs TBD by contractor	Roof Service location TBD updated by contractor	
A0174		Exhaust Fan F-13 Fan specs TBD by	Roof Service location	

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		contractor	TBD updated by contractor	
A0175		Strobic Fan Tri-Stack, Model BS002 SN: T500, 3 HP Frame Style 182T 3PH/208V/60hz 1755 RPM Direct Drive	Roof Serves Chemistry	
A0176		Strobic Fan Tri-Stack, Model BS00218 SN: 10318-01-2 3 HP Frame Style 182T 3PH/208V/60hz 1760 RPM Direct Drive	Roof Serves Chemistry	
A0177		Strobic Fan Tri-Stack Model BS00218 SN: 10318-01-2 3 HP Frame Style 182T 3PH/208V/60hz 1760 RPM Direct Drive	Roof Serves Chemistry	
FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE
A0178 City of Corner Brook	Arts & Science	AHU Lennox A/C 5 TON Model: LCH060S4TC1J SN: 5611F05648	Roof Serves Over pool / Mac Lab / FM offices 3 rd Floor	
A0179		Air Conditioner 10 TON Alton Equipment Model: PS12-5 SN: 11061A120 CSA E-1301 Comp: 575V/3PH/60hz Amps 21 / Breaker 30 Fan: 2 HP System Charge 76X20z R410a	2 nd Floor Serves Data Server Room AS204	
A0180		AHU Specs TBD and updated by	1 st Floor Serves Staff	

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		contractor Belts - TDB / updated by contractor Filters - TBD / updated by contractor	Service Areas Located in Room 123	
A0181		AC Unit Carrier Model# 50A3-020MN12AVC Serial # 2817V45667 Specs TBD and updated by Honeywell	Roof- serves Admin and Finance 2 nd /3 rd floors and classrooms	
FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE
A0368	Arts & Science	Fume Hood #1 Norlab Model 1011841-T139 125v/15A/60hz/1ph TH11841-T139	2 nd Floor Biology Room AS285	
A0369		Fume Hood #1 Specs TBD and updated by contractor	2 nd Floor Chemistry Room AS206	
A0370		Fume Hood #2 Specs TBD and updated by contractor	2 nd Floor Chemistry Room AS206	
A0371		Fume Hood #3 Specs TBD and updated by contractor	2 nd Floor Chemistry Room AS206	

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A0372		Fume Hood #4 Specs TBD and updated by contractor	2nd Floor Chemistry Room AS206	
A0373		Fume Hood #5 Specs TBD and updated by contractor	2nd Floor Chemistry Room AS206	
A0374		Fume Hood #6 Specs TBD and updated by contractor	2nd Floor Chemistry Room AS206	
A0375		Fume Hood #7 Specs TBD and updated by contractor	2nd Floor Chemistry Room AS249	
FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE
A0376	Arts & Science	Fume Hood #1 Specs TBD and updated by contractor	2nd Floor Analytical Lab Room AS227	
A0377		Fume Hood #2 Specs TBD and updated by contractor	2nd Floor Analytical Lab Room AS227	
A0378		Fume Hood #3 Specs TBD and updated by contractor	2nd Floor Analytical Lab Room AS227B	
A0379	Arts & Science Ext	Exhaust Fan EF-8 Specs TBD and updated by contractor	A&S Extension Roof Serves Chemical storage Room 3007	

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A0380		AHU NO:1 MaQuay Model No:CAH084GBDM SERIAL NO:FB00110301926 Supply fan: 75 HP 575 volts 3 ph 60 hz Return fan: 25 HP 575 volts 3 ph 60 hz.	A&S Extension 4 th floor penthouse	
A0381		PUMP P- 8 Heating TACO Model: KV3007-7 Motor: WEG W21CC029A Serial No: 1007093260 Voltage 575/3ph/60hz Vertical in line	A&S Extension 4 th floor penthouse	
A0382		PUMP P- 7 Heating TACO Model: KV3007-7 Motor: WEG W21CC029A Serial No: 1007093262 Voltage 575/3ph/60hz Vertical in line	A&S Extension 4 th floor penthouse	
A0383	Arts & Science Extension	HRV #1 Annexair Model ERP-E-03-FP Exhaust Motor: Baldor Serial F1104064587 HP: 2 575/3 P/60 EF Motor: Baldor Ser: F1104064592 HP: 2 575/3p/60	A&S Extension 3 rd floor roof Serving Washroom Exh. &Make up to AHU#1	
A0384		Humidifier H-1 Model: RTH 80 SER: 0660 Steam output: 84 kg/h Voltage: 208/240 50/60 hz 600v/3 ph Intensity: 61A Max power: 63KW	A&S Extension Room 4001	
A0385		Humidifier H-2	A&S Extension	

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		Model: RTH 80 SER: 0670 Steam output: 84 kg/h Voltage: 208/240 50/60 hz 600v/3 ph Intensity: 61A Max power: 63KW	Room 4001	
A0386		Chiller 150 ton McQuay Water Cooled Chiller Model: WGZ130CW37-ER10 Serial NO: Stnu110400049 4 compressors RLA 49.4 575v/60hz/3ph 210 AMPS Max Fuse 250 AMPS Refrigerant R410A	A&S Extension Room 4001	
FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE
A0387	Arts & Science Extension	Pump P-3 Chilled Water Taco Model: KV4009-8 Motor: WEG W21CC029A SN: 1009839812 575v/3p/60hz ENC:TEFC FR:213JM HP:7.5	A&S Extension Room 4001	
A0388		Pump P-4 Chilled Water Taco Model: KV4009-8 Motor: WEG W21CC029A SN: 1009839805 575v/3p/60hz ENC:TEFC FR:213JM HP:7.5	A&S Extension Room 4001	
A0389		Pump P-5 Condenser Water Taco Model: KV3007-6 Motor: WEG W21CC029A SN: 1007093261	A&S Extension Room 4001	

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		575v/3p/60hz ENC:TEFC FR:213JM HP:5		
A0390		Pump P-6 Condenser Water Taco Model: KV3007-6 Motor: WEG W21CC029A SN: 1007093259 575v/3p/60hz ENC:TEFC FR:213JM HP:5	A&S Extension Room 4001	
A0391		Heat Exchanger #1 Condenser Water TACO SN: ENA-120/50110 Model: TPG1007T BYF-150 Year built: 2011	A&S Extension Room 4001	
A0392	Arts & Science Extension	Pump P-1 Cooling Tower Model KV6009-9 Motor Model: WEG W21CC029A SN: 1009688003 575v/3p/60hz ENC:TEFC FR:213JM HP:5	A&S Extension Room 4001	
A0393		Pump P-2 Cooling Tower Model KV6009-9 Motor Model: WEG W21CC029A SN: 1009688999 575v/3p/60hz ENC:TEFC FR:213JM HP:5	A&S Extension Room 4001	
A0394		Glycol Make Up Package Cooling Tower Expansion Tank GMP-2102	A&S Extension Room 4001	

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A0395		Cooling Tower #1 EVAPCO Model: LRWB 8-3L9-T SN: 10-403911 Coil test pressure 400 psig Pump/ Motor 3095K157 0912990 Motor Emerson Cat. UJ2PGM9-P Model 2008226-100 HP-2 575V/3ph/60hz Blower motor Baldor 25 HP 575V/3ph/60hz Belts 3-B148	A&S Extension Room 4001	
FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE
A0396	Arts & Science Extension	AHU-2 McQuay SN:FB0U110301990 Model: CAH026GDAM Fan Motor: Baldor Cat. #ECP233T-5 HP: 15 Amps 14.5 Frame 254T SN: 21102240166 Fan: 99725010DRV01V1 Drive Belt: (2) 5VX450 Filters: Main: (7) 20x24x4 Varicel II 335-060-000 MERV II & (2) 20X20X4 Varicel II Pre filters: 20x24x1½ PerfectPleat	A&S Extension Mechanical Room 1000	
A0397		Exhaust Fan EF-7 Specs TBD and updated by contractor Not in Balance report	A&S Extension Mechanical Room 1001 Elevator Machine Room Exhaust	
A0398		Exhaust Fan EF-6	A&S Extension	

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		Centri-Master Model: XB200 SN: 10M1558-2 Motor Marathon Model: JVG561T702 575V/3ph/60hz HP: ¾ Frame 56T FLA 1.1 Belt (1) A55	Electrical Room 4001A	
FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE
A0399	Arts & Science Extension	Exhaust Fan EF-3 Centri-Master Model: XB200 SN: 10M1558-8 Motor Marathon Model: JVG561T702 575V/3ph/60hz HP: ¾ Frame 56T FLA 1.1 Belt (1) A55	A&S Extension Mechanical Room 4001 Refrigeration Evacuation	
A0400		Exhaust Fan EF-4 Centri-Master Model: XB200 SN: 10M1558-6 Motor Marathon Model: JVG561T702 575V/3ph/60hz HP: ¾ Frame 56T FLA 1.1 Belt (1) A55	A&S Extension Mechanical Room 4001 Penthouse Exhaust	
A0401		Exhaust Fan EF-5 Centri-Master Model: XB200 SN: 10M1558-1 Motor	A&S Extension Mechanical Room 4001 Observatory Exhaust	

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		Marathon Model: JVG561T702 575V/3ph/60hz HP: 1.5 Frame 145T FLA 1.7 Belt (1) A55	Note: EF5 works with Intake Damper on 1st level Vestibule 2V03	
A0402		Exhaust Fan EF-8 AMEC ModelPV075 E4 HP: ¼ 115v/1ph/60hz 2 speed RPM 1750/1140 SN: 10M1558-6 RPM: 851 CFM 106 in:0.249	A&S Extension Roof serves Chemical Storage Room 3007	
A0403	Arts & Science	Exhaust Fan EF-9 AMEC Model: PV075 E4 HP: ¼ 115v/1ph/60hz 2 speed RPM 1750/1140 SN: 10M1558-6 RPM: 851 CFM 106 in:0.249	A&S New electrical room 113 exhaust outdoor wall mount. Not in balance report	
A0404	Arts & Science Extension	Exhaust Fan EF-1 Strobic Air Model: TS3L200B12 SN: 10125-1 FRAME:284T Voltage 575v/3ph/60hz HP: 20	A&S Extension Roof serves Fume Hoods	
A0405		Exhaust Fan EF-2 Strobic Air Model: TS3L200B12 SN: 10125-2 FRAME:284T Voltage 575v/3ph/60hz HP: 20	A&S Extension Roof serves Fume Hoods	
A0406		Fume Hood FH-1 Specs TBD and updated by contractor	A&S Extension Herbarium Room 2010	
A0407		Fume Hood FH-2	A&S Extension	

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		Specs TBD and updated by contractor	Tissue Culture Room 3033	
A0408		Fume Hood FH-3 Specs TBD and updated by contractor	A&S Extension Biology Lab Room 3032	
FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE
A0409	Arts & Science Extension	Fume Hood FH-4 Specs TBD and updated by contractor	A&S Extension Preparation 3012a	
A0410		Fume Hood FH-5 Specs TBD and updated by contractor	A&S Extension Earth Science 3017	
A0411		Fume Hood FH-6 Specs TBD and updated by contractor	A&S Extension Earth Science 3017	
A0412		Fume Hood FH-7 Specs TBD and updated by contractor	A&S Extension Wet Lab 3026	
A0413		Fume Hood FH-8 Specs TBD and updated by contractor	A&S Extension Wet / Lab 3029	
A0414		Fume Hood FH-9 Specs TBD and updated by contractor	A&S Extension Chemistry Lab 3012	
A0415		Fume Hood FH-10 Specs TBD and updated by contractor	A&S Extension Chemistry Lab 3012	
A0416		Fume Hood FH-11 Specs TBD and updated by contractor	A&S Extension Chemistry Lab 3012	
A0417		Fume Hood FH-12	A&S Extension	

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		Specs TBD and updated by contractor	Chemistry Lab 3012	
A0418		Fume Hood FH-13 Specs TBD and updated by contractor	A&S Extension Chemistry Lab 3012	
FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE
A0419	Arts & Science Extension	Fume Hood FH-14 Specs TBD and updated by contractor	A&S Extension Chemistry Lab 3012	
A0420		Fume Hood FH-15 Specs TBD and updated by contractor	A&S Extension Chemistry Lab 3012	
A0421		Fume Hood FH-16 Specs TBD and updated by contractor	A&S Extension Chemistry Lab 3012	
A0422		Fume Hood FH-17 Specs TBD and updated by contractor	A&S Extension Chemistry Lab 3012	
A0423		Fume Hood FH-18 Specs TBD and updated by contractor	A&S Extension Chemistry Lab 3012	
A0424		Fume Hood FH-19 Specs TBD and updated by contractor	A&S Extension Chemistry Lab 3012	
A0425		Heating System	A&S Extension Radiator Valves Rad Actuators Pumps Control Valves CV Actuators Sensors Chemical MU	
A0426		Chilled Water Loop	Pumps Control Valves	

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			CV Actuators Sensors Chemical MU	
FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE
A0427	Arts & Extension Science	Boiler #1 Riverside Hyronics Reem Electric Package Model: 248EWB 15A-E SN: 0511132044 PN: 206824-1 Control Circuit: 115V/ PH 1/ 60hz/ 2 amps Main Circuit: Amps 240 / I circuit/ volts 575/ 3ph/60hz/ amps 238	A&S Extension Mechanical Room 4001	
A0428		Boiler #2 Riverside Hyronics Reem Electric Package Model: 248EWB 15A-E SN: 0511132045 PN: 206824-1 Control Circuit: 115V/ PH 1/ 60hz/ 2 amps Main Circuit: Amps 240 / I circuit/ volts 575/ 3ph/60hz/ amps 238	A&S Extension Mechanical Room 4001	
A0429		Chemical Treatment System (Pot feeder chemical injection system) System info TBD / updated on-site by contractor	A&S Extension Mechanical Room 1004	

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FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE
E0100	Forest Centre	Water Source Heat Pumps - 7.5 ton Model: W-90-HAC-5S-CC-00 SN: TBD / updated by contractor Spec info : TBD / updated by contractor	Room FC1004	
E0101		Water Source Heat Pumps - 7.5 ton Model: W-90-HAC-5S-CC-00 SN: TBD / updated by contractor Spec info : TBD / updated by contractor	Room FC1004	
E0102		Water Source Heat Pumps - 7.5 ton Model: W-90-HAC-5S-CC-00 SN: TBD / updated by contractor Spec info : TBD / updated by contractor	Room FC1004	
E0104		Water Source Heat Pumps - 7.5 ton Model: W-90-HAC-5S-CC-00 SN: TBD / updated by contractor Spec info : TBD / updated by contractor	Room FC1004	
E0105		Water Source Heat Pumps - 7.5 ton Model: W-90-HAC-5S-CC-00 SN: TBD / updated by contractor Spec info : TBD / updated by contractor	Room FC1004	

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FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE
E0106	Forest Centre	Water Source Heat Pumps - 7.5 ton Model: W-90-HAC-5S-CC-00 SN: TBD / updated by contractor Spec info : TBD / updated by contractor	Room FC1004	
E0107		Water Source Heat Pumps - 7.5 ton Model: W-90-HAC-5S-CC-00 SN: TBD / updated by contractor Spec info : TBD / updated by contractor	Room FC1004	
E0108		Water Source Heat Pumps - 7.5 ton Model: W-90-HAC-5S-CC-00 SN: TBD / updated by contractor Spec info : TBD / updated by contractor	Room FC1004	
E0109		Water Source Heat Pumps - 7.5 ton Model: W-90-HAC-5S-CC-00 SN: TBD / updated by contractor Spec info : TBD / updated by contractor	Room FC1004	
E0110		Water Source Heat Pumps - 7.5 ton Model: W-90-HAC-5S-CC-00 SN: TBD / updated by contractor Spec info : TBD / updated by contractor	Room FC1004	

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FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE
E0111	Forest Centre	Water Source Heat Pumps – 7.5 ton Model: W-90-HAC-5S-CC-00 SN: TBD / updated by contractor Spec info : TBD / updated by contractor	Room FC1004	
E0112		Water Source Heat Pumps – 7.5 ton Model: W-90-HAC-5S-CC-00 SN: TBD / updated by contractor Spec info : TBD / updated by contractor	Room FC1004	
E0113		Water Source Heat Pumps – 7.5 ton Model: W-90-HAC-5S-CC-00 SN: TBD / updated by contractor Spec info : TBD / updated by contractor	Room FC1004	
E0114		Water Source Heat Pumps – 7.5 ton Model: W-90-HAC-5S-CC-00 SN: TBD / updated by contractor Spec info : TBD / updated by contractor	Room FC1004	
E0115		Water Source Heat Pumps – 7.5 ton Model: W-90-HAC-5S-CC-00 SN: TBD / updated by contractor Spec info : TBD / updated by contractor	Room FC1004	
FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE
E0116	Forest	Water Source Heat Pumps	Room FC1004	

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	Centre	- 7.5 ton Model: W-90-HAC-5S-CC-00 SN: TBD / updated by contractor Spec info : TBD / updated by contractor		
E0117		Water Source Pumps P-6 15 hp Bell & Gossett Model: 80-DF 4x11 SN: 700125A Frame-284JP 1725 RPM 575V / 3ph/60hz	Room FC1004	
E0118		Water Source Pumps P-5 15 hp Bell & Gossett Model: 80-DF 4x11 SN: 700125B Frame-284JP 1725 RPM 575V / 3ph/60hz	Room FC1004	
E0119		Heating Pumps P-3 7.5 hp Bell & Gossett Model: G62381 ID: D-G62381-A01M 575V/ 3ph/60hz	Room FC1004	
E0120		Heating Pumps P-4 7.5 hp Bell & Gossett Model G62381-A01M SN: 700124A	Room FC1004	
E0121		Cooling Loop Pump P-11 7.5 hp Bell & Gossett Model G62381-A03M SN: 700126	Room FC1004	
FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE
E0122	Forest Centre	In-Line Circulators Condenser Loop HP-1	Room FC1004	

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		Model: C6T17FC2G SN: NA HP-1 208V/3ph/60hz		
E0123		In-Line Circulators Condenser Loop HP-1 Model: C6T17FC2G SN: 2103983 HP-1 208V/3ph/60hz	Room FC1004	
E0124		In-Line Circulators Condenser Loop HP-1 Model: C6T17FC2G SN: 2103983 HP-1 208V/3ph/60hz	Room FC1004	
E0125		In-Line Circulators Condenser Loop HP-1 Model: C6T17FC2G SN: 2103984 HP-1 208V/3ph/60hz	Room FC1004	
E0126		Heating Boilers #1 Caloritech 252 kw/ 6 stage 600V/3ph/60hz SN: WO61731-01 Model: VWBG18980-01 /VWBG-20-252	Room FC1004	
FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE
E0127	Forest Centre	Heating Boilers #2 Caloritech 252 kw/ 6 stage 600V/3ph/60hz SN: WO61731-02	Room FC1004	

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		Model: VWBG18980-01 /VWBG-20-252		
E0128		Dry Cooler 40HP VSD with Bypass panel MGI Inverter Model# M7600-00450 S/N: R1X334019A Bypass panel MGI MG- DMB32012500305 S/N: ME-M001525M	Rooftop of Environmental Lab Extension and FC1004	
E0129		Condenser #1 Water Cooler (Dry Coolers) – Roof Mount – 80 ton 4- Fans	Roof	
E0130		AHU – Beri Lab Specs TBD by Honeywell	Rooftop of Environmental Lab Extension	
E0131		Exhaust Fan #5 – Penn Ventilator Model: DX278 Motor: 2 hp – 208 Volts – 3 Phase – 60 Hz	Roof Smoke evacuation	
E0132		Exhaust Fan #3 – Penn Ventilator Model: 5X8856 Motor: 5 hp – 600 Volts – 3 Phase – 60 Hz	Roof Fume Hoods	
E0133		Insectarium Exhaust ACME Model: PNV120 Motor: ½ hp – 120 Volts – 1 Phase – 60 Hz	Roof insectarium level 3	
FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE
E0134	Forest Centre	Exhaust Fan #7 – Penn Ventilator Model: DX913 Motor: 1/3 hp – 120 Volts – 1 Phase – 60 Hz	Roof Wash room exhaust	

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E0135		Exhaust Fan	Located in Room FC1000 Serves Capture Hose FC1001	
E0136		Exhaust Fan Exhaust – Carnes Nederman Model: ML111N04AH1 ¾ hp – 208 Volts – 1 Phase – 60 Hz	Located in Room FC1000 serves FC 1000 and FC1000A (electrical room)	
E0137		Exhaust Fan	Electrical Room FC1000A	
E0138		Humidifier #2 NORTEC – NHMC Series 600 V– 3 Phase – 60 Hz	Penthouse Serves AHU #2	
E0139		Humidifier #1 NORTEC – NHMC Series 600 V– 3 Phase – 60 Hz	Penthouse Serves AHU #1	
E0140		Exhaust Fan	Elevator Machine Room FC1006	
E0141		AHU #1 Ene-Round Model: HAC-300 Motor: 15 hp 575 V – 3 Phe – 60 Hz Speeddrive – 15 hp	Penthouse	
FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE
E0142	Forest Centre	AHU #2 Ene-Round Model: HAC-300 Motor: 25 hp – 575 Volts – 3 Phase – 60 Hz Speeddrive Danfoss 25 hp	Penthouse	

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E0143		Dry Cooler Baltimore Air Coil Model#: VFL-096-41 Serial 3: U135113801-01-01 Spec info: TBD / updated by contractor		
E0144		Return Fan #1 – Penn Ventilator Model: SX275BC Motor: 5 hp – 575 Volts – 3 Phase – 60 Hz Speeddrive: 5hp Danfoss	Penthouse	
E0145		Return Fan #2 – Penn Ventilator Model: SX335BC Motor: 7.5 hp Speeddrive: 7.5 hp Danfoss	Penthouse	
E0146		Soils Room Exhaust Model: 529N40FAN Motor: 3 hp – 208 Volts – 3 Phase – 60 Hz	Level 3	
E0147		Pump P-13 10hP, Taco Pump KS2508-8.0-V25 Spec info: TBD / updated by contractor	FC 1004	
FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE
E0148	Forest Centre	Pump P-14 10hP, Taco Pump KS2508-8.0-V25 Spec info: TBD / updated by contractor	FC 1004	
E0149		Exhaust Fan #6 – Penn Ventilator Model: SX95QA	Carpenter shop	

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		Motor: ½ hp – 208 Volts – 3 Phase – 60 Hz		
E0150		Exhaust Fan #7 – Penn Ventilator Model: DX913 Motor: 1/3 hp – 120 Volts – 1 Phase – 60 Hz	Wash room exhaust roof	
E0151		Insectarium Exhaust – ACME Model: PNV120 Motor: ½ hp – 120 Volts – 1 Phase – 60 Hz	Roof insectarium level 3	
E0152		Main DHW Tank – Rheem Ruud Model: EQS120C-36 36000 watts – 600 Volts – 3 Phase – 60 Hz	Mechanical room FC1004	
E0153				
E0154				
E0155		DHW Circulator – Grundfoss Model: UP26-99BF Motor: 1/3 hp – 120 Volts – 1 Phase – 60 Hz	Mechanical room FC1004	
FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE
E0156		Water Filter General Filter GFS4-1/2 Spec info: TBD / updated by contractor	Location to be updated by contractor	
E0157		Water Filter General Filter GFS4-1/2 Spec info: TBD / updated by contractor	Location to be updated by contractor	
E0158		Honeywell DDC Controllers c/w duct / immersion / space sensors, acutators, relays, valves	Various - FC Building	

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FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE
Q0001	Residence complex	HRV #1 Energy Pack P-2-071-PP-EC100-X-X-P Serial #: 00658527-C04915 Belts (4) – BX66 Filters – SF Qty 3 - 24x24x2, Qty 3 – 12x24x2, Qty 3 – 24x24x4 RF Qty 3 – 24x24x2, Qty 3 – 12x24x2	RC Penthouse	
Q0002		HRV #2 Energy Pack P-2-071-PP-EC100-X-X-P Serial #: 00658527-C04916 Belts (4) – BX66 Filters – SF Qty 3 - 24x24x2, Qty 3 – 12x24x2, Qty 3 – 24x24x4 RF Qty 3 – 24x24x2, Qty 3 – 12x24x2	RC Penthouse	
Q0003	Residence complex	Humidifier HUM-1 Neptronics model# SF- SK360M-600-3B Serial #: 12B0700431	RC Penthouse	
Q0004		Humidifier HUM-2 Neptronics model# SF- SK360M-600-3B Serial #: 12B0700432	RC Penthouse	
Q0005		Water Filter Humidifier #1 Aqua-Pure AP101T	RC Penthouse	
Q0006		Water Filter Humidifier #2 Aqua-Pure AP101T	RC Penthouse	
Q0007		Air Conditioner Aitons model# WHC60-5	RC 1 st floor Server Room	

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		Serial #: 05051B60TRE.E-9601		
Q0008		F-1 Exhaust Fan Spec info: TBD / updated by contractor	RC Roof - Location to be updated by contractor	
Q0009		Exhaust fan 1F1 FanTech FKD-10XL Spec info: TBD / updated by contractor	RC 1st floor - Location to be updated by contractor	
Q0010		Hot Water Tank #1 Model #: HUN120-500 500 gallon S/N: C12J00050101 Spec info: TBD / updated by contractor	RC 1st floor – Mech room	
Q0011	Residence complex	Hot Water Tank #2 Model #: HUN120-500 500 gallon S/N: C12J00050102 Spec info: TBD / updated by contractor	RC 1st floor – Mech room	
Q0012		Honeywell DDC Controllers c/w duct / immersion / space sensors, acutators, relays, valves	Various - RC Building	
FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE
W0001	BERI Lab Extension	HRV-1 Model#: HRV1200IEPWXSN S/N: 00579737-010479-	Beri Lab FC-1013	

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		20111024 Spec info: TBD / updated by contractor		
W0002		EF-1 Spec info: TBD / updated by contractor	Beri Lab FC-1013	
W0003		EF-3 Spec info: TBD / updated by contractor	Beri Lab FC-1013	
W0004		Pheonix Supply & Exhaust Valves Spec info: TBD / updated by contractor	Beri Lab FC-1012	
FILE CODE	BUILDING	DESCRIPTION	LOCATION	DATE
W0005	BERI Lab Extension	Pheonix Supply & Exhaust Valves Spec info: TBD / updated by contractor	Beri Lab FC-1013	
W0006		Pheonix Fume Hood Controls Spec info: TBD / updated by contractor	Beri Lab FC-1012	
W0007		Pheonix Fume Hood Controls Spec info: TBD / updated by contractor	Beri Lab FC-1013	
W0008		Strobic Fans #1 Model#: BS-002 S/N: 10724-01-1	FC Building Rooftop	

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		5 hp Spec info: TBD / updated by contractor		
W0009		Strobic Fans #2 Model#: BS-002 S/N: 10724-01-2 5 hp Spec info: TBD / updated by contractor	FC Building Rooftop	
W0010		Strobic Fans #3 Model#: BS-002 S/N: 10724-01-3 5 hp Spec info: TBD / updated by contractor	FC Building Rooftop	
W0011	BERI Lab Extension	Make-up air unit AHU-1 Greenheck Model# MPX-P20-H34-20-DB S/N: 13136950 575/3/60 Spec info: TBD / updated by contractor	Rooftop of BERI Lab Extension	
W0012		Honeywell DDC Controllers c/w duct / immersion / space sensors, acutators, relays, valves	Various – BERI lab extension	
W0013		Phoenix Controls, air valve actuators, space sensors and Bacnet Gateway	Various – BERI lab extension	

NOTE:

It is the responsibility of the mechanical/control maintenance services contractor to keep updated records of the existing “in-service” equipment lists. The above list

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shall also include any/all equipment recently added or modified under the Energy Performance Contract (completed 2019-2020), and includes but not limited to:

1. A&S Annex LG units (4 rooftops) and all associated condenser/evaporator units, controls and systems
2. Fine arts Gallery unit and associated mechanical, controls and systems
3. AS 2006 server room cooling equipment – rooftop/interior units and associated controls and systems

This list shall also be edited to remove from the contract, mechanical units and system associated with the operation of the Grenfell Pool and Gymnasium wing (i.e gym unit, changeroom unit, etc) as this building will be within the footprint and operation of the new Marina Redmond Centre, City of Corner Brook.

FOREST CENTRE BUILDING

3 way Valves (motorized) 2 ½" and 2" – (16)
2 way Valves (motorized) 2 ½" and 2" – (8)

CHEMICAL STORAGE BUILDING

Exhaust Fan – Roof Mount – (1)

New

Lennox 2 Ton Heat pump serving the Herbarium AS 2010A, Model # MS7-HO-24P1A

Grenfell Campus November 3, 2015 OZONE DEPLETING SUBSTANCE EMISSION CONTROL SERVICE LOG APPENDIX "K"

	A	B	C	D	E	F	G
1	FILE CODE	SYSTEM	BUILDING	LOCATION	R-22 (LBS)	R-410A (LBS)	AREA SERVED
2	E0100	Heat Pumps Air to water	FORSTERY BUILDING	1st FL Room 1004	10		BUILDING
3	E0101	Heat Pumps Air to water	FORSTERY BUILDING	1st FL Room 1004	10		BUILDING
4	E0102	Heat Pumps Air to water	FORSTERY BUILDING	1st FL Room 1004	10		BUILDING
5	E0104	Heat Pumps Air to water	FORSTERY BUILDING	1st FL Room 1004	10		BUILDING
6	E0105	Heat Pumps Air to water	FORSTERY BUILDING	1st FL Room 1004	10		BUILDING
7	E0106	Heat Pumps Air to water	FORSTERY BUILDING	1st FL Room 1004	10		BUILDING
8	E0107	Heat Pumps Air to water	FORSTERY BUILDING	1st FL Room 1004	10		BUILDING
9	E0108	Heat Pumps Air to water	FORSTERY BUILDING	1st FL Room 1004	10		BUILDING
10	E0109	Heat Pumps Air to water	FORSTERY BUILDING	1st FL Room 1004	10		BUILDING
11	E0110	Heat Pumps Air to water	FORSTERY BUILDING	1st FL Room 1004	10		BUILDING
12	E0111	Heat Pumps Air to water	FORSTERY BUILDING	1st FL Room 1004	10		BUILDING
13	E0112	Heat Pumps Air to water	FORSTERY BUILDING	1st FL Room 1004	10		BUILDING
14	E0113	Heat Pumps Air to water	FORSTERY BUILDING	1st FL Room 1004	10		BUILDING
15	E0114	Heat Pumps Air to water	FORSTERY BUILDING	1st FL Room 1004	10		BUILDING
16	E0115	Heat Pumps Air to water	FORSTERY BUILDING	1st FL Room 1004	10		BUILDING
17	E0116	Heat Pumps Air to water	FORSTERY BUILDING	1st FL Room 1004	10		BUILDING
18	D0102	Compressor #1	FINE ARTS BUILDING	1st FL Room 110	30		GALLERY UNIT FC A0100
19	D0104	Compressor #2	FINE ARTS BUILDING	1st FL Room 110	62		THEATRE UNIT FC 0103
20	D0130	Air Conditioner Unit 5 Ton	FINE ARTS BUILDING	ROOF	8		SOUND BOOTH UNIT
21	C0100	CHILLER	LIBRARY BUILDING	1st FL Room 105	140		C0102 HVAC unit
22	A0122	Dextron Unit	ARTS & SCIENCE BUILDING	1st FL Room AS120	108		Pool
23	A0120	CAFETERIA UNIT	ARTS & SCIENCE BUILDING	1st FL Room AS120B	80		Cafeteria
24	A0121	GCSU UNIT	ARTS & SCIENCE BUILDING	Roof	16		GCSU
25	A0103	ADMIN UNIT	ARTS & SCIENCE BUILDING	Roof	40		ADMIN
26	A0101	CLASSROOM UNIT	ARTS & SCIENCE BUILDING	Roof		40	CLASSROOMS
27	A0102	LAB UNIT	ARTS & SCIENCE BUILDING	Roof		120	LABS
28	A0178	MAC LABS UNIT	ARTS & SCIENCE BUILDING	Roof		8	MAC LAB
29	A0167	SERVER ROOM 5 TON	ARTS & SCIENCE BUILDING	AS204	8		SERVER ROOM
30	A0179	SERVER ROOM 10 TON	ARTS & SCIENCE BUILDING	AS204		10	SERVER ROOM
31	A0131	STUDENT SERVICES	ARTS & SCIENCE BUILDING	Roof			STUDENT SERVICES
32	A0132	STUDENT SERVICES	ARTS & SCIENCE BUILDING	Roof			STUDENT SERVICES
33	A0133	STUDENT SERVICES	ARTS & SCIENCE BUILDING	Roof			STUDENT SERVICES
34	A0134	STUDENT SERVICES	ARTS & SCIENCE BUILDING	Roof	30		STUDENT SERVICES
35	A0117	DATA CLOSET 2 TON	ARTS & SCIENCE BUILDING	Roof		3	Data Closet AS362
36	A0386	Chiller	ARTS & SCIENCE BUILDING	AS4001		190	

Grenfell Campus November 3, 2015 OZONE DEPLETING SUBSTANCE EMISSION CONTROL SERVICE LOG APPENDIX "K"

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APPENDIX L

GRENFELL CAMPUS BELT AND FILTER LISTING BY UNIT

File Code	AHU	Belt Size	PreFilters	Main Filters
A0100	Arts & Science - Gym Unit	1 - BX-62	6 - 24x24x2 pleat Merv8A	
A0101	Arts & Science - Classroom Unit	2 - 5VX-630	8 - 20x25x2 pleat Merv8A	
A0101	Arts & Science - Classroom Unit		8 - 20x20x2 Merv8A	
A0102	Arts & Science - Lab Unit	2 - 5VX-1180	12 - 20x25x2 pleat Merv8A	
A0102	Arts & Science - Lab Unit		12 - 20x20x2 pleat Merv8A	
A0103	Arts & Science - Admin Unit	SA - 2 - B-48	4 - 20x25x2 pads Merv8A	
A0103	Arts & Science - Admin Unit	RA - 1 - B-90	2 - 20x20x2 pads Merv8A	
A0107	Arts & Science - HRU East	SA - 2 - B-48	6 - 20x20x2 pleat Merv8A	
A0107	Arts & Science - HRU East	RA - 2 - A-50	3 - 20x20x4 pleat Merv8A	
A0113	Arts & Science - HRU Res West	SA - 2 - B-48	3 - 20x20x2 pleat Merv8A	
A0113	Arts & Science - HRU Res West	RA - 2 - A-50	3 - 20x20x4 pleat Merv8A	
A0113	Arts & Science - HRU Res West		2 - 24x24x2 pleat Merv8A	
A0120	Arts & Science - Café Unit	1 - B-46	8 - 20x25x2 pleat Merv8A	
A0120	Arts & Science - Café Unit		2 - 16X25x2 pleat Merv8A	
A0121	Arts & Science - GCSU Unit	1 - B-40	2 - 20x25x2 pleat Merv8A	
A0122	Arts & Science - Dectron Unit	SA - 2 - B-75	6 - 16x25x2 pleat Merv8A	
A0122	Arts & Science - Dectron Unit	RA - 1 - A77	2 - 20x25x2 pad Merv8A	
A0123	Arts & Science - C&C Unit	1 - A-62	4 - 20x24x2 pleat Merv8A	
A0169	Arts & Science - HRV Change Rm	SA - 1 - B-41	4 - 12x24x4 pleat Merv8A	
A0170	Arts & Science - HRV Change Rm	RA - 1 - B-38	2 - 12x24x1 pleat Merv8A	
A0178	Arts & Science - Mac Lab Unit	1 - A-39	4 - 20x20x2 pleat Merv8A	
A0180	Arts & Science - Rock Rm Unit	1 - B-52	4 - 16x20x1 pleat Merv8A	
A0380	Arts & Science Ext. AHU 1	SA 2-5VX 1500	20 - 24x24x2 pleat Merv8A	20 - 24x24 OPP HMV 11
A0380	Arts & Science Ext. AHU 1	RA 2-5VX 1060	4 - 20x24x2 pleat Merv8A	4 - 20x24 OPP HMV 11
A0383	Arts & Science Ext. HRV 1	SA Direct Drive	4 - 20x24x2 pleat Merv11A	
A0383	Arts & Science Ext. HRV 1	RA Direct Drive	2 - 20x24x4 pleat Merv8A	
A0383	Arts & Science - Make-up Air	1 - AX-57	4 - 20x25x2 pleat Merv8A	
A0396	Arts & Science Ext. AHU 2	SA 2-5VX 450	4 - 20x20x2 pleat Merv8A	4 - 20x20 OPP HMV 11
A0396	Arts & Science Ext. AHU 2		4 - 20x24x2 pleat Merv8A	4 - 20x24 OPP HMV 11
A0396	Arts & Science Ext. AHU 2		1 - 24x24x2 pleat Merv8A	1 - 24x24 OPP HMV 11
C0102	Library AHU 1	SA - 2 - B-111	9 - 24x24x2 pads Merv8A	9 - 24x24x21 bag filter Merv13A
C0106	Library AHU 2	SA - 1 - B-62	2 - 24x24x2 pads Merv8A	2 - 24x24x21 bag filter Merv13A
D0100	Fine Arts - AHU 1	1- A-66	2 - 24x24x2 pads Merv 8A	2- 24x24x21 bag filter Merv13A
D0103	Fine Arts - AHU 2	SA 2 - A-35	3 - 24x24x2 pads Merv8A	3 - 24x24x21 bag filter Merv 13A
D0105	Fine Arts - AHU 3	2 - B-59	12 - 24x24x2 pads Merv8A	3 - 24x24x21 bag filter Merv 13A
D0105	Fine Arts - AHU 3		3 - 12x24x2 pads Merv8A	3 12x24x21 bag filter Merv 13A
E0141	Forest Center - AHU 1	SA - 2 - B-89	8 - 20x25x2 pads Merv 8A	8 - 20x25x21 bag filter Merv13A
E0142	Forest Center - AHU 2	SA - 5 - B-90	16 - 20x20x2 pads Merv 8A	16 - 20x20x21 bag filter Merv13A
Q0001	New Residence HRU 1	SA - 2 - BX-66	6 - 24x24x2 pleat Merv8A	3 - 24x24x4 pleat Merv 8A
Q0001	New Residence HRU 1	RA - 2 - BX-66	3 - 12X24x2 pleat Merv8A	3 - 12x24x4 pleat Merv8A
Q0002	New Residence HRU 2	SA - 2 - BX-66	6 - 24x24x2 pleat Merv8A	3 - 24x24x4 pleat Merv 8A
Q0002	New Residence HRU 2	RA - 2 - BX-66	3 - 12X24x2 pleat Merv8A	3 - 12x24x4 pleat Merv 8A