



REQUEST FOR QUOTATION (RFQ)

RFQ –1202-2025

for

General Contractor Services

For

University Hall (UH Bldg. #1) HVAC Upgrade

PROJECT No.: 20020136

ISSUE DATE: refer to Sec. 5.2

CLOSING DATE: refer to Sec. 5.2

MANDATORY SITE VISIT: Thursday Aug. 07, 2025 @ 11:30 AM

Location: UH Bldg. #1 East side Entrance

Proposals must be submitted through McMaster University's online Bonfire portal at:

<https://mcmaster.bonfirehub.ca/opportunities/43676>

This will be a fully electronic submission. Hard copy submissions will not be accepted

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REQUEST FOR QUOTATION – INSTRUCTION TO BIDDERS

1.0 OBJECTIVE

McMaster University is seeking to retain the services of a qualified General Contractor for construction of University Hall HVAC upgrade and invites qualified bidders to submit responses in accordance with the terms of this Request for Quotation (hereafter referred to as RFQ). This is a closed tender, available only to invited vendors.

The basic form of contract will be the *CCDC 2 2020* modified by McMaster University. Refer to *Appendix A* for the Supplementary Conditions to Stipulated Price Contract (CCDC 2 2020).

For the purpose of this RFQ, "Proponent" includes potential proponents, namely invited vendors who submit or consider submitting a Quotation. "Owner" refers to McMaster University.

2.0 McMASTER UNIVERSITY PROFILE

2.1 Land Acknowledgement

McMaster University recognizes and acknowledges that it is located on the traditional territories of the Mississauga and Haudenosaunee nations, and within the lands protected by the "Dish with One Spoon" wampum agreement.

2.2 McMaster University

McMaster University ("McMaster") is an innovative research community of teachers and learners. A world-renowned, research-intensive university based in Hamilton, Ontario, McMaster is one of only four Canadian universities to be listed in the World's Top 100 universities. McMaster has a full-time student population of close to 30,000, with more than 170,000 alumni living in 137 countries.

McMaster is one of Hamilton's largest employers with over 13,000 continuing and temporary employees and has been named one of Hamilton-Niagara's Top Employers for three years running.

2.3 Brighter World

McMaster University is one of only four Canadian ranked among the top 70 in the world by the major global ranking systems. As the home to over 70 research institutes and more than 33,000 students, we pride ourselves as a hub for innovation, discovery and growth.

Learn more at <https://discover.mcmaster.ca> or jump to McMaster Fast Facts [here](#).

2.4 Our Mission

At McMaster our purpose is the discovery, communication and preservation of knowledge. In our teaching, research, and scholarship, we are committed to creativity, innovation and excellence. We value integrity, quality, inclusiveness and teamwork in everything we do. We

inspire critical thinking, personal growth, and a passion for lifelong learning. We serve the social, cultural, and economic needs of our community and our society.

2.5 Equity, Diversity and Inclusion

McMaster has a vision to achieve international distinction for creativity, innovation and excellence as a research-intensive, student-centred university. In committing to that vision, we are also focused on the promotion of inclusive excellence, recognizing the critical role that diversity of identity, background and perspective play in harnessing creativity and innovation, and the importance of building inclusive and collegial teams within our community.

Learn more at <https://equity.mcmaster.ca>.

2.6 McMaster Smoke-Free Environment

As a smoke-free campus, the University is an environment that promotes health and wellness and ensures students, faculty, staff and visitors are not exposed to second-hand smoke. McMaster University does not permit smoking, or the use of tobacco products in any University owned or leased building, on University property, in any university owned vehicle or in any vehicle while on University property.

2.7 Mandatory Covid19 Policy

On August 16, 2021, McMaster University announced mandatory vaccines for all students, faculty, staff and visitors attending campus or McMaster facilities. The mandatory vaccines will be required as of September 7, 2021. Please follow this link for the relevant information from the President and Provost, as well as a link to some FAQ's (<https://covid19.mcmaster.ca/mcmaster-requires-proof-of-vaccination-and-mandatory-vaccines-a-letter-from-the-president-and-provost/>). Please follow this link for the current policies and procedures (<https://covid19.mcmaster.ca/vaccination-mandate/>).

It is important to note that McMaster continues to follow a hierarchy of controls to keep our campus community safe – this includes mandatory masking indoors at all times, masking outdoors if a 2m distance cannot be achieved, screening before coming to campus each time, encouraging hand washing and social distancing for everyone at our sites.

As a company that provides a service or occupies space on our campus, you and any of your personnel attending the campus or its related facilities will be required to follow the same policy. McMaster will look to you to provide evidence of compliance with this requirement of testing and full vaccination for all personnel attending the campus.

Proponents must complete the Declaration with bid submissions regarding compliance with McMaster University's current Covid 19 vaccination mandate.

3.0 PROJECT SUMMARY

New system upgrades are proposed for the UH Historic building as mandated by currently adopted standards and regulations regarding ventilation of McMaster University facilities. New air handling units are proposed to service specific rooms and areas in the building and will be housed within the existing attic space and the First Floor corridor beneath Convocation Hall. Temporary access through the upper flat roof to the attic space will be necessary for the installation of this equipment. Miscellaneous associated service platforms and access devices will be required throughout the facility to accompany the new equipment. Existing interior vertical chases are being modified to accommodate the upgraded ventilation ducting through all levels of the building. Bulkheads will be required at specific locations with the remainder of the piping and ducting running painted and exposed through office spaces where required. Special accommodation will need to be made in scheduling of the work as the building will remain occupied through the duration of the renovations.

Please refer to Specification Section 01 14 00 Work Restrictions for detailed requirements regarding the sequence of work and schedule coordination. Construction is to commence immediately upon contract award, with on-site activities anticipated to begin by the fourth week of September. The project is expected to be ready for *takeover* by May 29, 2026.

4.0 SCOPE OF SERVICES

4.1 General

The Scope of Services to be provided by the Proponent will include all General contracting services necessary to meet the requirements of the Owner and in accordance with CCDC 2 20 and the McMaster supplemental conditions to CCDC 2 20. The Project will comply with all governing legislation, codes, laws, by-laws and requirements of authorities having jurisdiction.

4.2 The Proponent will assign a competent Project Manager and Site Superintendent to this project. The Site Superintendent will be dedicated to the project for the duration of construction.

4.3 If requested, the Proponent will provide complete disclosure in its fee schedule of all Sub-Consultants' fees to allow for a complete and thorough evaluation of the Proponent's submission.

The Owner has prequalified certain sub-contractor services required to be engaged by the Proponent for the Project, as identified in Appendix D. It is recommended that, for the services identified therein, Sub-Contractors be selected from the prequalified list(s), as they have met the Owner's minimum criteria such as quality standards, Health and Safety, training and experience required to work on specific buildings owned and operated by the University. Should the Proponent propose to use a Sub-Contractor from outside of the list(s) for a service identified in Appendix D, it will be permitted however shall be subject to an evaluation process and acceptance by the Owner. The Proponent shall be required to prove to the Project Manager the proposed engineer or consultant's ability to perform the Work. The documents that will be required to be submitted include but will not be limited to: CCDC 11 – 1996 (R20006), WSIB - CAD 7 Form, completed Health and Safety Questionnaire (available upon request), training certificates and resumes of proposed lead personnel. If the Owner determines that the proposed engineer or consultant does not have the qualifications or experience to perform the Work, then the Proponent shall propose an alternate Sub-Consultant acceptable to the Owner at no extra cost to the Owner.

- 4.4** The Contractor shall not be allowed to change the Sub-Contractor identified in its submission except by written consent of the Owner.
- 4.5** "Own Forces" or similar designation is not acceptable in lieu of a Sub-Contractor unless the Proponent includes with its submission written confirmation of employment of permanent personnel capable for performing the Work so identified. Violation of this condition may disqualify the Proponent from further consideration of their submission.

5.0 PROCUREMENT PROCESS

This RFQ will result in the selection of a General Contractor. It is estimated that the procurement stage will have a number 15 days time frame for submissions.

Proposals will be considered irrevocable for sixty (60) days following closing date and time and will be retained by the University.

Proposals shall be originally signed by an authorized signatory of the Proponent. If the Proponent is an incorporated company, the corporate seal of the Proponent shall be affixed or a certified true copy of a resolution of the corporation naming the person(s) in question as authorized to sign agreements on behalf of the corporation shall be attached to the proposal. Upon being selected (where that is the case), the successful Proponent will be required to supply proof satisfactory to the University of appropriate authorization to bind the Proponent.

All Proponents shall sign their bids to irrevocably bind the Proponent in an authorized manner.

5.1 Site Visit

A mandatory site visit will be held on:

Thursday, August 07, 2025. at 11:30 AM (EDT/EST). Proponents are requested to meet at UH Bldg.#1 East side Entrance – (see attached campus map)

The purpose is to view the facilities and clarify the specifications and identifying the Services requested in this RFQ.

Any Bidder(s) arriving late to the site visit may not be able to sign the sign-in sheet and risk disqualification from bidding. Only use for Mandatory Site Visit)

5.2 Closing Date and Submission Process

Proposals will be accepted in accordance the timetable below.

Issue Date of RFQ	Tuesday, Aug. 05, 2025.
Deadline for Questions	Wednesday, Aug. 20, 2025. at 12:00:00 EDST
Deadline for Issuing Addenda	Friday, Aug. 22, 2025.
Closing	Tuesday, August 26 th , 2025 at 14:00 EDST

Quotations shall be submitted online on the McMaster University Facility Services e-Procurement Portal at

<https://facilities-mcmaster.bonfirehub.ca/opportunities>

Proposals by other methods will not be accepted.

Please contact Bonfire at support@gobonfire.com for technical questions related to your submission. You can also visit their help forum at <https://bonfirehub.zendesk.com>

Minimum system requirements are: Internet Explorer 8/9/10+, Google Chrome or Mozilla Firefox. Javascript must be enabled.

In order to submit & finalize, Proponents must upload all required documents as noted under the Requested Information section within the Bonfire project web portal. Please note the type and number of files allowed. The maximum upload file size is 1000 MB. Please do not embed any documents within your uploaded files, as they will not be accessible or evaluated. Proponents will receive an email confirmation receipt with a unique confirmation number upon finalizing their submissions.

It is strongly recommended that Proponents give themselves sufficient time before the Close Date to begin the uploading process and finalize their submissions. It will be at the Proponent's sole risk to assure on-time submission. There is NO extension to the submission deadline unless notified through an addendum. McMaster University does not take responsibility for any technical issues that occur with connectivity or the Bonfire web portal. Submissions received by any other means will not be accepted.

For further details on creating and uploading a submission, please refer to the following article: <https://support.gobonfire.com/hc/en-us/articles/360011034814>

Proponents will receive an email confirmation receipt with a unique confirmation number upon finalizing their submissions.

5.3 Amendment of Quotation

A Proponent may amend its Quotation after submission only if the Quotation is amended and resubmitted before the Closing Date and replaced with a revised Quotation.

5.4 Withdrawal of Quotation

A Proponent may withdraw its Quotation prior to the Closing Date. Following the Closing Date, Quotations may not be withdrawn.

- 5.5** Where a Proponent's Proposal fails to substantially comply with the requirements of this RFQ, such non-compliance may result in disqualification of the Proponent's Proposal, in the sole discretion of the University.

6.0 CLARIFICATIONS AND ADDENDA PROCESS

6.1 Clarifications

To contact the Owner or ask questions in relation to this RFQ, Proponents must initiate the communication electronically through the Opportunity Q&A tab under the Messages section within the Bonfire project web portal. The Q&A period for this RFQ ends 72 hours prior to the Close Date. Proponents will not be able to send messages after this time. McMaster University will not accept any Proponent's communications by any other means, except as specifically stated in this RFQ.

For further details on how to use the Opportunity Q&A feature, please refer to the following article: <https://support.gobonfire.com/hc/en-us/articles/115015333227>

6.2 Addenda

Should a question be considered relevant to all Proponents, McMaster University will provide both the question and the answer to all Proponents by way of addendum posted through the Public Notices tab under the Messages section within the Bonfire project web portal. All addenda will be posted no later than 48 hours prior to the Close Date. Each addendum forms an integral part of this RFQ and may contain important information, including, but not limited to, extensions and significant changes to this RFQ. Proponents are responsible for obtaining all addenda issued by McMaster University.

For further details on how to use the Public Notices feature, please refer to the following article: <https://support.gobonfire.com/hc/en-us/articles/360019846194>

6.3 Communication

McMaster University and all Proponents are to use the Messages section within the Bonfire project web portal for communication related to this RFQ. No other form of communication is permitted to be used in reference to this RFQ unless otherwise indicated. McMaster University accepts no responsibility for, and the Proponent agrees not to rely upon, any verbal or written statements or representations from any other means or person, whether or not employed by McMaster University. Violation of this condition may disqualify the Proponent(s) from further consideration of their submission.

7.0 SUBMISSION REQUIREMENTS

Each Proposal shall include the following Mandatory Requirements (pass & Fail criteria):

The information requested in this section is Mandatory. Failure to provide any of the requested Mandatory Requirements will result in disqualification.

Please ensure all information identified below is included in your submission:

- a. Letter from Insurance Provider
- b. Letter from surety - Provide a signed letter from your Surety company, stating your company's bonding capacity.
- c. Signed H&S form
- d. Completed Form of Acceptance of CCDC 2 2020 Supplementary conditions
- e. WSIB Clearance Certificate of Good Standing

- f. Completed Bid Forms

8.0 SELECTION PROCESS

8.1 Bid Irregularities

Faxed or emailed bids will be declared invalid.

Time is of essence with respect to the submission of a bid. Bids received after the time stated for delivery will not be opened. It remains the sole responsibility of the bidder to ensure that the submission is made before time. No exceptions.

Qualifications on the Bid Form, a bid restricted by a limiting condition added to the bid form, or alterations to the bid form may be cause for rejection of the bid.

Bids may be declared invalid for one or more of the following reasons at the exclusive discretion of the *Owner*; do not have blank spaces completed; addenda not acknowledged; are conditional; contain irregularities; or does not comply with the authorized signature requirements listed in item 1.7 of the Instructions to Bidders.

Addenda or notification of an issued addendum will only be issued to Bidders that attended and signed the mandatory site visit sheet. Bidders shall ensure that their sub-trades receive the addenda.

Consultant and *Owner* will not accept or consider claims for extra costs incurred by a Bidder whose bid has been accepted, which are due to the failure of the Bidder or *Subcontractors* to have reviewed the complete bid document including addenda issued during the bid period.

8.2 Bid Opening

Bids will not be opened publicly. This is a closed tender opening.

8.3 Bid Evaluation and Award

The selection process shall commence by checking all submitted bids for mandatory submission requirements that are listed under Section 7 of the Instructions to Bidders. In addition, bonding and insurance requirements and any other project specific requirements listed elsewhere in these documents are considered mandatory for the purposes of bid evaluation. Submissions not meeting the mandatory requirements shall not be considered further and submitted costs will not be evaluated.

Owner will be under no obligation to accept the lowest or any bid and will have the right to reject any or all bids in its sole, absolute and unfettered discretion.

The *Owner* may not award a contract if all bids are over the project budget amount.

In the event that all bids submitted exceed the *Owner's* budget for the Work, the *Owner* may negotiate changes in the Work as described by the Contract Documents with the Bidder submitting the lowest bid price in a compliant or substantially compliant bid.

The *Owner* reserves the right for partial award of this *Contract* for budgetary or any other reason at the sole discretion of the *Owner* for any portion of the Work identified in this document. This includes the alternate prices, separate prices and optional prices identified in the Supplementary bid form, if applicable. No additional compensation will be considered due to a reduction in the *Contract Price*.

The *Owner* reserves the right to verification of any vague, ambiguous or unclear aspect of a bid after bid opening, however is not obliged to do that and may elect to declare such a bid invalid. The determination shall be made exclusively by and at the sole discretion of the *Owner*.

The *Owner* will request to complete and submit the Base Bid Breakdown of Prices table, included in Section 00430, Supplementary Bid Form – Pricing, from one or more of the low bidders. The bidders must submit this information within 24 hours of the receipt of such a request.

The *Owner* reserves the right to make an award on an overall basis, including consideration of alternate proposals and proposed substitutions which may be offered in writing with the bid, without explanation. The lowest compliant submission shall be determined exclusively by the *Owner* after comparison of the base bid price and all other submitted information.

8.4 Acceptance and Irrevocability of Bid

Bids shall be irrevocable for sixty (60) days from the tender closing date.

8.5 Bid Security

For all bids in excess of One Hundred Thousand Dollars, submit with the Bid Form, a bid bond / certified cheque issued by a surety company acceptable to the *Owner* in the amount of 10% of the tender price as evidence of good faith that if awarded the *Contract*, the successful Bidder will execute and enter into a formal agreement within the time required and will furnish the security required to obtain the performance of the terms of the *Contract*.

Amount of the bid bond / certified cheque shall be paid to the *Owner* if the Bidder fails to execute the *Contract Documents* within 14 days of written notification of having been awarded the *Contract* or to furnish a performance bond within 10 days of receiving notification of having been awarded the *Contract*.

Upon execution of a *Contract* the bid bond / certified cheque shall be null and void.

9.0 PROPONENT ACCEPTANCE

By submitting a Quotation, the Proponent agrees to accept and to be bound by all of the terms and conditions contained in this RFQ, including any Schedule, Exhibit and/or Appendices thereto, and to the representations, terms and conditions contained in its Quotation.

10.0 ONTARIO FREEDOM OF INFORMATION AND PROTECTION OF PRIVACY ACT (FIPPA)

Proponents acknowledge that the University is subject to the Ontario Freedom of Information and Protection of Privacy Act ("**FIPPA**", or the "**Act**"). Proponents shall clearly mark "**Confidential**" on all information regarding trade secrets, commercial, financial, labour relations, technical or other aspects of the Proponent's Proposal which, in the Proponent's opinion are of a proprietary or confidential nature are significant enough to be injurious to the Proponent should this information be provided under a request of information.

The University shall use all reasonable efforts to hold all information marked "**Confidential**" by the Proponent in strict confidence where required or permitted by law but shall not be liable for any action as contemplated by Section 62 (2) of the Act.

If the University's response to a request under the Act is appealed to the Information and Privacy Commissioner for Ontario, the Proponent shall have the burden of proof per Section 53 of the Act. The Proponent shall be responsible for all costs related to its confidentiality requirements.

All Proponents are advised that McMaster University is subject to trade agreements, which may result in disclosure of information.

11.0 CONFIDENTIAL INFORMATION OF PROPONENT

A Proponent should identify any information in its Proposal, or any accompanying documentation supplied in confidence for which confidentiality is to be maintained by the University, except as otherwise required by law, trade agreements or by order of a court or tribunal. Proponents are advised that their Proposals will, as necessary, be disclosed on a confidential basis, to the University's advisers retained for the purpose of evaluating or participating in the evaluation on their Proposals. If a Proponent has any questions about the collection and use of personal information pursuant to the RFP, questions are to be submitted to the University Contact.

12.0 HUMAN RIGHTS POLICIES AND PROCEDURES

Proponents agree to be governed by the provisions of the Ontario Human Rights Code. In furtherance of the commitment, the Proponents agree to comply with the provisions of the *University's* Human Rights Policy and Procedures. The Proponents also agree to comply with any successor policies and procedures to the document that the Owner's Board of Governors may approve.

13.0 TRADE AGREEMENTS

The University is subject to the Broader Public Sector Procurement Directive (Ontario), which sets out procurement rules for broader public sector organizations (Broader Public Sector Procurement

Directive: <https://www.doingbusiness.mqs.gov.on.ca/mbs/psb/psb.nsf/EN/bps-procurementdirective>),

The Canada- European Union Comprehensive Economic and Trade Agreement (CETA):

<http://www.international.gc.ca/gac-amc/campaign-campagne/ceta-aecq/index.aspx?lang=eng>;

and the Canadian Free Trade Agreement, particularly Chapter Five - Government Procurement, which sets out procurement principles and rules for publicly-funded academic service entities (: <https://www.cfta-alec.ca/canadian-free-trade-agreement/>).

14.0 COMPETITION ACT

Under Canadian law, the Proponent's Quotation must be arrived at separately and independently, without conspiracy, collusion or fraud.

15.0 ACCESSIBILITY FOR ONTARIANS WITH DISABILITIES ACT (AODA)

McMaster University is committed to accessibility as expressed in the Accessibility for Ontarians with Disabilities Act (hereinafter referred to as the AODA), which places a legal obligation on McMaster to provide accessibility for Ontarians with disabilities with respect to goods, services, facilities, accommodation, employment, buildings, structures and premises on or before January 1, 2025. McMaster University is committed to fostering, creating and maintaining a barrier-free environment for all individuals providing equal rights and opportunities, and as a result has established the McMaster University Accessibility Policy, which can be referenced at:

Document: <https://secretariat.mcmaster.ca/app/uploads/2019/05/Accessibility.pdf>

All members of the University community, including Suppliers required to be on campus, contractors and Subcontractors engaged by McMaster University, are responsible for adhering to and following the commitments set out in the Accessibility Policy. Bidders and their Subcontractors must agree to adhere to the Policy. Those required to complete training may refer to the University's AODA Training Matrix at:

Document: <https://accessibility.mcmaster.ca/training/aoda-and-human-rights-code-training/>

Scroll to the bottom of the page for the training videos. You may skip the registration via Mosaic at the top of the page and visit the 5 training videos closer to the bottom of the page. To learn more about accessibility at McMaster, visit <https://accessibility.mcmaster.ca>.

16.0 LIMITATION OF DAMAGES

Each Proponent, by submitting a Proposal, agrees that:

- a. in the event any or all Proposals are rejected, or this RFSQ is modified, suspended or cancelled for any reason, neither McMaster nor any of its employees, advisors or representatives will be liable, under any circumstances, for any Claim or to reimburse or compensate the Proponent in any manner whatsoever, including but not limited to costs of preparation of the Proposal, loss or anticipated profits, loss of opportunity or for any other matter.
- b. the Proponent waives any and all Claims whatsoever, including Claims for loss of profits or loss of opportunity, in the event that the Proponent is rejected or is not successful in this RFSQ or for any other reason; and
- c. with respect to circumstances not listed in the foregoing subsection (a) and (b), the Proponent will not make any Claim against McMaster or its employees, advisors or representatives in excess of an amount equivalent to the reasonable costs of preparation of the Proposal for any matter relating to the RFSQ process.

17.0 RESERVATIONS OF RIGHTS

McMaster reserves the right, in its sole and absolute discretion, to:

- a. amend the scope, modify, cancel or suspend this RFSQ process or any or all stages, at any time for any reason.
- b. accept or reject any Proposal based on the review and classification criteria as determined in the sole and absolute discretion of McMaster.
- c. not accept any or all Proposals.
- d. reject or disqualify all or any Proposal without any obligation, compensation or reimbursement to any Proponent or any of its team members.
- e. re-advertise for new Proposals, call for tenders, or enter into negotiations for work of a similar nature.
- f. make any changes to the terms of the business opportunity described in this RFSQ.
- g. extend, from time to time, any date, time period or deadline provided into this RFSQ, upon written notice to all Proponents; and
- h. cancel the RFQ at any time without entering into any contracts.

18.0 OWNERSHIP OF RESPONSES

All documents including Proposals submitted to McMaster become the property of McMaster. They will be received and held in confidence, subject to the provisions of this RFQ and the FIPPA.

19.0 SPECIAL INSTRUCTIONS TO BIDDERS

19.1 Regulations

The Bidder and their *Subcontractors* shall strictly abide by the requirements of the Occupational Health and Safety Act.

19.2 New Truck routes

As per the City of Hamilton By-law, trucking in and out of University property must be by way of Main Street and Cootes Drive entrances/exits only. Truck routes by way of Sterling Street and Forsythe Drive have been rescinded. Access to the campus for destinations North of Sterling Street will be made via the Main Street gate. For all other destinations, trucks will use the Cootes Drive gates. Stirling Street entrance must not be used for entering or exiting. Municipal truck routes are being strictly enforced by the City. Also refer to 01000 General Instructions Item 5.1.

19.3 Keys

Keys to access areas of the work may be issued to the successful bidder. A deposit of \$1,000.00 per key will be required. Cheque must be made payable to McMaster University. Upon return of the keys, a cheque will be processed to refund the key deposit. The successful bidder will be fully responsible for such keys. It is imperative that the key holder ensures that the owner's doors are kept secured at all times and that no unauthorized persons access the spaces opened as a result of the Work.

19.4 Parking

The *Contractor* shall comply with the McMaster University Parking Regulations. A copy of these regulations may be obtained from the Office of the Parking Administrator at the E.T. Clarke Centre or from the Parking Services website: <http://parking.mcmaster.ca/>.

Externally marked commercial vehicles have access to the campus for deliveries. Parking on campus requires payment and adherence to the Parking regulations.

Monthly parking permits may be available on West Campus at the current rates at the discretion of Parking Services.

All vehicles must park in designated parking lots. Parking Services offers free shuttle bus service from West Campus lots to a central Campus drop off point during working hours. Current rates and bus schedules can be found on the Parking Services website.

Vehicles used on campus by *Contractors* must comply with City and Provincial licensing and operating Regulations.

Tracked or cleat type equipment shall not be operated on University property, including sidewalks and roadways, unless proper protection is provided to adequately prevent tearing or marking of the surface.

19.5 Waste Removal

McMaster University has a contract with a waste disposal vendor. Successful Bidder encouraged to contact and use the University's vendor for disposal of any construction debris, including asbestos.

19.6 Designated Substance Requirements

All bidders working on Designated Substances must be certified by the Ministry. Copies of the certification for all employees working at the McMaster site must be provided to the *Project Manager* before beginning work. McMaster University also requires proof of supervisory certification for the supervisor of those workers.

Using tender drawings, project specifications and the Hazardous Material Assessment Report and Specifications, the successful bidder shall tender all remediation work providing a minimum of three (3) quotations for selection by McMaster University. Remediation work shall be managed by the successful bidder and paid for using the Cash Allowance. McMaster University shall engage and pay for an Environmental Consultant to provide monitoring and testing in accordance with McMaster Designated Substances Control Program during construction. The Contractor shall allow for coordinating all remediation work with the Environmental Consultant as required.

19.7 Health & Safety

The requirements of the Facility Services Contractor Handbook, which has been included with the tender package, shall become an integral part of this *contract*. The attached Health & Safety questionnaire has to be completed and submitted.

The Risk Management Policies in our web page shall be complied with by the Bidder and all *Subcontractors*.

Web Address for Risk Management Manual: risk-management-manuals-rmms.

20.0 PRE-QUALIFIED BIDDERS

The Owner has pre-qualified the following trade contract services: Controls, Electrical, Mechanical, Abatement, Roofing and Sheet Metal. Select pre-qualified trade contractors have been provided in Appendix D.

21.0 Confidentiality

The Bidders agrees to ensure that it shall maintain the confidentiality and security of all Confidential Information and Personal Information, and that it shall not directly or indirectly disclose, destroy, exploit, or use any Confidential Information or Personal Information, except where required by law, without first obtaining the written consent of the *Owner*. The Bidders may disclose any portion of the *Contract Documents* or any other information provided to the Bidder by the *Owner* to any *Subcontractor* or *Supplier* if the Bidder discloses only such information as is necessary to submit a proposal and the Bidder has included a commensurate confidentiality provision in its contract with the *Subcontractor* or *Supplier*. The Bidders acknowledges that it will comply with all requirements of the Personal Information Protection and Electronic Documents Act. If any portion of the submission made by the Bidder is confidential, the Bidder may insert a watermark that says "CONFIDENTIAL" and the Owner will make every effort to maintain its confidentiality. The Bidder acknowledges that the *Owner* is bound by the provisions of the *Freedom of Information and Protection of Privacy Act* (FIPPA). The Bidders are advised that the *Owner* may be required to disclose any or all of the Confidential Information and Personal Information in the event that it is compelled to do so by law, through a request under FIPPA, or by the rules of any applicable regulatory authority.

END OF INSTRUCTION TO BIDDERS

DIVISION 00 – BID FORMS

Section 00410 SUMMARY PROPOSAL FORM

Project Title and Location: **University Hall HVAC upgrade**
P20020136

Submitted To: Ehab Kamarah, Ph.D., P.Eng.
Assistant Vice President and Chief Facilities Officer
Campus Services Building, Room 121,
McMaster University, Hamilton, Ontario
Delivered: Via Bonfire

We, _____
(Company Name)

of _____
(Business Address)

having examined the *Contract Documents* including addenda No. ____ to No. ____ inclusive (receipt of which is hereby acknowledged), and visited and examined the site, and examined all conditions affecting the work, hereby proposes and offers to furnish all material, labour, service, equipment and all incidentals, and to render all services and pay all applicable taxes (except HST) and all other charges as specified and/or as necessary for performance and completion of the *Work* required by the tender documents for the stipulated base bid price of:

_____ Dollars (\$ _____),
(in Words) (In figures)

The above base bid is in Canadian funds, **includes** all specified Cash and Contingency Allowances, is based on specified *products* or systems and includes all taxes and duties except Harmonized Sales Tax (HST) in force on this date.

We have identified the harmonized sales taxes (**HST**) in the amount of:

_____ Dollars (\$ _____),
(in Words) (In figures)

in Canadian funds is applicable to the *Work* but is excluded from our Bid Price.

Total Tendered Price:

_____ Dollars (\$ _____),
(in Words) (In figures)

DECLARATION FORM

We hereby declare that:

- a) The Supplementary Bid Forms required for this tender, are attached and form an integral part of this Bid;
- b) We agree to use the mark-ups for changes in the *Work* as described in Supplementary Conditions;
- c) We agree to substantially perform the *Work* not later than **Friday May 29th, 2026**;
- d) No person, firm or corporation other than the undersigned has any interest in this Tender or in the proposed Contract for which this Tender is made;
- e) This Tender is open to acceptance for a period of sixty (60) days from the date of tender closing;
- f) We have enclosed the following with this tender (unless called for as 'not required' or not provided in the tender documents):
 - a. Bid Bond
 - b. Agreement to Bond (Performance and Labour and Materials Bond)
 - c. Supplementary Bid Form 00430 (Pricing)
 - d. Supplementary Bid Form 00431 (Subcontractors List)
 - e. Supplementary Bid Form 00432 (H&S Questionnaire)
- g) By signing this Declaration, the Proponent attests that it has read, acknowledges and agrees to comply with McMaster University's current Covid 19 vaccination mandate and policies, from time to time (LINK), should it be selected as the successful proponent.

Signatures:

Signed, sealed and submitted for and on behalf of:

Company: _____

(Name)

(Street Address or Postal Box Number)

(City, Province & Postal Code)

(Apply SEAL above)

Signature: _____

Name & Title: _____

(Please Print or Type)

Witness: _____

Dated at this day of , 20 .

Section 00430 SUPPLEMENTARY BID FORMS

ITEMIZED PRICES

The following Itemized prices are included in the Base Bid Price and may be deleted by the owner at the time of the bid assessment and contract award process. **Prices do not include HST.**

No.	Description	Price(\$)

SEPARATE PRICES

The following separate prices are not included in the Base Bid Price. We understand that any one or all of the following separate prices can be selected by the owner and included in the total Contract amount. **Prices do not include HST.**

No.	Description	Credit (\$)	Extra (\$)

ALTERNATE PRICES – PRODUCTS / SYSTEM OPTIONS

The following proposed alternate prices are not included in the Base Bid Price. The owner may select any one or all of the following proposed alternates after the contract award, and at that time will require details including specifications, modifications, and revisions to other work for each alternative. **Prices do not include HST.**

No.	Description of Alternate	Deduct from Base Bid (\$)	Change in Time (Days)

SUPPLEMENTARY BID FORM – UNIT PRICES

LIST OF UNIT PRICES

The following unit prices are used to determine payment for work added to and/or deducted from the Contract as shown on the drawings and required by the Specifications. These unit prices are for work measured in place, inclusive of all materials, labour, equipment, overhead, profits, taxes and miscellaneous charges. Submitting a Unit Price shall not prevent the Owner and the Consultant from negotiating a lump sum price for a Change to the Contract. **Prices do not include HST.**

No.	Description	Unit Price Add (\$)	Unit Price Deduct (\$)	Change in Time (Days)
1.	Labour rate – After hours and Weekends			
2.	Supervisor rate – After hours and Weekends			

3. Scope of Work	Regular Working Hours		After Hours	
	Demo of Existing	Provision of New	Demo of Existing	Provision of New
10ft of 1/2"0 Pipe	\$ _____	\$ _____	\$ _____	\$ _____
10ft of 3/4"0 Pipe	\$ _____	\$ _____	\$ _____	\$ _____
10ft of 1"0 Pipe	\$ _____	\$ _____	\$ _____	\$ _____
10ft of 1-1/4"0 Pipe	\$ _____	\$ _____	\$ _____	\$ _____
10ft of 1-1/2"0 Pipe	\$ _____	\$ _____	\$ _____	\$ _____
10ft of 2"0 Pipe	\$ _____	\$ _____	\$ _____	\$ _____

10ft of 2-1/2"0 Pipe	\$ _____	\$ _____	\$ _____	\$ _____
10ft of 3"0 Pipe	\$ _____	\$ _____	\$ _____	\$ _____
10ft of 4"0 Pipe	\$ _____	\$ _____	\$ _____	\$ _____

Project Personnel

We propose to use the following lead personnel for this project and hereby confirm that they have the required knowledge, qualifications and experience as required by the contract documents to carry out this project. We will not change the proposed project personal shown below without prior approval from the Owner and the Consultant.

Position	Name
Contractor's Project Manager	
Site Superintendent	
Site Foreman	

Section 00430a SUPPLEMENTARY BID FORM – BID BREAKDOWN

To Be submitted within 24 hours of Bid Closing

The table “**Base Bid Breakdown of Prices**” is not required to be completed at the time of tender close. However, this information *is required* from all bidders during the bid assessment and prior to bid award.

Therefore, all bidders must complete and submit the Base Bid Breakdown of Prices table within 24 hours from the time of tender close. All other tables included in this section must be completed and submitted at the time of tender closing.

Base Bid Breakdown of Prices

The following is the cost breakdown of the total base bid price shown on the tender form. **Prices do not include HST.**

No.	Item No.	Price (\$)
1	Project Overhead and Administrative Costs	
.1	Bonding, Insurance, etc.	
.2	Mobilization & Demobilization	
.3	Project Administration	
2	Construction Divisions Cost	
.1	Demolition	
.2	Structural	
.3	Roofing	
.4	Drywall & Interior Finishes	
.5	Mechanical Plumbing	
.6	Mechanical HVAC	
.7	Electrical	
.8	Equipment	
.9	Cash Allowances (Hazardous Materials Remediation)	\$ 25,000
.10	BAS Control	
Total Base Bid (Transfer this amount to the Tender Form)		\$

Section 00431 SUPPLEMENTARY BID FORM – SUB-CONTRACTOR LIST

Bidders must submit the Supplementary Bid Form Sub-contractor List within the Tender Form. The name of each *Subcontractor* who will be employed and whose quotation has been used in arriving at the Bidder's Contract Price, together with the nature of the work to be performed by the *Subcontractor* shall be included in the list.

SUBCONTRACTOR LIST

We propose to employ the following subcontractors for the execution of the Work:

DIVISION	NAME	PREQUALIFIED CONTRACTOR
Sheet Metal *		Yes <input type="checkbox"/> / No <input type="checkbox"/>
Controls *		Yes <input type="checkbox"/> / No <input type="checkbox"/>
Mechanical *		Yes <input type="checkbox"/> / No <input type="checkbox"/>
Electrical *		Yes <input type="checkbox"/> / No <input type="checkbox"/>
Roofing *		Yes <input type="checkbox"/> / No <input type="checkbox"/>
		Yes <input type="checkbox"/> / No <input type="checkbox"/>
		Yes <input type="checkbox"/> / No <input type="checkbox"/>
		Yes <input type="checkbox"/> / No <input type="checkbox"/>
		Yes <input type="checkbox"/> / No <input type="checkbox"/>
		Yes <input type="checkbox"/> / No <input type="checkbox"/>
		Yes <input type="checkbox"/> / No <input type="checkbox"/>
		Yes <input type="checkbox"/> / No <input type="checkbox"/>
		Yes <input type="checkbox"/> / No <input type="checkbox"/>
		Yes <input type="checkbox"/> / No <input type="checkbox"/>
		Yes <input type="checkbox"/> / No <input type="checkbox"/>
		Yes <input type="checkbox"/> / No <input type="checkbox"/>
		Yes <input type="checkbox"/> / No <input type="checkbox"/>
		Yes <input type="checkbox"/> / No <input type="checkbox"/>
		Yes <input type="checkbox"/> / No <input type="checkbox"/>
Others (Specify)		
		Yes <input type="checkbox"/> / No <input type="checkbox"/>
		Yes <input type="checkbox"/> / No <input type="checkbox"/>
		Yes <input type="checkbox"/> / No <input type="checkbox"/>
		Yes <input type="checkbox"/> / No <input type="checkbox"/>

* Refer to 20. Prequalified Subcontractors of the Instructions to Bidders

Section 00432 HEALTH & SAFETY QUESTIONNAIRE

COMPULSORY REQUIREMENTS

(all contractors working for McMaster University shall provide the following)

1. Provide copies of:

- | | |
|--|------------------------------|
| a. Workers' Safety & Insurance, Certificate of Clearance | Yes <input type="checkbox"/> |
| b. Construction Project Safety Management Plan | Yes <input type="checkbox"/> |

HEALTH & SAFETY PROGRAMS AND PROCEDURES

2. Include copies of work practises and standard operating procedures for the following:

- | | |
|--|------------------------------|
| a. WHMIS | Yes <input type="checkbox"/> |
| b. Personal Protective Equipment | Yes <input type="checkbox"/> |
| c. Portable Electrical/Power Tools | Yes <input type="checkbox"/> |
| d. Fall Protection | Yes <input type="checkbox"/> |
| e. Vehicle Safety | Yes <input type="checkbox"/> |
| f. Housekeeping | Yes <input type="checkbox"/> |
| g. Accident/Incident Reporting | Yes <input type="checkbox"/> |
| h. Unsafe Condition Reporting | Yes <input type="checkbox"/> |
| i. Emergency Preparedness, including evacuation plan | Yes <input type="checkbox"/> |
| j. Waste Disposal | Yes <input type="checkbox"/> |

The following may not be applicable to all contractors (including subcontractors):

- | | |
|--|---|
| k. Lockout and Tagout (LOTO) | Yes <input type="checkbox"/> N/A <input type="checkbox"/> |
| l. Confined Space Entry, Rescue, First Aid/CPR | Yes <input type="checkbox"/> N/A <input type="checkbox"/> |
| m. Compressed Gas Cylinders | Yes <input type="checkbox"/> N/A <input type="checkbox"/> |
| n. Electrical Equipment Grounding Assurance | Yes <input type="checkbox"/> N/A <input type="checkbox"/> |
| o. Powered Industrial Vehicles (Cranes, Forklifts, etc.) | Yes <input type="checkbox"/> N/A <input type="checkbox"/> |
| p. Asbestos Removal | Yes <input type="checkbox"/> N/A <input type="checkbox"/> |

3. Do you have written programs for the following:

- | | |
|---|--|
| a. Hearing Conservation | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| b. Respiratory Protection | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| c. Hazard Communication | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| d. Where applicable, have employees been: | |
| i. Trained | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| ii. Fit Tested | Yes <input type="checkbox"/> No <input type="checkbox"/> |

iii. Medically approved Yes ☐ No ☐

4. Do you have a corrective action process for addressing individual Health & Safety performance deficiencies? Yes ☐ No ☐

5. Equipment and Materials

a. Do you have a system for performing hazard evaluations and establishing applicable health, safety and environmental specifications for acquisition of materials and equipment? Yes ☐ No ☐

b. Do you conduct inspections and maintenance on operating equipment in compliance with regulatory requirements (e.g., cranes, forklifts, etc.)? Yes ☐ No ☐

c. Do you maintain the applicable inspection and maintenance certification records for operating equipment? Yes ☐ No ☐

6. Subcontractors

a. Do you evaluate the ability of subcontractors to comply with applicable health and safety requirements as part of the selection process? Yes ☐ No ☐

b. Do subcontractors have a written Health & Safety Policy/Program? Yes ☐ No ☐

7. Inspections and Audits

a. Do you conduct Health & Safety inspections? Yes ☐ No ☐

b. Are corrections of deficiencies documented? Yes ☐ No ☐

8. Risk Management Policies reviewed and shall be complied with. Yes ☐ No ☐

9. Physical Plant Safety Handbook and McMaster University emergency procedure policies received and shall be complied with. Yes ☐

10. To comply with all applicable health and safety legislation, regulations for construction projects, fire regulations, environmental protection legislation, Municipal Bylaws, industry standards Yes ☐ No ☐

HEALTH & SAFETY TRAINING

11. Health & Safety Training:

a. Do you know the regulatory Health & Safety training requirements for your employees?

Yes ☐ No ☐

12. Job Skills

a. Are employee job skills certified where required by regulatory or industry standards? Yes ☐ No ☐

13. Training Records

a. Do you have Health & Safety and job skills training records for employees? Yes ☐ No ☐

b. How do you verify understanding of training (check all that apply)?

i. Written test Yes ☐ No ☐

ii. Performance test Yes ☐ No ☐

iii. Job Monitoring Yes ☐ No ☐

iv. Oral test Yes ☐ No ☐

v. Other (list) _____

c. Include copies of training records: Yes ☐ No ☐

Employee Identification

Subject

Date of training

Name of Trainer

Methods used to verify understanding

14. Health & Safety Orientation

a. Do you have a Health & Safety Orientation Program for new hires and newly hired or promoted supervisors?

New Hires Yes ☐ No ☐

Supervisors Yes ☐ No ☐

HEALTH & SAFETY MANAGEMENT

15. Highest ranking health & safety professional in the company:

Title: _____ Name: _____

Telephone: _____ Fax: _____

Email: _____

16. Do you have a Health & Safety Coordinator? Yes ☐ No ☐

17. Do you provide company-paid health/safety training? Yes ☐ No ☐

18. Is your company experience rated (CAD-7 or equivalent)? Yes ☐ No ☐
(If yes - attach appropriate Reports for the last three years)

19. Has an employee of your company suffered a work related fatal accident or "critical injury"
(R.R.O. 1990, Reg. 834)? Yes ☐ No ☐

20. Has an employee of a subcontractor suffered a fatal accident or "critical injury" while performing
work for your company? If you answered "yes" to either a) or b), please provide details for each
accident that occurred since 2001 on a separate sheet. Yes ☐ No ☐

21. Has your company ever been subject of a Workwell Audit? Yes ☐ No ☐

22. If yes, what was your score? _____

23. Do you have a policy for the termination of contracts of subcontractors who do not comply with
Occupational Health and Safety Act or Regulations or rules and policies of the contractor?
Yes ☐ No ☐

24. Do you have a substance abuse policy"? Yes ☐ No ☐

25. Do your employees read, write and understand English such that they can perform the tasks
safely. If no, provide a description of the plan to ensure they can safely perform the tasks.
Yes ☐ No ☐

26. Do you conduct medical examinations for pre-employment? Yes ☐ No ☐

Name _____ Title _____

END OF DIVISION 00

Section Number	Section Title
DIVISION 01 – GENERAL REQUIREMENTS	
01 11 00	Summary of Work
01 14 00	Work Restrictions
01 21 00	Allowances
01 25 00	Substitution Procedures
01 26 00	Contract Modification Procedures
01 29 00	Payment Procedures
01 31 19	Project Meetings
01 32 00	Construction Progress Documentation
01 33 00	Submittal Procedures
01 35 00	Special Procedures
01 40 00	Quality Requirements
01 51 00	Temporary Utilities
01 52 00	Construction Facilities
01 56 00	Temporary Barriers and Enclosures
01 57 00	Temporary Controls
01 61 00	Common Product Requirements
01 71 00	Examination and Preparation
01 73 00	Execution
01 73 29	Cutting and Patching
01 74 00	Cleaning and Waste Management
01 77 00	Closeout Procedures
01 78 00	Closeout Submittals
01 79 00	Demonstration and Training
01 91 13	General Commissioning Requirements

END OF SECTION

1.1 WORK OF THIS CONTRACT

- .1 *Work of this Contract* comprises the following:

Ventilation Upgrade of University Hall Building (UH #1).

- .2 Municipal Address: 1280 Main Street West, Hamilton, ON L8S 4K1
- .3 Legal Description: Plan No. 1475 Lot 55 and Lot 56

1.2 DIVISION OF WORK

- .1 Division of the *Work* among *Subcontractors* and *Suppliers* is solely *Contractor's* responsibility. *Consultant* and *Owner* assume no responsibility to act as an arbiter to establish subcontract limits between Sections or Divisions of the *Work*.

1.3 SPECIFICATIONS LANGUAGE AND STYLE

- .1 These specifications are written in the imperative mood and in streamlined form. The imperative language is directed to *Contractor*, unless stated otherwise.
- .2 Complete sentences by reading "shall", "*Contractor* shall", "shall be", and similar phrases by inference. Where a colon (:) is used within sentences and phrases, read the words "shall be" by inference.
- .3 Fulfill and perform all indicated requirements whether stated imperatively or otherwise.
- .4 When used in the context of a *Product*, read the word "provide" to mean "supply and install to result in a complete installation ready for its intended use".

1.4 CONTRACT DOCUMENTS FOR CONSTRUCTION PURPOSES

- .1 *Owner* will supply *Contractor* with a complete set of *Contract Documents* in electronic form before commencement of the *Work*. *Contractor* may print hard copies for construction purposes as required.

1.5 DOCUMENTS AT THE SITE

- .1 Keep the following documents at *Place of the Work*, stored securely and in good order and available to *Owner* and *Consultant* in hard copy and electronic form:
 - .1 Current *Contract Documents*, including *Drawings*, *Specifications* and addenda.
 - .2 *Change Orders*, *Change Directives*, and *Supplementary Instructions*.
 - .3 Reviewed *Shop Drawings*, *Product* data and samples.

- .4 Field test reports and records.
- .5 Construction progress schedule.
- .6 Meeting minutes.
- .7 Manufacturer's certifications.
- .8 Permits, inspection certificates, and other documents required by authorities having jurisdiction.
- .9 Current as-built drawings.
- .10 Material Safety Data Sheets (MSDS) for all controlled *Products*.

1.6 CONTRACTOR'S USE OF PREMISES

- .1 Except as otherwise specified, *Contractor* has unrestricted use of *Place of the Work* from time of *Contract* award until *Ready-for-Takeover*.
- .2 Confine *Construction Equipment*, *Temporary Work*, storage of *Products*, waste products and debris, and all other construction operations to limits required by laws, ordinances, permits, and *Contract Documents*, whichever is most restrictive. Do not unreasonably encumber *Place of the Work*.

END OF SECTION

1.1 RESTRICTIONS ON USE OF PREMISES

- .1 Limit use of premises for *Work*, for storage, and for access, to allow;
 - .1 *Owner* occupancy.
 - .2 Public usage.
- .2 Coordinate use of premises under direction of *Owner*.

1.2 WORK SEQUENCE

- .1 Schedule and construct *Work* in stages to accommodate *Owner's* continued use of premises during construction.
- .2 Schedule and construct *Work* in stages to provide for continuous building occupant usage. Do not close off public usage of facilities until use of one stage of *Work* will provide alternate usage.
- .3 This proposed sequencing of work is based on design assumptions and provided as a reference to assist with preliminary scheduling. Contractor to be responsible for coordinating and sequencing the work to best suit the stated project outcomes.
 - .1 Demolition of ductwork within the attic space.
 - .2 Demolition of existing HVAC lines within the attic and demolition of chilled water lines down to the basement.
 - .3 Installation of the new chilled water risers up to attic and throughout. Installation of the new glycol and steam lines. Chilled water should be activated immediately to allow for minimal downtime on cooling in upper floors.
 - .4 Installation of all ductwork north of space where the units will sit, including the plenum on the west side. Gravity ventilator doesn't need to be installed at this time, but the plenum should be installed up through the roof and the opening capped. Ductwork should be finished, including any dampers, and insulation where necessary.
 - .5 Install the glycol heat exchanger, glycol pumps, and condensate receiver. This will need to be done before units can be energized in the winter months.
 - .6 Lift unit into place and assemble. Begin final ductwork and piping connections to units. This will need to include the installation of the other plenum, up through the roof. Gravity hoods to be installed at this time. Complete installation of ductwork within attic up to ceiling below, including humidification array, dampers, insulation, etc.
 - .7 Begin installation of risers leaving attic space. Create or extend penetrations in floors within rooms or in shafts. Create penetrations in walls where ducts penetrate corridor. Install CFSD's in openings where appropriate.
 - .8 Install branch ductwork from risers to rooms as indicated. Repeat on each floor down through to basement, connecting to previous floor.
 - .9 Finish all ductwork with insulation and complete all wiring for CFSD's as required.
 - .10 Commission units and begin operation of systems.

- .4 Suggested breakout of work elements to assist in maintaining continuous occupancy of the building. Sequencing of the stages if adopted is the responsibility of the Contractor.

- .1 Stage 1. Piping stack from Basement to Attic
- .2 Stage 2. Basement work
- .3 Stage 3. HVAC – North ventilation (2 vertical chases)
- .4 Stage 4. HVAC – South ventilation (3 vertical chases)
- .5 Stage 5. Attic work
- .6 Stage 6. Ventilation of Classroom 122

1.3 OWNER OCCUPANCY

- .1 *Owner* will occupy premises during entire construction period.
- .2 Cooperate with *Owner* in scheduling operations to minimize disruptions and to facilitate *Owner* usage.
- .3 Areas of work will include services spaces, circulation corridors, administration offices and classrooms. Each use and has its specific time of operation. The building is considered to be occupied with normal business hours from 9:00a.m. to 4:00p.m. Throughout the school year opportunity will be available on a limited schedule for full access during daytime hours to classroom areas. This level of scheduling will need to be coordinated between the owner and the successful bidder.

1.4 RESTRICTED HOURS OF WORK IN OCCUPIED FACILITIES

- .1 *Work* may not be performed in occupied spaces during *Owner's* normal business hours. Coordinate with *Owner* for scheduling of work in specific areas. Room occupancies are intermittent in some areas and open to accommodation with due notice.
- .2 Allow for hours of work restrictions in construction progress schedule. Work time-shifted to be performed during evening hours from 3:00p.m. to 10:00p.m. should be considered as part of the typical workday.
- .3 Provide unit rates for after-hours work to be performed later than 10:00p.m., overnight and on weekends.

1.5 NOISY WORK RESTRICTIONS IN OCCUPIED FACILITIES

- .1 Schedule excessively noisy work to avoid disturbance to building occupants. Perform excessive noise generating work outside of *Owner's* business hours.
- .2 Use powder actuated devices only with *Consultant's* written permission.

1.6 MAINTAINING LIFE SAFETY SYSTEMS IN OCCUPIED FACILITIES

- .1 Maintain operational life safety systems and public access to exits in occupied areas during all stages of the *Work*.

- .2 Determine nature and exact locations of existing fire and smoke sensors prior to the commencement of the *Work*. Avoid direct or indirect jarring while working in adjacent areas and exercise caution to avoid triggering these devices.
- .3 Be responsible for costs incurred by *Owner* on account of false fire alarms activated as a result of the execution of the *Work* without adequate precautions.

END OF SECTION

1.1 CASH ALLOWANCES FOR SERVICES

- .1 Amount of each cash allowance includes:
 - .1 All costs related to the services, excluding *Value Added Taxes*.
 - .2 *Subcontractor's* and sub-*Subcontractor's* overheads and profits related to the cash allowance.
- .2 Amount of each cash allowance does not include *Contractor's* overhead and profit, and other related costs, which shall be included in the *Contract Price* and not in the cash allowance.
- .3 Allow the stipulated sum of **\$25,000.00** for the removal and/ or handling of all hazardous materials identified in the Hazardous Materials Specifications dated April 15th, 2024 and drawings dated March 24, 2024 (In Hazardous Materials Assessment Pre-Construction report dated April 24th, 2024), as provided by Pinchin Environmental.

1.2 EXPENDITURE OF CASH ALLOWANCES

- .1 *Owner*, through *Consultant*, will provide *Contractor* with documentation required to permit pricing of a cash allowance item.
- .2 *Owner*, through *Consultant*, may request *Contractor* to identify potential *Suppliers* or *Subcontractors*, as applicable, and to obtain at least three competitive prices for each cash allowance item.
- .3 *Owner*, through *Consultant*, may request the *Contractor* to disclose originals of all bids, quotations, and other price related information received from potential *Suppliers* or *Subcontractors*.
- .4 *Owner*, through *Consultant*, will determine by whom and for what amount each cash allowance item will be performed. Obtain *Owner's* prior written approval in the form of a *Change Order* before entering into a subcontract, amending an existing subcontract, or performing own forces work included in a cash allowance. Upon issuance of the *Change Order*, the *Contractor's* responsibilities for a cash allowance item shall be the same as for other work of the *Contract*.

END OF SECTION

1.1 DEFINITION

- .1 In this Section “Substitution” means a *Product*, a manufacturer, or both, not originally specified in *Contract Documents* by proprietary name but proposed for use by *Contractor* in place of a *Product*, a manufacturer, or both, specified by proprietary name.

1.2 SUBSTITUTION PROCEDURES

- .1 *Contractor* may propose a Substitution wherever a *Product* or manufacturer is specified by proprietary name(s), unless there is accompanying language indicating that Substitutions will not be considered.
- .2 *Contractor* may propose a Substitution wherever a *Product* or manufacturer is specified by proprietary name(s) and accompanied by language such as "or equal", "or approved equal", or other similar words. Do not construe such language as an invitation to unilaterally provide a Substitution without *Consultant's* prior acceptance in writing. Do not order or install any Substitution without a *Supplemental Instruction* or *Change Order*.
- .3 Provided a proposed Substitution submission includes all of the information specified in this Section under Submission Requirements For Proposed Substitutions, *Consultant* will promptly review and accept or reject the proposed Substitution.
- .4 *Consultant* may accept a Substitution if satisfied that:
 - .1 the proposed substitute *Product* is the same type as, is capable of performing the same functions as, interfaces with adjacent work the same as, and meets or exceeds the standard of quality, performance and, if applicable, appearance and maintenance considerations, of the specified Product,
 - .2 the proposed substitute manufacturer has capabilities comparable to the specified manufacturer, and
 - .3 the Substitution provides a benefit to *Owner*.
- .5 If *Contractor* fails to order a specified *Product* or order a *Product* by a specified manufacturer in adequate time to meet *Contractor's* construction schedule, *Consultant* will not consider that a valid reason to accept a Substitution.
- .6 If *Consultant* accepts a Substitution and subject to *Owner's* agreement, the change in the *Work* will be documented in the form of either a *Supplemental Instruction* or *Change Order* as specified in Section 01 26 00 – Contract Modification Procedures.
- .7 If a Substitution is accepted in the form of a *Supplemental Instruction* or *Change Order*, *Contractor* shall not revert to an originally specified *Product* or manufacturer without *Consultant's* prior written acceptance.

1.3 SUBMISSION REQUIREMENTS FOR PROPOSED SUBSTITUTIONS

- .1 Include with each proposed Substitution the following information:

- .1 Identification of the Substitution, including product name and manufacturer's name, address, telephone numbers, and web site.
- .2 Reason(s) for proposing the Substitution.
- .3 A statement verifying that the Substitution will not affect the *Contract Price* and *Contract Time* or, if applicable, the amount and extent of a proposed increase or decrease in *Contract Price* and *Contract Time* on account of the Substitution.
- .4 A statement verifying that the Substitution will not affect the performance [or warranty] of other parts of the *Work*.
- .5 Manufacturer's *Product* literature for the Substitution, including material descriptions, compliance with applicable codes and reference standards, performance and test data, compatibility with contiguous materials and systems, and environmental considerations.
- .6 Product samples as applicable.
- .7 A summarized comparison of the physical properties and performance characteristics of the specified *Product* and the Substitution, with any significant variations clearly highlighted.
- .8 Availability of maintenance services and sources of replacement materials and parts for the Substitution, as applicable, including associated costs and time frames.
- .9 If applicable, estimated life cycle cost savings resulting from the Substitution.
- .10 Details of other projects and applications where the Substitution has been used.
- .11 Identification of any consequential changes in the *Work* to accommodate the Substitution and any consequential effects on the performance of the *Work* as a whole. A later claim for an increase to the *Contract Price* or *Contract Time* for other changes in the *Work* attributable to the Substitution will not be considered.

END OF SECTION

1.1 SCHEDULE OF LABOUR RATES

- .1 Prior to the first application for payment, submit for the Consultant's review a schedule of labour rates for all trades and classifications of trades, such as journeymen, apprentices, and foremen that will be employed in the Work. Provide a breakdown of payroll burden component of labour rates.
- .2 Labour rates shall reflect the salaries, wages, and benefits paid to personnel in the direct employ of the Contractor, Subcontractors, and sub-Subcontractors, stated as hourly rates, that will be used when:
 - .1 preparing price quotations for Change Orders, and
 - .2 determining the cost of work attributable to Change Directives.
- .3 Labour rates stated in the schedule of labour rates shall be consistent with rates that will actually be paid, and payroll burden costs that will actually be incurred, in the normal performance of the Work, during regular working hours. Labour rates shall not include any additional overhead and profit component.
- .4 Where collective agreements apply, the labour rates shall not exceed those established by collective agreement.
- .5 Obtain the Owner's written acceptance of the schedule of labour rates before submitting the first Change Order quotation.
- .6 Accepted schedule of labour rates will be used solely for evaluating Change Order quotations and cost of performing work attributable to Change Directives.
- .7 The Contractor may request amendments to the accepted schedule of labour rates if changes in the labour rates that will actually be paid, or payroll burden cost that will actually be incurred, in the normal performance of the Work can be demonstrated. Obtain the Owner's written acceptance of such changes.

1.2 SCHEDULE OF EQUIPMENT RATES

- .1 Prior to the first application for payment, submit for the Consultant's review a schedule of equipment rates for Contractor owned Construction Equipment.
- .2 Equipment rates shall reflect the rates that will be used when:
 - .1 preparing price quotations for Change Orders, and
 - .2 determining the cost of work attributable to Change Directives.
- .3 Equipment rates stated in the schedule shall be consistent with local equipment rental market rates and shall not include any additional overhead and profit component.

- .4 Obtain the Owner's written acceptance of the schedule of equipment rates before submitting the first Change Order quotation.
- .5 Accepted schedule of equipment rates will be used solely for evaluating Change Order quotations and cost of performing work attributable to Change Directives.
- .6 The Contractor may request amendments to the accepted schedule of equipment rates if changes in local equipment rental market rates can be demonstrated. Obtain the Owner's written acceptance of such changes.

1.3 VALUATION OF CHANGES BASED ON AGREED UNIT PRICES

- .1 The Consultant may, at the outset of the Contract or at any other time, request the Contractor to submit unit prices anticipated to be required in valuing changes in the Work.
- .2 The Contractor shall submit such unit prices promptly upon request.
- .3 The unit prices shall be valid for a specified duration.
- .4 The unit prices shall exclude all fees for overhead and profit [and shall be subject to the percentage fees specified in this Section under Fees for Overhead and Profit – Change Orders].
- .5 The Consultant will evaluate the Contractor's quoted unit prices and, if accepted by the Owner in writing, the agreed unit prices shall be used to value subsequent proposed changes in the Work wherever they are applicable.

1.4 METHOD OF CONTRACT PRICE ADJUSTMENT - CHANGE ORDERS

- .1 Unless otherwise agreed, the adjustment of the Contract Price on account of a proposed change in the Work shall be based on a quotation for a fixed price increase or decrease to the Contract Price regardless of the Contractor's actual expenditures and savings.

1.5 CHANGE ORDER PROCEDURES

- .1 Upon issuance by the Consultant to the Contractor of a proposed change in the Work, and unless otherwise requested in the proposed change or unless otherwise agreed:
 - .1 Submit to the Consultant a fixed price quotation for the proposed change in the Work within 5 days after receipt of the proposed change in the Work.
 - .2 If requested in the proposed change, provide a detailed breakdown of the price quotation including the following to the extent applicable, with appropriate supporting documentation:
 - .1 Estimated labour costs, including hours and applicable hourly rates based on the accepted schedule of labour rates.

- .2 Estimated Product costs, including Supplier quotations, estimated quantities and unit prices.
 - .3 Estimated Construction Equipment costs.
 - .4 Enumeration of all other estimated costs included in the price quotation.
 - .5 Estimated credit amounts for labour and Products not required on account of the proposed change.
 - .6 Fees, not exceeding the applicable percentages for overhead and profit as specified in this Section.
 - .7 Where applicable, Subcontractor quotations, also including a detailed breakdown of all of the above.
-
- .3 Include in the quotation the increase or decrease to the Contract Time, if any, for the proposed change, stated in number of days.
 - .4 Include in the quotation the number of days for which the quotation is valid.
 - .5 The quotation will be evaluated by the Consultant and the Owner and, if accepted by the Owner, be documented in the form of a signed Change Order.

1.6 FEES FOR OVERHEAD AND PROFIT – CHANGE ORDERS

- .1 Where the Contractor's price quotation for a Change Order results in a net increase to the Contract Price, the Contractor's entitlement to a fee for overhead and profit in the quotation shall be as follows, as applicable:
 - .1 For work to be performed by the Contractor's own forces, 10 % of the Contractor's price quotation before the Contractor's fee is applied.
 - .2 For work to be performed by a Subcontractor, 5 % of the Subcontractor's price quotation including the Subcontractor's fee.
- .2 Where a Subcontractor's price quotation for a Change Order results in a net increase to the Subcontractor's contract price, the Subcontractor's entitlement to a fee for overhead and profit in the quotation shall be as follows, as applicable:
 - .1 For work to be performed by the Subcontractor's own forces, 10 % of the Subcontractor's price quotation before the Subcontractor's fee is applied.
 - .2 For work to be performed by a sub-Subcontractor, 5 % of the sub-Subcontractor's price quotation including the sub-Subcontractor's fee.
- .3 Where the Contractor's or a Subcontractor's price quotation for a Change Order results in a net decrease in price before adjustment for fees for overhead and profit, such a price quotation shall be for the net decrease without any adjustment for fees for overhead and profit.

1.7 METHOD OF CONTRACT PRICE ADJUSTMENT - CHANGE DIRECTIVES

- .1 Unless the Owner and the Contractor reach an earlier agreement on the adjustment to the Contract Price by means of a Change Order that cancels the Change Directive, the adjustment in the Contract Price for change carried out by way of a Change Directive shall be determined as specified in the General Conditions of Contract after the change in the Work is completed.

1.8 CHANGE DIRECTIVE PROCEDURES

- .1 If a Change Directive is issued for a change in the Work for which a proposed change was previously issued, but no Change Order has yet been signed, the Change Directive shall cancel the proposed change and any Contractor quotations related to that change in the Work.
- .2 When proceeding with a change in the Work under a Change Directive, keep accurate records of daily time sheets for labour and Construction Equipment, and invoices for Product and Construction Equipment costs. Submit such records to the Consultant [daily] [weekly], until the Change Order superseding the Change Directive is issued.

1.9 FEES FOR OVERHEAD AND PROFIT – CHANGE DIRECTIVES

- .1 The Contractor's entitlement to a fee for overhead and profit on the Contractor's expenditures and savings attributable to a Change Directive shall be as follows, as applicable:
 - .1 For work performed by the Contractor's own forces, 10 % of the Contractor's net increase in costs.
 - .2 For work performed by a Subcontractor, 5 % of the sum of the Subcontractor's net increase in costs plus the Subcontractor's fee.
- .2 A Subcontractor's entitlement to a fee for overhead and profit on the Subcontractor's expenditures and savings attributable to a Change Directive shall be as follows, as applicable:
 - .1 For work performed by the Subcontractor's own forces, 10 % of the Subcontractor's net increase in costs.
 - .2 For work performed by a Sub-subcontractor, 5 % of the sum of the Sub-subcontractor's net increase in costs plus the Sub-subcontractor's fee.
- .4 Where a Change Directive results in net savings on account of work not required to be performed and a net decrease in the Contractor's or Subcontractor's cost, the net savings to the Contractor or Subcontractor shall be calculated without any adjustment for fees for overhead and profit.
- .5 When a Change Directive is ultimately recorded as a Change Order, there shall be no additional entitlement to fees for overhead and profit beyond those specified in this article.

1.10 SUPPLEMENTAL INSTRUCTIONS

- .1 The Consultant may issue Supplemental Instructions to provide clarifications to the Contract Documents, provide additional information, or make minor variations in the Work not involving adjustment in the Contract Price or Contract Time.
- .2 If the Contractor considers a Supplemental Instruction to require an adjustment in Contract Price or Contract Time, the Contractor shall promptly notify the Consultant and the Owner in writing and shall not proceed with any work related to the Supplemental Instruction pending receipt of a Change Order, a Change Directive, or, in accordance with the dispute resolution provisions of the General Conditions of Contract, a Notice in Writing of a dispute and instructions to proceed.

END OF SECTION

1.1 SCHEDULE OF VALUES

- .1 Prior to the first application for payment, submit for *Consultant's* review an initial schedule of values. Modify the initial schedule of values if and as requested by *Consultant*. Obtain *Consultant's* written acceptance of the initial schedule of values prior to the first application for payment.
- .2 Together with the first and all subsequent applications for payment, submit updated versions of the schedule of values to indicate the values, to the date of application for payment, of work performed and *Products* delivered to *Place of the Work*.
- .3 Provide the schedule of values in an electronic spreadsheet format that provides for inclusion of the following information:
 - .1 Identifying information including title and location of the *Work*, name of *Contractor*, number and date of application for payment, and period covered by the application for payment.
 - .2 A work breakdown structure that is sufficiently detailed and comprehensive to facilitate *Consultant's* evaluation of applications for payment at an appropriate level of detail.
 - .3 Provisions for approved *Change Orders* [allowances,] [unit price work] [and] [assignable contracts] so that the breakdown amounts indicated in the schedule of values aggregate to the current total *Contract Price*. Also provide for indicating the estimated value of *Change Directives* within the schedule of values, separately from the current total *Contract Price*.
 - .4 For each item in the work breakdown structure, provide as a minimum the following information, under headings as indicated:
 - .1 Breakdown Amount: A dollar amount, including an appropriate pro rata portion of *Contractor's* overhead and profit.
 - .2 Performed to Date: The value of *Work* performed and *Products* delivered to *Place of the Work* up to the date of the application for payment, stated as a percentage of the *Contract Price* and in dollars.
 - .3 Previously Performed: The value of *Work* performed and *Products* delivered to the *Place of the Work* for which payment has been previously certified, stated in dollars.
 - .4 Current Period: The value of *Work* performed and *Products* delivered to *Place of the Work* for which *Contractor* is currently applying for payment, stated in dollars.
 - .5 Balance to Complete: The value of *Work* not yet performed and *Products* not yet delivered to *Place of the Work*, stated in dollars.

1.2 CASH FLOW PROJECTION

- .1 Prior to the first application for payment submit, for *Consultant's* review, a forecast of approximate monthly progress payments for each month of the *Contract Time*.
- .2 Submit revised cash flow forecasts [when required due to significant changes in rate of progress of the *Work* or significant changes in the *Contract Price*] [monthly] [when requested by *Consultant*].

1.3 WORKERS' COMPENSATION CLEARANCE

- .1 Submit proof of workers' compensation clearance with each application for payment.

1.4 STATUTORY DECLARATIONS

- .1 Submit a statutory declaration in the form of CCDC 9A – Statutory Declaration of Progress Payment Distribution by *Contractor* with each application for payment except the first.

1.5 RELEASE OF HOLDBACK

- .1 60 days following dated certificate of substantial performance.

END OF SECTION

1.1 CONSTRUCTION START-UP MEETING

- .1 Promptly after *Contract* award, *Consultant* and *Owner* shall establish the time and location of a construction start-up meeting to review and discuss administrative procedures and responsibilities. *Consultant* will. notify *Contractor* at least 5 *Working Days* before the meeting.
- .2 Senior representatives of *Owner*, *Consultant*, subconsultants, and *Contractor*, including *Contractor's* project manager and site superintendent, and major *Subcontractors*, shall be in attendance.
- .3 *Consultant's* representative will chair the meeting and record and distribute the minutes.
- .4 Agenda will include following:
 - .1 Appointment of official representatives of *Owner*, *Contractor*, *Subcontractors*, *Consultant*, and subconsultants.
 - .2 *Project* communications.
 - .3 *Contract Documents* for construction purposes.
 - .4 Documents at the site.
 - .5 *Contractor's* use of premises.
 - .6 *Owner-supplied Products*.
 - .7 [Assignable contracts.]
 - .8 Work restrictions.
 - .9 [Cash allowances.]
 - .10 [Substitution procedures.]
 - .11 *Contract* modification procedures.
 - .12 Payment procedures.
 - .13 Construction progress meetings.
 - .14 Construction progress schedule, including long lead time items.
 - .15 Submittals schedule and procedures.
 - .16 [Special procedures.]
 - .17 Quality requirements, including testing and inspection procedures.
 - .18 *Contractor's* mobilization.
 - .19 Temporary utilities.
 - .20 Existing utility services.
 - .21 Construction facilities.
 - .22 Temporary barriers and enclosures.
 - .23 Temporary controls.
 - .24 Field engineering and layout of work.
 - .25 Site safety.
 - .26 Site security.
 - .27 Cleaning and waste management.
 - .28 Closeout procedures and submittals.
 - .29 [Commissioning].
 - .30 Other items.

1.2 CONSTRUCTION PROGRESS MEETINGS

- .1 Schedule regular bi-weekly construction progress meetings for the duration of the *Work*. *Contractor* shall prepare meeting agendas, chair the meetings, and record and distribute the minutes.
- .2 Arrange for and provide physical space for meetings.
- .3 *Contractor* shall record in the meeting minutes significant decisions and identify action items and action dates by attendees or the parties they represent.
- .4 *Contractor* shall distribute copies of minutes within three Working Days after each meeting to meeting attendees and any affected parties who may not be in attendance.
- .5 Ensure that *Subcontractors* attend as and when appropriate to the progress of the *Work*.
- .6 Agenda for each meeting shall include the following, as a minimum:
 - .1 [Approval of minutes of previous meeting.]
 - .2 Work progress since previous meeting.
 - .3 Field observations, including any problems, difficulties, or concerns.
 - .4 Construction progress schedule.
 - .5 Submittals schedule.
 - .6 Proposed changes in the *Work*.
 - .7 Requests for information.
 - .8 Site safety issues.
 - .9 Other business.

END OF SECTION

1.1 SUMMARY

- .1 This Section specifies *Contractor's* responsibilities for preparation and submission of schedules and other documentation related to tracking construction progress.
- .2 The purpose of submitting progress schedules is to:
 - .1 inform *Owner* and *Consultant* of actual progress versus planned progress, and
 - .2 provide assurance that scheduling issues are being proactively identified and addressed in a timely manner, and that planned progress is being maintained as closely as possible.

1.2 CONSTRUCTION PROGRESS SCHEDULE

- .1 Format and Content:
 - .1 Prepare schedule in the form of a Critical Path Method (CPM) Gantt chart using appropriate scheduling software
 - .2 Provide a work breakdown structure identifying key activities, work packages, and major milestones, including long delivery *Products*, inspection and testing activities, , *Owner* decisions for cash allowances, shutdown or closure activities,] ,demonstration and training activities, and similar items, at a sufficient level of detail to effectively manage construction progress.
 - .3 Indicate milestone date[s] for *Ready-for-Takeover* and *Substantial Performance of the Work*.
- .2 Submission:
 - .1 Submit initial schedule to *Owner* and *Consultant* within 10 *Working Days* after *Contract* award.
 - .2 Submit schedule via e-mail as .pdf files.
 - .3 *Consultant* will review format and content of initial schedule and request necessary changes, if any, within 5 *Working Days* after receipt.
 - .4 If changes are required, resubmit finalized initial schedule within 5 *Working Days* after return of review copy.
 - .5 Submit updated progress schedule monthly to *Owner* and *Consultant*, indicating actual and projected start and finish dates with report date line and progress, activity relationships, critical path, float and baseline comparison to current progress.

- .6 Include a written report with each updated progress schedule. Indicate work status to date comparing baseline to actual progress, current forecasts, identifying problem areas, anticipated delays and impact on schedule, and planned corrective actions.

1.3 SUBMITTALS SCHEDULE

.1 Format and Content:

- .1 Prepare schedule identifying all required *Shop Drawing*, *Product* data, and sample submissions, including samples required for testing and including those for *Owner* supplied *Products*.
- .2 Prepare schedule in electronic format.
- .3 Provide a separate line for each required submittal, organized by *Specifications* section names and numbers, and further broken down by individual *Products* and systems as required.
- .4 For each required submittal, show planned earliest date for initial submittal, earliest date for return of reviewed submittal by *Consultant* and latest date for return of reviewed submittal without causing delay.
- .5 Allow time in schedule for resubmission of submittals, should resubmission be necessary.

.2 Submission:

- .1 Submit initial schedule to *Consultant* within 15 *Working Days* after *Contract* award.
- .2 Submit schedule via e-mail as .pdf files.
- .3 Consultant will review format and content of initial schedule and request necessary changes, if any, within 5 *Working Days* after receipt.
- .4 If changes are required, resubmit finalized schedule within 510 *Working Days* after return of review copy.
- .5 Submit updated submittals schedule monthly to *Owner* and *Consultant*..

1.4 SCHEDULE MANAGEMENT

- .1 A schedule submitted as specified and accepted by *Consultant* shall become the baseline schedule and shall be used as the baseline for updates.
- .2 At each regular progress meeting, review and discuss current construction progress and submittals schedules with *Consultant* and *Owner*, including activities that are behind

schedule and planned measures to regain schedule slippage in key areas on or near the critical path.

- .3 Activities considered behind schedule are those with start or completion dates later than the dates shown on the baseline schedule.

1.5 RECORDING ACTUAL SITE CONDITIONS ON AS-BUILT DRAWINGS.

- .1 Obtain from *Consultant* an electronic copy of the construction *Drawings* for the purpose of creating as-built drawings. Record information in electronic form, clearly identifying as-built deviations from the originally obtained construction *Drawings*.
- .2 Clearly label each drawing as “AS-BUILT DRAWING”. Record information concurrently with construction progress. Do not conceal *Work* until required information is recorded.
- .3 Record actual construction including:
 - .1 Measured depths of elements of foundation in relation to finish first floor datum.
 - .2 Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - .3 Measured locations of pipes, ducts, conduits, outlets, fixtures, access panels, and appurtenances, referenced to visible and accessible features of construction.
 - .4 Field changes of dimension and detail.
 - .5 Changes made by *Change Orders* and *Supplemental Instructions*
 - .6 References to *Shop Drawings*, where *Shop Drawings* show more detail.
- .4 Do not use as-built drawings for construction purposes.

1.6 PROGRESS PHOTOGRAPHS

- .1 Arrange for periodic digital photography to document and provide a photographic record of the progress of the *Work*.
- .2 Identify each photograph by project name and date taken.
- .3 Submission: Submit .jpg format files in standard resolution via e-mail monthly at completion of framing and services before concealment.
- .4 Do not use progress or any other *Project* photographs for promotional purposes without *Owner's* written consent.

END OF SECTION

1.1 ADMINISTRATIVE

- .1 Submit specified submittals to *Consultant* for review. Submit with reasonable promptness and in orderly sequence so as to not cause delay in the *Work*. Failure to submit in ample time is not considered sufficient reason for an extension of *Contract Time* or for *Product* substitutions or other deviations from the *Drawings* and *Specifications*.
- .2 Where required by authorities having jurisdiction, provide submittals to such authorities for review and approval.
- .3 Do not proceed with *Work* affected by a submittal until review is complete.
- .4 Present *Shop Drawings*, *Product* data, and samples in [SI metric] [imperial] units. Where items or information is not produced in [SI Metric] [imperial] units, converted values are acceptable.
- .5 Review submittals, provide verified field measurements where applicable, and affix *Contractor's* review stamp prior to submission to *Consultant*. *Contractor's* review stamp represents that necessary requirements have been determined and verified, and that the submittal has been checked and coordinated with requirements of the *Work* and *Contract Documents*.
- .6 Verify field measurements and that affected adjacent work is coordinated.
- .7 Submittals not meeting specified requirements will be returned with comments.
- .8 Reproduction of construction *Drawings* to serve as background for *Shop Drawings* is [not] permitted. [If construction *Drawings* are used for this purpose, remove references to *Consultant*.]
- .9 Do not propose Substitutions or deviations from *Contract Documents* via *Shop Drawing*, *Product* data and sample submittals.

1.2 SHOP DRAWINGS AND PRODUCT DATA

- .1 Indicate *Products*, methods of construction, and attachment or anchorage, erection diagrams, connections, explanatory notes and other information necessary for completion of the *Work*.
- .2 Where *Products* attach or connect to other *Products*, indicate that such items have been coordinated, regardless of Section under which adjacent items will be supplied and installed. Indicate cross-references to *Drawings*, *Specifications* and other already reviewed *Shop Drawings*.
- .3 Accompany submittals with a transmittal information including:
 - .1 Date.
 - .2 *Project* title and number.
 - .3 *Contractor's* name and address.

- .4 Identification of each submittal item and quantity.
- .5 Other pertinent data.
- .4 *Shop Drawing* submittals shall include:
 - .1 Date and revision dates.
 - .2 *Project* title and number.
 - .3 Name and address of:
 - .1 *Subcontractor*.
 - .2 *Supplier*.
 - .3 *Manufacturer*.
 - .4 *Contractor's* stamp, date, and signature of *Contractor's* authorized representative responsible for *Shop Drawing* review, indicating that each *Shop Drawing* has been reviewed for compliance with *Contract Documents* and, where applicable, that field measurements have been verified.
 - .5 Details of appropriate portions of the *Work* as applicable:
 - .1 Fabrication.
 - .2 Layout, showing dimensions, including identified field dimensions, and clearances.
 - .3 Setting or erection details.
 - .4 Capacities.
 - .5 Performance characteristics.
 - .6 Standards.
 - .7 Operating weight.
 - .8 Wiring diagrams.
 - .9 Single line and schematic diagrams.
 - .10 Relationships to other parts of the *Work*.
- .5 *Product* data submittals shall include material safety data sheets (MSDS) for all controlled Products.
- .6 Submit electronic copy of *Shop Drawings* where specified in the technical *Specifications*.
- .7 Submit electronic copy of Product data sheets or brochures where specified in the technical *Specifications*.
- .8 Where a submittal includes information not applicable to the *Work*, clearly identify applicable information and strike out non-applicable information.
- .9 Supplement standard information to include details applicable to *Project*.
- .10 Allow 5 *Working Days* for *Consultant's* review of each submittal and incorporate in submittals schedule specified in Section 01 32 00 – Construction Progress Documentation. Allow additional 3 *Working Days* where sub-*Consultant* [or commissioning agent review is required.
- .11 If upon *Consultant's* review no errors or omissions are discovered, or if only minor corrections are required as indicated, submittal will be returned and fabrication or installation of *Work* may proceed.

- .12 If upon *Consultant's* review significant errors or omissions are discovered, a so noted copy will be returned for correction and resubmission. Do not commence fabrication or installation.
- .13 *Consultant's* notations on submittals are intended to ensure compliance with *Contract Documents* and are not intended to constitute a change in the *Work* requiring change to the *Contract Price* or *Contract Time*. If *Contractor* considers any *Consultant's* notation to be a change in the *Work*, promptly notify *Consultant* in writing before proceeding with the *Work*.
- .14 Resubmit corrected submittals through same procedure indicated above, before any fabrication or installation of the *Work* proceeds. When resubmitting, notify *Consultant* in writing of any revisions other than those requested by *Consultant*.

1.3 SAMPLES

- .1 Submit samples for *Consultant's* review in duplicate where specified in the technical *Specifications*. Label samples as to origin, *Project* name, and intended use.
- .2 Deliver samples prepaid to *Consultant's* [business address] [site office].
- .3 Notify *Consultant* in writing of any deviations in samples from requirements of *Contract Documents*.
- .4 Where a required colour, pattern or texture has not been specified, submit full range of available *Products* meeting other specified requirements.
- .5 *Consultant* selection from samples is not intended to change the *Contract Price* or *Contract Time*. If a selection would affect the *Contract Price* or *Contract Time*, notify *Consultant* in writing prior to proceeding with the *Work*.
- .6 Resubmit samples as required by *Consultant* to comply with *Contract Documents*.
- .7 Reviewed and accepted samples will establish the standard against which installed *Work* will be reviewed.

END OF SECTION

1.1 HAZARDOUS BUILDING MATERIAL HANDLING

- .1 Removal and/ or handling of all hazardous material shall be as per instructions provided in the Hazardous Material Assessment (Pre-Construction) report and drawings in Appendix 1, dated April 24th, 2024, and Hazardous Materials and Abatement Specifications dated April 15th, 2024 as provide by Pinchin Environmental.

1.2 HERITAGE BUILDING DESIGNATION

- .1 University Hall Building is one of 6 heritage buildings on McMaster University Campus designated to be of Cultural Heritage Value with restrictions under City of Hamilton By-Law No. 08-002.
- .2 The original architectural materials and features of the facades and roofs, including the stone ashlar and brick masonry walls, cut stone, door/window surrounds, mullions and tracery, stone entrance steps, carved stone ornamentation, wrought-iron are to remain intact.
- .3 Also important to the preservation of University Hall are the interior spaces identified as Convocation Hall and all of their original architectural finishes and features.

END OF SECTION

1.1 REFERENCE STANDARDS

- .1 “Reference standards” means consensus standards, trade association standards, guides, and other publications expressly referenced in *Contract Documents*.
- .2 Where an edition or version date is not specified, referenced standards shall be deemed to be the latest edition or revision issued by the publisher at the time of bid closing. However if a particular edition or revision date of a specified standard is referenced in an applicable code or other regulatory requirement, the regulatory referenced edition or version shall apply.
- .3 Reference standards establish minimum requirements. If *Contract Documents* call for requirements that differ from a referenced standard, the more stringent requirements shall govern.
- .4 If compliance with two or more reference standards is specified and the standards establish different or conflicting requirements, comply with the most stringent requirement. Refer uncertainties to *Consultant* for clarification.
- .5 Within the *Specifications*, reference may be made to the following standards writing, testing, or certification organizations by their acronyms or initialisms:

- .1 AA - Aluminum Association
- .2 ACI - American Concrete Institute
- .3 AISC - American Institute of Steel Construction
- .4 ANSI - American National Standards Institute
- .5 ASME - American Society of Mechanical Engineers
- .6 ASTM - American Society for Testing and Materials
- .7 AWMAC - Architectural Woodwork Manufacturers Association of Canada
- .8 AWWA - American Wire Producers Association
- .9 CaGBC - Canadian Green Building Council
- .10 CGSB - Canadian General Standards Board
- .11 CISC - Canadian Institute of Steel Construction
- .12 CPCI - Canadian Prestressed Concrete Institute
- .13 CSA - Canadian Standards Association
- .14 CSSBI - Canadian Sheet Steel Building Institute
- .15 CWB – Canadian Welding Bureau
- .16 ICEA - Insulated Cable Engineers Association
- .17 IEEE - Institute of Electrical and Electronics Engineers
- .18 IGMAC – Insulating Glass Manufacturers Association of Canada
- .19 LEED - Leadership in Energy and Environmental Design
- .20 MPP – Master Painters Institute
- .21 MSS - Manufacturers Standardization Society of the Valve and Fittings Industry
- .22 NAAMM - National Association of Architectural Metal Manufacturers
- .23 NEMA - National Electrical Manufacturers Association
- .24 NFPA - National Fire Protection Association
- .25 NHLA - National Hardwood Lumber Association
- .26 NLGA - National Lumber Grades Authority
- .27 SSPC – The Society for Protective Coatings
- .28 TTMAC - Terrazzo, Tile and Marble Association of Canada
- .29 ULC - Underwriters' Laboratories of Canada

1.2 INDEPENDENT INSPECTION AND TESTING AGENCIES

- .1 Except as otherwise specified, *Owner* will retain and pay for independent inspection and testing agencies to inspect, test, or perform other quality control reviews of parts of the *Work*.
- .2 Retain and pay for inspection and testing that is for *Contractor's* own quality control or is required by regulatory requirements.
- .
- .3 Employment of inspection and testing agencies by *Contractor* or *Owner* does not relieve *Contractor* from responsibility to perform the *Work* in accordance with *Contract Documents*.
- .4 Allow and arrange for inspection and testing agencies to have access to the *Work*, including access to off site manufacturing and fabrication plants.

- .5 For inspection and testing required by *Contract Documents* or by authorities having jurisdiction, provide *Consultant* and inspection and testing agencies with timely notification in advance of required inspection and testing.
- .6 Submit test samples required for testing [in accordance with submittals schedule specified in Section 01 32 00 – Construction Progress Documentation].
- .7 Provide labour, *Construction Equipment* and temporary facilities to obtain and handle test samples on site.

1.3 INSPECTION AND TESTING AGENCY REPORTS

- .1 For inspection and testing required by *Contract Documents* or by regulatory requirements, and performed by *Contractor* retained inspection and testing agencies, submit to *Consultant* and *Owner* copies of reports. Submit within 5 days after completion of inspection and testing.
- .2 For inspection and testing performed by *Owner* retained inspection and testing agencies, copies of inspection and testing agency reports will be provided to *Contractor*.

END OF SECTION

1.1 EXISTING BUILDING HEATING, VENTILATION, POWER, AND LIGHTING

- .1 Existing building heating, ventilation, power, and lighting may be relied upon and used during construction [except during hours or days when the building is not operational].
- .2 Coordinate and make arrangements with the building operator [and pay any costs required] for provision of these services during hours or days when the building is not operational.

END OF SECTION

1.1 CONSTRUCTION FACILITIES - GENERAL

- .1 Provide temporary construction facilities as necessary for performance of the *Work* and in compliance with applicable regulatory requirements.
- .2 Maintain temporary construction facilities in good condition for the duration of the *Work*.
- .3 Remove temporary construction facilities from *Place of the Work* when no longer required.

1.2 CONSTRUCTION PARKING

- .1 Parking will not be permitted at *Place of the Work*.

1.3 VEHICULAR ACCESS

- .1 Provide and maintain adequate access to *Place of the Work*.
- .2 Existing roads at *Place of the Work* may be used for access to *Place of the Work*, provided *Contractor* assumes responsibility for any damage caused by construction traffic, and prevents or promptly cleans up any mud tracking or material spillage.

1.4 SITE OFFICES

- .1 Provide a temperature controlled and ventilated office, with suitable lighting, of sufficient size to accommodate site meetings and furnished with drawing laydown table.
- .1 .

1.5 SANITARY FACILITIES

- .1 Provide sanitary facilities for workers.
- .2 Do not use permanent washroom facilities during construction.
- .3 Keep sanitary facilities clean and fully stocked with the necessary supplies.

1.6 FIRE PROTECTION

- .1 Provide and maintain temporary fire protection systems and equipment during construction.
- .1 .

1.7 USE OF EXISTING ELEVATORS

- .1 Designated elevators may be used by construction personnel and for transporting Products. Co-ordinate use with Owner.

- .2 Provide protective coverings for finish surfaces of cars and entrances. Assume responsibility for and make good any damage to existing elevators caused by construction personnel.

1.8 PROJECT IDENTIFICATION SIGNS

- .1 Provide one *Project* identification sign. with graphics and text. .Graphics and text shall indicate name of *Project*, name . of *Owner*, .*Consultant*, and *Contractor*.
- .2 .
- .3 Erect sign within three weeks of *Contract* award in location directed or approved by *Consultant*.
- .4 No other signs or advertisements, other than safety, warning, or directional signs, are permitted without *Consultant*'s prior approval.

END OF SECTION

1.1 BARRIERS AND ENCLOSURES - GENERAL

- .1 Provide temporary barriers and enclosures necessary to protect the public and building occupants and to secure *Place of the Work* during performance of the *Work*.
- .2 Comply with applicable regulatory requirements.
- .3 Maintain temporary barriers and enclosures in good condition for the duration of the *Work*.
- .4 Remove temporary barriers and enclosures from *Place of the Work* when no longer required.

1.2 FENCING

- .1 Erect temporary security and safety site fencing of type and height determined by *Contractor*, subject to applicable regulatory requirements.

1.3 WEATHER ENCLOSURES

- .1 Provide weather tight enclosures to unfinished door and window openings, tops of shafts and other openings in floors and roofs.
- .1 Provide weather enclosures to protect floor areas where walls are not finished and to enclose work areas that require temporary heating.
- .2 Design weather enclosures to withstand wind pressure and snow loading requirements.

1.4 DUST TIGHT [SCREENS] [PARTITIONS]

- .1 Provide dust tight polyethylene screens and/ or wood stud and plywood partitions to localize interior building areas from dust and noise generating activities.
- .2 Erect, maintain, and relocate screens/partitions as required to facilitate construction operations and *Owner's* operational requirements.

1.5 FIRE ROUTES

- .1 Maintain fire access routes, including overhead clearances, for use by emergency response vehicles.

1.6 PROTECTION OF BUILDING FINISHES

- .1 Provide necessary temporary barriers and enclosures to protect existing and completed or partially completed finished surfaces from damage during performance of the *Work*.

END OF SECTION

1.1 TEMPORARY CONTROLS - GENERAL

- .1 Provide temporary controls as necessary for performance of the *Work* and in compliance with applicable regulatory requirements.
- .2 Maintain temporary controls in good condition for the duration of the *Work*.
- .3 Remove temporary controls and *Construction Equipment* used to provide temporary controls from *Place of the Work* when no longer required.

1.2 DUST AND PARTICULATE CONTROL

- .1 Implement and maintain dust and particulate control measures in accordance with applicable regulatory requirements.
- .2 Execute *Work* by methods that minimize dust from construction operations and spreading of dust on site or to adjacent properties.
- .3 Provide temporary enclosures to prevent extraneous materials resulting from sandblasting or similar operations from contaminating air beyond immediate work area.
- .4 Cover or wet down dry materials and rubbish to prevent blowing dust and debris. .
- .5 Use appropriate covers on trucks hauling fine, dusty, or loose materials.

1.3 POLLUTION CONTROL

- .1 Take measures to prevent contamination of soil, water, and atmosphere through uncontrolled discharge of noxious or toxic substances and other pollutants, potentially causing environmental damage.
- .2 Be prepared, by maintaining appropriate materials, equipment, and trained personnel on site, to intercept, clean up, and dispose of spills or releases that may occur. Promptly report spills and releases that may occur to:
 - .1 authority having jurisdiction,
 - .2 person causing or having control of pollution source, if known, and
 - .3 *Owner and Consultant*.
- .4 Contact manufacturer of pollutant, if known and applicable, to obtain material safety data sheets (MSDS) and ascertain hazards involved and precautions and measures required in cleanup or mitigating actions.
- .5 Take immediate action to contain and mitigate harmful effects of the spill or release.

END OF SECTION

1.1 GENERAL

- .1 Provide *Products* that are not damaged or defective, and suitable for purpose intended, subject to specified requirements. If requested by *Consultant*, furnish evidence as to type, source and quality of *Products* provided.
- .2 Unless otherwise specified, maintain uniformity of manufacture for like items throughout.
- .3 [Permanent manufacturer's markings, labels, trademarks, and nameplates on *Products* are not acceptable in prominent locations, except where required by regulatory requirements or for operating instructions, or when located in mechanical or electrical rooms.]

1.2 PRODUCT OPTIONS

- .1 Subject to the provisions of Section 01 25 00 –Substitution Procedures:
 - .1 Wherever a *Product* or manufacturer is specified by a single proprietary name, provide the named *Product* only.
 - .2 Wherever more than one *Product* or manufacturer is specified by proprietary name for a single application, provide any one of the named *Products*.
- .2 Wherever a *Product* is specified by reference to a standard only, provide any *Product* that meets or exceeds the specified standard. If requested by *Consultant*, submit information verifying that the proposed *Product* meets or exceeds the specified standard.
- .3 Wherever a *Product* is specified by descriptive or performance requirements only, provide any *Product* that meets or exceeds the specified requirements. If requested by *Consultant*, submit information verifying that the proposed *Product* meets or exceeds the specified requirements.

1.3 PRODUCT AVAILABILITY AND DELIVERY TIMES

- .1 Promptly upon Contract award and periodically during construction, review and confirm *Product* availability and delivery times. Order *Products* in sufficient time to meet the construction progress schedule and the *Contract Time*.
- .2 If a specified *Product* is no longer available, promptly notify *Consultant*. *Consultant* will take action as required.
- .3 If delivery delays are foreseeable, for any reason, promptly notify *Consultant*.
 - .1 If a delivery delay is beyond *Contractor's* control, *Consultant* will provide direction.
 - .2 If a delivery delay is caused by something that was or is within *Contractor's* control, *Contractor* shall propose actions to maintain the construction progress schedule for *Consultant's* review and acceptance.

1.4 STORAGE, HANDLING, AND PROTECTION

- .1 Store, handle, and protect *Products* during transportation to *Place of the Work* and before, during, and after installation in a manner to prevent damage, adulteration, deterioration and soiling.
- .2 Comply with manufacturer's instructions for storage, handling and protection.
- .3 Store packaged or bundled *Products* in original and undamaged condition with manufacturer's seals and labels intact. Do not remove from packaging or bundling until required in *Work*.
- .4 Comply with the requirements of the workplace hazardous materials information system (WHMIS) regarding use, handling, storage, and disposal of hazardous materials, including requirements for labeling and the provision of material safety data sheets (MSDS).
- .5 Store *Products* subject to damage from weather in weatherproof enclosures.
- .6 Store sheet *Products* on flat, solid, supports and keep clear of ground. Slope to shed moisture.
- .7 Remove and replace damaged *Products*.

END OF SECTION

1.1 EXISTING UTILITIES AND STRUCTURES

- .1 Before commencing excavation, drilling or other earthwork, establish or confirm location and extent of all existing underground utilities and structures in work area.
- .2 Promptly notify *Consultant* if underground utilities, structures, or their locations differ from those indicated in *Contract Documents* or in available project information. *Consultant* will provide appropriate direction.
- .3 Record locations of maintained, re-routed and abandoned utility lines.

1.2 VERIFICATION OF EXISTING CONDITIONS

- .1 Where work specified in any Section is dependent on the work of another Section or Sections having been properly completed, verify that work is complete and in a condition suitable to receive the subsequent work. Commencement of work of a Section that is dependent on the work of another Section or Sections having been properly completed, means acceptance of the existing conditions.
- .2 Verify that ambient conditions are suitable before commencing the work of any Section and will remain suitable for as long as required for proper setting, curing, or drying of *Products* used.
- .3 Ensure that substrate surfaces are clean, dimensionally stable, cured and free of contaminants.
- .4 Notify *Consultant* in writing of unacceptable conditions.

END OF SECTION

1.1 SUMMARY

- .1 Except where otherwise specified in technical *Specifications* or otherwise indicated on *Drawings*, comply with requirements of this Section.

1.2 MANUFACTURER'S INSTRUCTIONS

- .1 Install, erect, or apply *Products* in strict accordance with manufacturer's instructions.
- .2 Notify *Consultant*, in writing, of conflicts between *Contract Documents* and manufacturer's instructions where, in *Contractor's* opinion, conformance with *Contract Documents* instead of the manufacturer's instructions may be detrimental to the *Work* or may jeopardize the manufacturer's warranty.
- .3 Do not rely on labels or enclosures provided with *Products*. Obtain written instructions directly from manufacturers.
- .4 Provide manufacturer's representatives with access to the *Work* at all times. Render assistance and facilities for such access so that manufacturer's representatives may properly perform their responsibilities.

1.3 CONCEALMENT

- .1 Conceal pipes, ducts, and wiring in floors, walls and ceilings in finished areas:
 - .1 after review by *Consultant* and authority having jurisdiction, and
 - .2 where locations differ from those shown on *Drawings*, after recording actual locations on as-built drawings.
- .2 Provide incidental furring or other enclosures as required.
- .3 Notify *Consultant* in writing of interferences before installation.

1.4 FASTENINGS - GENERAL

- .1 Provide metal fastenings and accessories in same texture, colour and finish as adjacent materials.
- .2 Prevent electrolytic action and corrosion between dissimilar metals and materials by using suitable non-metallic strips, washers, sleeves, or other permanent separators to avoid direct contact.
- .3 Use non-corrosive fasteners and anchors for securing exterior work [and in spaces where high humidity levels are anticipated].
- .4 Space anchors within individual load limit or shear capacity and ensure they provide positive permanent anchorage.
- .5 Keep exposed fastenings to a minimum, space evenly and install neatly.

- .6 Do not use fastenings or fastening methods that may cause spalling or cracking of material to which anchorage is made.

1.5 FASTENINGS - EQUIPMENT

- .1 Use fastenings of standard commercial sizes and patterns with material and finish suitable for service.
- .2 Bolts shall not project more than one diameter beyond nuts.

1.6 FIRE RATED ASSEMBLIES

- .1 When penetrating fire rated walls, ceiling, or floor assemblies, completely seal voids with fire-stopping materials, smoke seals, or both, in full thickness of the construction element as required to maintain the integrity of the fire rated assembly.

1.7 LOCATION OF FIXTURES, OUTLETS AND DEVICES

- .1 Consider location of fixtures, outlets, and devices indicated on *Drawings* as approximate.
- .2 Locate fixtures, outlets, and devices to provide minimum interference, maximum usable space, and as required to meet safety, access, maintenance, acoustic, and regulatory, including barrier free, requirements.
- .3 Promptly notify *Consultant* in writing of conflicting installation requirements for fixtures, outlets, and devices. If requested, indicate proposed locations and obtain approval for actual locations.

1.8 PROTECTION OF COMPLETED WORK AND WORK IN PROGRESS

- .1 Adequately protect parts of the *Work* completed and in progress from any kind of damage.
- .2 Promptly remove, replace, clean, or repair, as directed by *Consultant*, work damaged as a result of inadequate protection.
- .3 Do not load or permit to be loaded any part of the *Work* with a weight or force that will endanger the safety or integrity of the *Work*.

1.9 REMEDIAL WORK

- .1 Notify *Consultant* of, and perform remedial work required to, repair or replace defective or unacceptable work. Ensure that properly qualified workers perform remedial work. Coordinate adjacent affected work as required.

END OF SECTION

1.1 REQUEST FOR CUTTING, PATCHING AND REMEDIAL WORK

- .1 Submit written request in advance of cutting, coring, or alteration which affects or is likely to affect:
 - .1 Structural integrity of any element of the *Work*.
 - .2 Integrity of weather-exposed or moisture-resistant elements.
 - .3 Efficiency, maintenance, or safety of any operational element.
 - .4 Visual qualities of sight-exposed elements.
 - .5 Work of *Owner* or other contractors.
 - .6 Warranty of *Products* affected.
- .2 Include in request:
 - .1 Identification of *Project*.
 - .2 Location and description of affected work, including drawings or sketches as required.
 - .3 Statement on necessity for cutting or alteration.
 - .4 Description of proposed work, and *Products* to be used.
 - .5 Alternatives to cutting and patching.
 - .6 Effect on work of *Owner* or other contractors.
 - .7 Written permission of affected other contractors.
 - .8 Date and time work will be executed.

1.2 PRODUCTS

- .1 Unless otherwise specified, when replacing existing or previously installed *Products* in the course of cutting and patching work, use replacement *Products* of the same character and quality as those being replaced.
- .2 If an existing or previously installed *Product* must be replaced with a different *Product*, submit request for substitution in accordance with Section 01 25 00 - Substitution Procedures.

1.3 PREPARATION

- .1 Inspect existing conditions in accordance with Section 01 71 00 - Examination and Preparation.
- .2 Provide supports to ensure structural integrity of surroundings; provide devices and methods to protect other portions of the *Work* from damage.
- .3 Provide protection from elements for areas that may be exposed by uncovering work.

1.4 EXISTING UTILITIES

- .1 .Where the *Work* involves breaking into or connecting to existing services, give [authority having jurisdiction] [*Owner*] [*Consultant*] [48] [____] hours notice for necessary interruption of mechanical or electrical services.

- .2 Maintain excavations free of water.
- .3 Keep duration of interruptions to a minimum.
- .4 Carry out interruptions after regular working hours of occupants, preferably on weekends, unless *Owner's* prior written approval is obtained.
- .5 Protect and maintain existing active services. Record location of services, including depth, on as-built drawings.
- .6 Construct or erect barriers in accordance with Section 01 56 00 - Temporary Barriers and Enclosures as required to protect pedestrian and vehicular traffic.

1.5 CUTTING, PATCHING, AND REMEDIAL WORK

- .1 Coordinate and perform the *Work* to ensure that cutting and patching work is kept to a minimum.
- .2 Perform cutting, fitting, patching, and remedial work [including excavation and fill,] to make the affected parts of the *Work* come together properly and complete the *Work*.
- .3 Provide openings in non-structural elements of the *Work* for penetrations of mechanical and electrical work.
- .4 Perform cutting by methods to avoid damage to other work
- .5 Provide proper surfaces to receive patching, remedial work, and finishing.
- .6 Perform cutting, patching, and remedial work using competent and qualified specialists familiar with the *Products* affected, in a manner that neither damages nor endangers the *Work*.
- .7 Do not use pneumatic or impact tools without *Consultant's* prior approval.
- .8 Ensure that cutting, patching, and remedial work does not jeopardize manufacturers' warranties.
- .9 Refinish surfaces to match adjacent finishes. For continuous surfaces refinish to nearest intersection. For an assembly, refinish entire unit.
- .10 Fit work to pipes, sleeves, ducts, conduit, and other penetrations through surfaces with suitable allowance for deflection, expansion, contraction, acoustic isolation, and firestopping.
- .11 Maintain fire ratings of fire rated assemblies where cutting, patching, or remedial work is performed. Completely seal voids or penetrations of assembly with firestopping material to full depth or with suitably rated devices.

END OF SECTION

1.1 REGULATORY REQUIREMENTS

- .1 Comply with applicable regulatory requirements when disposing of waste materials.
- .2 Obtain permits from authorities having jurisdiction and pay disposal fees where required for disposal of waste materials and recyclables.

1.2 GENERAL CLEANING REQUIREMENTS

- .1 Provide adequate ventilation during use of volatile or noxious substances. [Do not rely on building ventilation systems for this purpose.]
- .2 Use only cleaning materials recommended by manufacturer of surface to be cleaned, and as recommended by cleaning material manufacturer.
- .3 Prevent cross-contamination during the cleaning process.
- .4 Notify the *Consultant* of the need for cleaning caused by *Owner* or other contractors.

1.3 PROGRESSIVE CLEANING AND WASTE MANAGEMENT

- .1 Maintain the *Work* in a tidy and safe condition, free from accumulation of waste materials and construction debris.
- .2 Provide appropriate, clearly marked, containers for collection of waste materials and recyclables. Locate containers where indicated on *Drawings*. (Suggested location shown on Campus Map Drawing)
- .3 Remove waste materials and recyclables from work areas, separate, and deposit in designated containers at end of each *Working Day*. Collect packaging materials for recycling or reuse.
- .4 Remove waste materials and recyclables from *Place of the Work* at regular intervals.
- .5 Clean interior building areas prior to start of finish work and maintain free of dust and other contaminants during finishing operations.
- .6 Schedule cleaning operations so that resulting dust, debris and other contaminants will not fall on wet, newly finished surfaces nor contaminate building systems.

1.4 FINAL CLEANING

- .1 Before final cleaning, arrange a meeting at *Place of the Work* to determine the acceptable standard of cleaning. Ensure that *Owner*, *Consultant*, *Contractor* in attendance.
- .2 Remove from *Place of the Work* surplus *Products*, waste materials, recyclables, *Temporary Work*, and *Construction Equipment* not required to perform any remaining work.

- .3 Provide professional cleaning by a qualified, established cleaning company.
- .4 Lock or otherwise restrict access to each room or area after completing final cleaning in that area.
- .5 Re-clean as necessary areas that have been accessed by *Contractor's* workers prior to *Owner* occupancy.
- .6 Remove stains, spots, marks, and dirt from finished surfaces, electrical and mechanical fixtures, furniture fitments, walls, floors, etc.
- .7 Remove dust from lighting reflectors, lenses, lamps, bulbs, and other lighting surfaces.
- .8 Vacuum clean and dust exposed wall, floor, and ceiling surfaces, behind grilles, louvres and screens, and above suspended ceiling tiles
- .9 Clean mechanical, electrical, and other equipment. Replace filters for mechanical equipment if equipment is used during construction.
- .10 Remove waste material and debris from crawlspaces and other accessible concealed spaces.
- .11 Remove stains, spots, marks, and dirt from exterior facades.
- .12 Clean and sweep roof.

1.5 WASTE MANAGEMENT AND DISPOSAL

- .1 Dispose of waste materials and recyclables at appropriate municipal landfills and recycling facilities in accordance with applicable regulatory requirements.
- .2 Do not burn or bury waste materials at *Place of the Work*.
- .3 Do not dispose of volatile and other liquid waste such as mineral spirits, oil, paints and other coating materials, paint thinners, cleaners, and similar materials together with dry waste materials or on the ground, in waterways, or in storm or sanitary sewers. Collect such waste materials in appropriate covered containers, promptly remove from *Place of the Work*, and dispose of at recycling facilities or as otherwise permitted by applicable regulatory requirements.
- .4 Cover or wet down dry waste materials to prevent blowing dust and debris.

END OF SECTION

1.1 READY-FOR-TAKEOVER

- .1 The prerequisites to attaining *Ready-for-Takeover* of the *Work* are described in the General Conditions of the *Contract*.

1.2 INSPECTION AND REVIEW BEFORE READY-FOR-TAKEOVER

- .1 *Contractor's Inspection*: Before applying for the *Consultant's* review to establish *Ready-for-Takeover* of the *Work*:
 - .1 Ensure that the specified prerequisites to *Ready-for-Takeover* of the *Work* are completed.
 - .2 Conduct an inspection of the *Work* to identify defective, deficient, or incomplete work.
 - .3 Prepare a comprehensive and detailed list of items to be completed or corrected.
 - .4 Provide an anticipated schedule and costs for items to be completed or corrected.
- .2 *Consultant's Review*: Upon receipt of the *Contractor's* application for review, together with the *Contractor's* list of items to be completed or corrected, the *Consultant* will review the *Work*. The *Consultant* will advise the *Contractor* whether or not the *Work* is *Ready-for-Takeover* and will provide the *Contractor* with a list of items, if any, to be added to the *Contractor's* list of items to be completed or corrected. Provide the *Consultant* with a copy of the *Contractor's* revised list.
- .3 Maintain the list of items to be completed or corrected and promptly correct or complete defective, deficient and incomplete work. The *Contractor's* inspection and *Consultant's* review procedures specified above shall be repeated until the *Work* is *Ready-for-Takeover* and no items remain on the *Contractor's* list of items to be completed or corrected.
- .4 When the *Consultant* determines that the *Work* is *Ready-for-Takeover*, the *Consultant* will notify the *Contractor* and the *Owner* in writing to that effect.

1.3 PREREQUISITES TO FINAL PAYMENT

- .1 After *Ready-for-Takeover* of the *Work* and before submitting an application for final payment in accordance with the General Conditions of Contract:
 - .1 Correct or complete all remaining defective, deficient, and incomplete work.
 - .2 Remove from the *Place of the Work* all remaining surplus *Products*, *Construction Equipment*, and *Temporary Work*.
 - .3 Perform final cleaning and waste removal necessitated by the *Contractor's* work performed after *Ready-for-Takeover*, as specified in Section 01 74 00 – Cleaning and Waste Management.

1.4 PARTIAL USER OCCUPANCY

- .1 If partial *Owner* occupancy of a part of the *Work* is required before the date of *Ready-for-Takeover* of the entire *Work* of the *Contract*, the provisions of this Section shall apply, to the extent applicable, to that part of the *Work* that the *Owner* intends to occupy.

1.5 SUBSTANTIAL PERFORMANCE OF THE WORK

- .1 The prerequisites to, and the procedures for, attaining substantial performance of the *Work*, or similar such milestone as provided for in the lien legislation applicable to the *Place of the Work*, shall be:
 - .1 independent of those for attaining *Ready-for-Takeover* of the *Work*, and
 - .2 in accordance with the lien legislation applicable to the *Place of the Work*.

END OF SECTION

1.1 OPERATION AND MAINTENANCE MANUAL

- .1 Prepare a comprehensive operation and maintenance manual, in the language[s] of the *Contract*, using personnel qualified and experienced for this task.
- .2 Submit an initial draft of the operation and maintenance manual for *Consultant's* review. If required by *Consultant's* review comments, revise manual contents and resubmit for *Consultant's* review. If required, repeat this process until *Consultant* accepts the draft manual in writing.
- .3 Submit final version to *Owner* in hard copy and electronic format. Provide [two (2) hard copies.

1.2 OPERATION AND MAINTENANCE MANUAL FORMAT

- .1 Organize data in the form of an instructional manual.
- .2 Binders: vinyl, hard covered, three D-rings, loose leaf, 216 x 279 mm, with spine and face pockets.
- .3 When multiple binders are used, correlate data into related consistent groupings. Identify contents of each binder on spine.
- .4 Cover: Identify each binder with typed or printed title "Operation and Maintenance Manual", name of Project or facility, and subject matter of contents.
- .5 Arrange content [by systems,] [process flow,] under Section numbers and sequence of Table of Contents.
- .6 Provide tabbed fly leaf for each separate *Product* or system, with typed description of *Product* and major component parts of equipment.
- .7 Text: Manufacturer's printed data, or typewritten data.
- .8 Drawings: provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
- .9 Provide electronic copy of manual in PDF format.
- .10 Provide electronic copy of Shop *Drawings* in manual as 1:1 scaled CAD files in .dwg format on USB flash drive electronic media acceptable to *Owner*.

1.3 OPERATION AND MAINTENANCE MANUAL – GENERAL CONTENT

- .1 Table of contents for each volume.
- .2 Introductory information including:
 - .1 Date of manual submission.

- .2 Complete contact information for *Consultant*, subconsultants, other consultants, and *Contractor*, with names of responsible parties.
 - .3 Schedule of *Products* and systems indexed to content of volume.
 - .4 For each *Product* or system, include complete contact information for *Subcontractors*, *Suppliers* and manufacturers, including local sources for supplies and replacement parts.
 - .5 *Product Data*: mark each sheet to clearly identify specific products, options, and component parts, and data applicable to installation. Delete or strike out inapplicable information. Supplement with additional information as required.
 - .6 Reviewed *Shop Drawings*.
 - .7 Permits, certificates, letters of assurance and other relevant documents issued by or required by authorities having jurisdiction.
 - .8 Warranties.
 - .9 Operating and maintenance procedures, incorporating manufacturer's operating and maintenance instructions, in a logical sequence.
 - .10 Training materials as specified in Section 01 79 00 - Demonstration and Training].
- 1.4 OPERATION AND MAINTENANCE MANUAL - EQUIPMENT AND SYSTEMS CONTENT
- .1 Each Item of Equipment and Each System: include description of unit or system and component parts. Give function, normal operation characteristics, and limiting conditions. Include performance curves, with engineering data and tests, and complete nomenclature and commercial number of replaceable parts.
 - .2 Panel Board Circuit Directories: provide electrical service characteristics, controls, and communications.
 - .3 Include installed colour coded wiring diagrams.
 - .4 Operating Procedures: include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and any special operating instructions.
 - .5 Maintenance Requirements: include routine procedures and guide for trouble-shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
 - .6 Provide servicing and lubrication schedule, and list of lubricants required.
 - .7 Include manufacturer's printed operation and maintenance instructions.
 - .8 Include sequence of operation by controls manufacturer.

- .9 Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
 - .10 Provide installed control diagrams by controls manufacturer.
 - .11 Provide *Contractor's* coordination drawings, with installed colour coded piping diagrams.
 - .12 Provide charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
 - .13 Provide list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.
 - .14 Include testing and balancing reports.
 - .15 Include additional content as specified in technical *Specifications* sections.
- 1.5 OPERATION AND MAINTENANCE MANUAL - PRODUCTS AND FINISHES CONTENT
- .1 Include *Product* data, with catalogue number, options selected, size, composition, and colour and texture designations. Provide information for re-ordering custom manufactured *Products*.
 - .2 Instructions for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
 - .3 Include an outline of requirements for routine and special inspections and for regular maintenance to ensure that on-going performance of the building envelope will meet the initial building envelope criteria.
 - .4 Include additional content as specified in technical *Specifications* sections.
- 1.6 OPERATION AND MAINTENANCE MANUAL - WARRANTIES CONTENT
- .1 Separate each warranty with index tab sheets keyed to Table of Contents listing.
 - .2 List each warrantor with complete contact information.
 - .3 Verify that documents are in proper form and contain full information. Ensure that warranties are for the correct duration and are in *Owner's* name.
 - .4 [Include maintenance bond(s)].
- 1.7 CONTRACTOR'S AS-BUILT DRAWINGS
- .1 Submit final as-built drawings in the form specified in Section 01 32 00 – Construction Progress Documentation to *Consultant*.
- 1.8 SPARE PARTS, MAINTENANCE MATERIALS, AND SPECIAL TOOLS

- .1 Supply spare parts, maintenance materials, and special tools in quantities specified in technical *Specifications* sections.
- .2 Ensure spare parts and maintenance materials are new, not damaged nor defective, and of same quality, manufacturer, and batch or production run as installed *Products*.
- .3 Provide tags for special tools identifying their function and associated *Product*.
- .4 Deliver to and store items at location directed by *Owner* at *Place of the Work*. Store in original packaging with manufacturer's labels intact and in a manner to prevent damage or deterioration.
- .5 Catalogue all items and submit to *Consultant* an inventory listing organized by *Specifications* section. Include *Consultant* reviewed inventory listing in operation and maintenance manual.

END OF SECTION

1.1 SUMMARY

- .1 Demonstrate and provide training to *Owner's* personnel on operation and maintenance of equipment and systems prior to scheduled date of *Ready-for-Takeover of the Work*.
- .2 *Owner* will provide list of personnel to receive training and will coordinate their attendance at agreed upon times.
- .3 Coordinate and schedule demonstration and training provided by *Subcontractors* and *Suppliers*.

1.2 SUBMITTALS

- .1 Submit proposed dates, times, durations, and locations for demonstration and training of each item of equipment and each system for which demonstration and training is required. Allow sufficient time for training and demonstration for each item of equipment or system, or time as may be specified in technical *Specifications*.
- .2 *Consultant* and *Owner* will review submittal and advise *Contractor* of any necessary revisions.
- .3 Submit report(s) within [5]*Working Days* after completion of demonstration and training:
 - .1 identifying time and date of each demonstration and training session,
 - .2 summarizing the demonstration and training performed, and
 - .3 including a list of attendees.

1.3 PREREQUISITES TO DEMONSTRATION AND TRAINING

- .1 Testing, adjusting, and balancing has been performed in accordance with *Contract Documents*.
- .2 Equipment and systems are fully operational.
- .3 Copy of completed operation and maintenance manual is available for use in demonstration and training.
- .4 Conditions for demonstration and training comply with requirements specified in technical *Specifications*.

1.4 DEMONSTRATION AND TRAINING

- .1 Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, and maintenance of each item of equipment and system.
- .2 Review operation and maintenance manual in detail to explain all aspects of operation and maintenance.
- .3 Prepare and insert additional information in operation and maintenance manual if required.

END OF SECTION

1.1 COMMISSIONING AGENCY

- .1 *Contractor* shall retain and pay for a commissioning agency to provide commissioning services for the *Project*.

1.2 CONTRACTOR RESPONSIBILITIES

- .1 Prepare each system ready for commissioning. Verify systems installation is complete and in operation.
- .2 Coordinate commissioning with and assist commissioning agency.
- .3 Perform and document verification, performance testing, adjusting, and balancing operations.
- .4 Cooperate with commissioning agency and provide access to equipment and systems.
- .5 Provide personnel and operate systems at designated times, and under conditions required for proper commissioning.
- .6 Make instruments available to commissioning agency to facilitate spot checks during commissioning.
- .7 Participate in commissioning meetings.
- .8 Complete commissioning forms as requested by commissioning agency.
- .9 Correct deficiencies identified in commissioning process.
- .10 Incorporate commissioning data into operation and maintenance manual.
- .11 Ensure that commissioning agency participates in demonstration and training as specified in Section 01 79 00 – Demonstration and Training.
- .12 Provide instruments necessary for commissioning.

1.3 COMMISSIONING AGENCY RESPONSIBILITIES

- .1 The commissioning agency shall:
 - .1 Prepare a commissioning plan, including systems to be commissioned, forms, checklists and responsibilities of commissioning team members.
 - .2 Implement the commissioning plan and lead the commissioning team through start-up, verification, performance testing, training, and document preparation.
 - .3 Convene, chair, prepare and distribute minutes of commissioning meetings.
 - .4 Supervise commissioning activities and witness inspections and tests.

- .5 Make periodic site visits for the purpose of selective checking of accuracy of commissioning form submissions, witness testing, and review of mock-ups.
- .6 Review content of operations and maintenance manual.
- .7 Provide instruments necessary for commissioning.

1.4 CONSULTANT RESPONSIBILITIES

- .1 *Consultant* will:
 - .1 Participate in commissioning meetings.
 - .2 Coordinate commissioning agency's involvement in *Shop Drawing* review process.
 - .3 Review verification and performance test results and direct *Contractor* to correct defects or deficiencies in the *Work*.
 - .4 Initiate *Change Orders* or *Change Directives* identified as necessary by the commissioning process.
 - .5 Review final commissioning report.

1.5 OWNER RESPONSIBILITIES

- .1 *Owner* will:
 - .1 Assign operations and maintenance personnel to participate in meetings, and witnessing of demonstration, and training.
 - .2 Designate a person to acknowledge receipt of reports.

1.6 SCHEDULE OF EQUIPMENT AND SYSTEMS TO BE COMMISSIONED

SPEC NOTE: Use this article to provide a comprehensive list of all equipment and systems to be commissioned. Ensure that individual technical Specification Sections include more detailed commissioning related requirements, as necessary.

.1 Division [] – []

.1 []

.2 []

.3 []

.2 Division [] – []

.1 []

.2 []

.3 []

.3 Division [] – []

.1 []

.2 []

.3 []

END OF SECTION

CAMPUS MAP

BUILDINGS

Alumni House.....	7	John Hodgins Engineering Building (JHE)	16
Alumni Memorial Hall (University Club)	8	Kenneth Taylor Hall (KTH)	38
Applied Dynamics Laboratory (ADL)	33	L.R. Wilson Hall (LRW)	74
Arthur N. Bourns Building (ABB)	25	Les Prince Hall.....	53
Bates Residence Building	40	Life Sciences Building (LSB)	39
Bertrand Russell Archives and Research Centre.....	82	Mary E. Keyes Residence.....	50
Biology Greenhouse.....	30	Matthews Hall.....	26
Brandon Hall.....	36	McKay Hall	27
Burke Science Building (BSB)	11	McMaster Children's Centre	T33
Campus Services Building (CSB)	31	McMaster Divinity College (MDC)...	17
Canadian Martyrs CES Testing/Exam Centre (Licensed Space)	91	McMaster University Student Centre (MUSC)	51
Chester New Hall (CNH).....	23	Michael DeGroot Centre for Learning and Discovery (MDCL) ...	52
Commons Building.....	28	Mills Memorial Library / Alvin A. Lee Building / Museum of Art (MML) ...	10
Communications Research Laboratory (CRL).....	43	Moulton Hall.....	18
David Braley Athletic Centre (DBAC)	54	Nuclear Reactor	15
David Braley Health Sciences Centre (DBHSC)	83	Nuclear Research Building (NRB) ...	9
DeGroot School of Business (DSB).....	46	One James North (OJN)	85
E.T. Clarke Centre (Security).....	12	Parking Services	T32
Edwards Hall	5	Peter George Centre for Living and Learning (PGCLL)	89
Engineering Technology Building (ETB).....	56	Preliminary Laboratory.....	T13
General Sciences Building (GSB).....	22	Psychology Building (PC).....	34
Gilmour Hall (GH)	20	Refractory (The Phoenix / Bridges)...	4
H.G. Thode Library of Science and Engineering	42	Ron Joyce Stadium / Les Prince Field	55
Hamilton Hall (HH)	2	St. Paul's Anglican Church	73
Health Sciences Centre (HSC/MUMC)	37	Tandem Accelerator Building.....	32
Health Sciences Complex Parking Structure	44	Temporary Building, Multi-Use ...	TB26
Hedden Hall.....	45	Temporary Lecture Theatre	T34
Information Technology Building (ITB).....	49	Togo Salmon Hall (TSH).....	29
Institute for Applied Health Sciences (IAHS)	48	University Hall (UH).....	1
Ivor Wynne Centre (IWC - Athletic Centre).....	24	Wallingford Hall	6
		Whidden Hall	19
		Woodstock Hall.....	35
		47 Whitton Road	86
		96 Forsyth Avenue North	94
		106 Forsyth Avenue North	95
		182 Sterling Street.....	87

LEGEND

- X

 Parking Lot Zone
- ♿

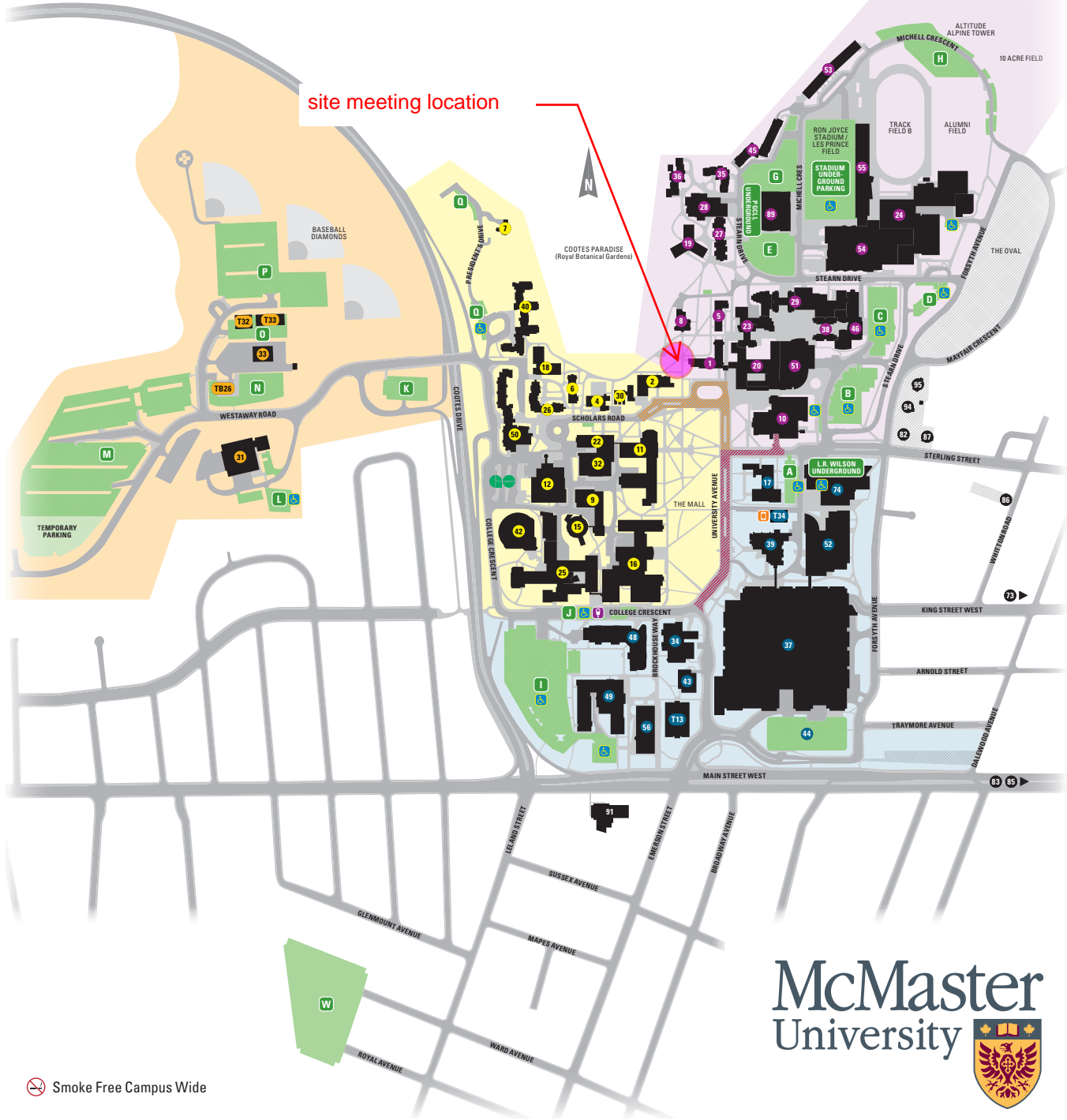
 Accessible Parking
- Ⓜ

 Meter Parking
- 🚶

 Pedestrian Priority
- 🚒

 Pedestrian Priority / Emergency and Service Vehicles Only

🚭 Smoke Free Campus Wide



RFQ No.: 1102 2025
Project Name: 20020136 UH HVAC System upgrade
Date: Aug.05, 2025



Appendix A – Supplementary Conditions to Stipulated Price Contract

SUPPLEMENTARY CONDITIONS
TO
STIPULATED PRICE CONTRACT (CCDC 2-2020)

GENERAL REFERENCE

The Canadian Construction Documents Committee, Stipulated Price Contract (CCDC 2-2020), consisting of the Agreement between Owner and Contractor, Definitions, General Conditions of the Stipulated Price Contract, *Construction Documents* and these Supplementary Conditions, are part of the Contract Documents.

The following Supplementary Conditions shall amend and modify and be read in conjunction with the Canadian Construction Documents Committee, Stipulated Price Contract (CCDC 2-2020).

The form of Agreement between Owner and Contractor to be signed is the pre-printed Canadian Construction Documents Committee, Stipulated Price Contract (CCDC 2-2020).

Section and paragraph references below are to the corresponding sections and paragraphs of the Agreement between Owner and Contractor, Definitions and General Conditions of the Canadian Construction Documents Committee, Stipulated Price Contract (CCDC 2-2020). Where a General Condition or paragraph of the General Conditions of Stipulated Price Contract (CCDC 2-2020) is deleted by these Supplementary Conditions, the numbering of the remaining General Conditions or paragraphs shall remain unchanged, and the numbering of the deleted item will be retained, unused.

AGREEMENT

A-1 The Work

A-1.3 ADD the words “and attain Completion of the Work as soon as reasonably possible thereafter and in any event by the date which is 30 days following “Substantial Performance of the Work” at the end of paragraph 1.3.

A-3 Contract Documents

A-3.1 ADD the words “Supplementary Conditions, Schedule to Contract, Drawings, Specifications, Performance Bond and Labour and Material Bond” at the end of paragraph 3.1.

A-5 Payment

A-5.1 Amend paragraph 5.1.3 in the first line by deleting the words “...the issuance of the...” and replacing them with “...receipt of the *Consultant’s*...”.

A-5.2 Delete paragraph 5.2.1 in its entirety and replace it with the following:

5.2 Interest

- .1 Should either party fail to make payments as they become due under the terms of the Contract or in an award by arbitration or court, interest shall also become due and payable on such unpaid amounts at the prime rate. Such interest shall be compounded on a monthly basis. The prime rate shall be the rate of interest quoted by the Bank of Canada for prime business loans, as it may change from time to time

A-6 **Receipt of and Addresses for Notices**

A-6.2 ADD the words “prior to 4:00 p.m. on a Working Day and otherwise on the next following Working Day” after the words “hand or courier” in the fifth line of paragraph 6.1.

A-6.6 ADD new paragraph 6.6 as follows:

“6.6 In addition to the addresses, requirements and timelines set out in Article 6, the following applies:

- .1 for the purposes of prompt payment provisions of the Construction Act, if applicable, and Part 5 – PAYMENT,
 - (i) applications for payment and Proper Invoices will be considered given or delivered by the Contractor to the Owner when they have been sent by the Contractor and such delivery can be verified; and
 - (ii) notices of non-payment will be considered to have been given or delivered by the Owner to the Contractor when they have been received by the Contractor and such receipt can be verified, and
- .2 for the purposes of the adjudication provisions of the Construction Act, if applicable, and other dispute notices, communications or delivery of documents to be given under the applicable Construction Act will:
 - (i) in the case of the Owner, be given by the Contractor, by electronic mail, to facility.services@mcmaster.ca and to the individuals and at the locations indicated in the Owner’s notice delivered to the Contractor prior to the commencement of the Work; and
 - (ii) in the case of the Contractor, be given by the Owner, by electronic mail, to [insert email address] and to the individuals and at the locations indicated in the Contractor’s notice delivered to the Owner prior to the commencement of the Work.”

A-9 **Conflict of Interest**

ADD NEW ARTICLE A-9 – CONFLICT OF INTEREST:

- 9.1 The Contractor, all of the Subcontractors and Suppliers and any of their respective advisors, partners, directors, officers, employees, agents, and volunteers shall not engage in any activity or provide any services where such activity or the provision of such services creates a conflict of interest (actually or potentially, in the sole opinion of the Owner) with the provision of the Work pursuant to the Contract. The Contractor acknowledges and agrees that a conflict of interest, as described in this Article A-9, includes, but is not limited to, the use of Confidential Information where the Owner has not specifically authorized such use.

- 9.2 The Contractor shall disclose to the Owner, in writing, without delay, any actual or potential situation that may be reasonably interpreted as either a conflict of interest or a potential conflict of interest, including the retention of any Subcontractor or Supplier that is directly or indirectly affiliated with or related to the Contractor.
- 9.3 The Contractor covenants and agrees that it will not hire or retain the services of any employee or previous employee of the Owner where to do so constitutes a breach by such employee or previous employee of the Owner's conflict of interest policy, as it may be amended from time to time, until after completion of the Work under the Contract.
- 9.4 It is of the essence of the Contract that the Owner shall not have direct or indirect liability to any Subcontractor or Supplier, and that the Owner relies on the maintenance of an arm's-length relationship between the Contractor and its Subcontractors and Suppliers. Consistent with this fundamental term of the Contract, the Contractor will not enter into any agreement or understanding with any Subcontractor or Supplier, whether as part of any contract or any written or oral collateral agreement, pursuant to which the parties thereto agree to cooperate in the presentation of a claim for payment against the Owner, directly or through the Contractor, where such claim is, in whole or in part, in respect of a disputed claim by the Subcontractor or Supplier against the Contractor, where the payment to the Subcontractor or Supplier by the Contractor is agreed to be conditional or contingent on the ability to recover those amounts or a portion thereof from the Owner, failing which the Contractor shall be saved harmless from all or a portion of those claims. The Contractor acknowledges that any such agreement would undermine the required arm's-length relationship and constitute a conflict of interest. For greater certainty, the Contractor shall only be entitled to advance claims against the Owner for amounts pertaining to Subcontractor or Supplier claims where the Contractor has actually paid or unconditionally acknowledged liability for those claims or where those claims are the subject of litigation or binding arbitration between the Subcontractor or Supplier and the Contractor has been found liable for those claims.
- 9.5 Notwithstanding paragraph 7.1.2 of GC 7.1 - OWNER'S RIGHT TO PERFORM THE WORK, TERMINATE THE CONTRACTOR'S RIGHT TO CONTINUE WITH THE WORK, SUSPEND THE WORK OR TERMINATE THE CONTRACT, a breach of this Article by the Contractor, any of the Subcontractors, or any of their respective advisors, partners, directors, officers, employees, agents, and volunteers shall entitle the Owner to terminate the Contract, in addition to any other rights and remedies that the Owner has in the Contract, in law, or in equity.

DEFINITIONS

6. Contract Documents: ADD at the end of the sentence the words "in writing".
- ADD the following new definitions in the appropriate alphabetical order and renumber the definitions accordingly:
- "Actual Subcontract Costs**
Actual Subcontract Costs means in respect of each Subcontract between the Contractor and a Subcontractor or a Supplier the actual subcontract price or supply price set forth therein or calculated thereunder."

“As-Built Drawings

As-Built Drawings means CAD drawings prepared by the *Contractor* by amending a copy of the Drawings to reflect the changes from the Drawings which occur during construction including, but are not limited to, the exact location of major building components that were shown generally on the Drawings.

“Commencement of the Work

Commencement of the Work or commencing the Work means the commencement of the erection of hoarding at the Place of the Work or the mobilization of or entering into of the Place of the Work by the Contractor’s forces.”

“Completion

Completion means when all of the following have occurred:

- (a) Substantial Performance of the Work has been achieved; and
- (b) the Consultant has certified that:
 - (i) the Contract is deemed to have been fully completed within the meaning of the Construction Act; or
 - (ii) if any such legislation is not in force or does not contain such definition, the price of completion, correction of a known defect or last supply is not more than the lesser of 1 per cent of the Contract Price and \$5,000.”

“Confidential Information

Confidential Information means all the information or material of the *Owner* that is of a proprietary or confidential nature, whether it is identified as proprietary or confidential or not, including but not limited to information and material of every kind and description (such as drawings and move-lists) which is communicated to or comes into the possession or control of the *Contractor* at any time, but *Confidential Information* shall not include information that:

- 1) is or becomes generally available to the public without fault or breach on the part of the *Contractor*, including without limitation breach of any duty of confidentiality owed by the *Contractor* to the *Owner* or to any third party, but only after that information becomes generally available to the public;
- 2) the *Contractor* can demonstrate to have been rightfully obtained by the *Contractor* from a third party who had the right to transfer or disclose it to the *Contractor* free of any obligation of confidence;
- 3) the *Contractor* can demonstrate to have been rightfully known to or in the possession of the *Contractor* at the time of disclosure, free of any obligation of confidence; or
- 4) is independently developed by the *Contractor* without use of any *Confidential Information*.”

“Construction Act

The Construction Act means the *Construction Act*, R.S.O. 1990, c.C.30 and regulations enacted thereunder, all as amended from time to time and subject to the application of the transition provisions in s. 87.3 of the Construction Act. *Payment Legislation* shall be deemed a reference to the Construction Act.”

“Construction Budget

Construction Budget means the construction budget included as one of the Contract Documents, as the same may be revised from time to time with the prior written approval of the Owner in its sole discretion.”

“Construction Schedule

Construction Schedule means the schedule for the performance of the Work provided by the Contractor pursuant to GC3.4, including any amendments to the Construction Schedule made pursuant to the Contract Documents and approved by the Owner.”

“Force Majeure

Force Majeure means any bona fide delay or state of affairs reasonably beyond the control of a party (other than as a result of financial incapacity of such party) which shall cause any party to be unable to fulfil or to be delayed or restricted in the fulfilment of such party’s obligations arising as a result of:

- (i) labour disputes, fire, unusual delay by common carriers or unavoidable casualties;
- (iii) enemy or hostile actions, sabotage, war, blockades, insurrections, riots, epidemics, washouts, nuclear and radiation activity or fall-out, civil disturbances, explosions, fire or other casualty, and acts of God (provided specifically that adverse weather conditions shall not be considered acts of God, even if such conditions are unusually adverse);
- (iv) any injunction ordered by a court of competent jurisdiction; or
- (v) disease, epidemics, pandemics (including COVID-19), power shortages or outages; or
- (vi) inability to obtain any required material, goods, equipment, service or labour, as a result of the circumstances described in (i)-(v) above, unless they are readily available, or easily substituted at prices which are not grossly excessive in the circumstances, or could have been previously acquired by the party had it completed reasonable efforts to anticipate the requirement of the Work.”

“Install

Install means install and connect. Install has this meaning whether or not the first letter is capitalized.”

“Labour Dispute

Labour Dispute means any lawful or unlawful labour problems, work stoppage, labour disruption, strike, job action, slow down, lock-outs, picketing, refusal to work or continue to work, refusal to supply materials, cessation or work or other labour controversy which does, or might, affect the Work.”

“Overhead

Overhead means all site and head office operations and facilities, all site and head office administration and supervision, including project manager costs; all duties and taxes for permits and licenses required by the authorities having jurisdiction at the Place of the Work; all requirements of Division 1, including but not limited to submittals, warranty, quality control, insurance and bonding; calculations, testing and inspections; meals and accommodations; and, tools, expendables and clean-up costs.”

“Proper Invoice

Proper Invoice means an application for payment containing the information that may be required for the application for payment to constitute a “proper invoice” under the Construction Act, if applicable, and includes the following:

- (a) all of the information specified to be included in a proper invoice as set out in the Construction Act, if applicable, and including:
 - (i) the Contractor’s name and address;
 - (ii) the date of the application for payment and the period during which the Work was performed;
 - (iii) information identifying the authority, whether in the Contract or otherwise, under which the Work was performed;
 - (iv) a description, including quantity where appropriate, of the Work performed and Products supplied;
 - (v) the amount payable for the Work performed, and the payment terms; and
 - (vi) the name, title, telephone number and mailing address of the person to whom payment is to be sent;
- (b) for each application for payment after the first, an original statutory declaration in the most current form of CCDC 9A or other form of statutory declaration that includes the same unqualified declaration, certifying that all accounts of the Contractor have been paid in full, less only the amounts of holdback due to them for the relevant dates, that all liabilities incurred by the Contractor and its subcontractors and suppliers in carrying out the Contract have been discharged and that all liens under the Contract have expired or have been satisfied, discharged or provided for by payment;

- (c) the total amount of expenditures to date and the total estimated expenditures to be made for the remaining balance of the Work;
- (d) true copies of all invoices and statements from Subcontractors and Supplier furnishing Work, Products, Construction Equipment purchased under cash allowances;
- (e) evidence that all bonds and insurance required under this Contract to be provided by the Contractor remain in good standing;
- (f) satisfactory evidence in the form of a certificate of clearance or good standing issued by the applicable workers' compensation authority evidencing that the Contractor has made suitable provision for meeting any liability under the applicable workers' compensation laws and regulations prior to the release of any monthly progress payment and;
- (g) an updated schedule showing approved baseline schedule and tracking of actual progress on project and;
- (h) any other criteria set out by the Owner in the form of Proper Invoice attached to these supplemental conditions at Appendix A."

"Provide

Provide, when used in conjunction with Product, means to supply, install and put into service."

"Request for Information/RFI

Request for Information or RFI means written documentation sent by the Contractor to the Owner or to the Owner's representative or the Consultant requesting written clarification(s) and/or interpretation(s) of the Drawings and/or Specifications, Contract requirements and/or other pertinent information required to complete the Work of the Contract without applying for a change or changes to the Work."

"Subcontract

Subcontract means all subcontracts and supply agreements in respect of the performance of any part of the Work or the supply of any Products or other labour or materials in connection with the Work which are entered into by the Contractor with a Subcontractor or Supplier in accordance with GC 3.8 - SUBCONTRACTORS AND SUPPLIERS."

"Warranty Reserve

Warranty Reserve means a reserve of one per cent (1%) of the *Contract Price* to be held by the *Owner* for the greater of i) one year; and ii) any extended warranty period as required under 12.3.5, following the date of *Ready-for-Takeover* and applied as set out in GC 12.3 to remedy any *Work* that is under warranty and that may not be performed by the *Contractor* as otherwise required under the *Contract Documents*.

GENERAL CONDITIONS OF THE STIPULATED PRICE CONTRACT

GC 1.1 Contract Documents

1.1.5 DELETE paragraph 1.1.5 in its entirety and REPLACE it with the following:

“There are no other terms and conditions between the Owner and Contractor other than as expressed in the *Contract Documents*. If there is a conflict within the *Contract Documents*:

- .1 the order of priority of documents, from highest to lowest, shall be
 - Supplementary Conditions,
 - the Agreement between the Owner and the Contractor,
 - the Definitions,
 - the General Conditions,
 - Division 1 of the Specifications,
 - technical Specifications,
 - material and finishing schedules,
 - the Drawings.
- .2 amendments to the *Contract Documents* shall govern over the documents so amended.
- .3 Add new paragraphs 1.1.5.3, 1.1.5.4, 1.1.5.5, 1.1.5.6, 1.1.5.7, 1.1.5.8, 1.1.5.9, 1.1.5.10, and 1.1.5.11 as follows:
 - 1.1.5.3 noted materials and annotations on the Drawings shall govern over the graphic representation of the Drawings.
 - 1.1.5.4 finishes in the room finish schedules shall govern over those shown on the Drawings.
 - 1.1.5.5 Schedules of Division 01 – General Requirements of the Specifications shall form part of and be read in conjunction with the technical specification section as listed in the table of contents of the Specifications.
 - 1.1.5.6 architectural drawings shall have precedence over structural, plumbing, mechanical, electrical and landscape drawings insofar as outlining, determining and interpreting conflicts over the required design intent of all architectural layouts and architectural elements of construction, it being understood that the integrity and installation of the systems designed by the Consultant or its sub-Consultants are to remain with each of the applicable drawing disciplines.
 - 1.1.5.7 fixturing drawings provided by the Owner, if any, shall have precedence over architectural drawings insofar as outlining, determining and interpreting conflicts over the required design intent of all architectural layouts.
 - 1.1.5.8 should reference standards contained in the Specifications conflict with the Specifications, the Specifications shall govern. Should reference standards and Specifications conflict with each other or if certain requirements of the Specifications conflict with other requirements of the Specifications, the more stringent requirements shall govern.
 - 1.1.5.9 Drawings of larger scale shall govern over those of smaller scale of the same date.

1.1.5.10 dimensions shown on Drawings shall govern over dimensions scaled from Drawings.

1.1.5.11 amended or later dated documents shall govern over earlier documents of the same type.

1.1.9 ADD the following to the end of 1.1.9:

The Specifications are divided into divisions and sections for convenience but shall be read as a whole and neither such division nor anything else contained in the Contract Documents will be construed to place responsibility on the Owner or the Consultant to settle disputes among the Subcontractors and Suppliers with respect to such divisions. The Drawings are, in part, diagrammatic and are intended to convey the scope of the Work and indicate general and appropriate locations, arrangements and sizes of fixtures, equipment and outlets. The Contractor shall obtain more accurate information about the locations, arrangements and sizes from study and coordination of the Drawings, including Shop Drawings and shall become familiar with conditions and spaces affecting those matters before proceedings with the Work. Where site conditions require reasonable minor changes in indicated locations and arrangements, the Contractor shall make such changes at no additional cost to the Owner. Similarly, where known conditions or existing conditions interfere with new installation and require relocation, the Contractor shall include such relocation in the Work. The Contractor shall arrange and install fixtures and equipment in such a way as to conserve as much headroom and space as possible. The schedules are those portions of the Contract Documents, wherever located and whenever issued, which compile information of similar content and may consist of drawings, tables and/or lists.

1.1.12 ADD a new paragraph 1.1.12 as follows:

1.1.12 The Consultant, on behalf of the Owner, shall provide the Contractor without charge, an electronic pdf/CAD drawings and version of the Contract Documents, exclusive of those required by jurisdictional authorities and the Contractor is responsible to print as many copies as it requires at no cost to the Owner. The Consultant shall issue Issued for Construction set of Contract Documents in an electronic format to the Contractor. Additional copies can be purchased by the Contractor at the Consultant's cost of reproduction, handling and sales tax. The Contract Documents shall be signed in triplicate (3) by the Owner and the Contractor, and each of the Contractor, the Owner and the Consultant shall retain one set of signed and sealed (if required by the governing law of the Contract) Contract Documents.

1.1.13 ADD a new paragraph 1.1.13 as follows:

1.1.13 If, at any time, the Contractor finds errors, inconsistencies, or omissions in the Contract Documents or has any doubt as to the meaning or intent of any part thereof, including laying out of the Work, the Contractor shall immediately notify the Consultant, and request instructions, a Supplemental Instruction, Change Order, or Change Directive, as the case may require, and the Contractor shall not proceed with the work affected until the Contractor has received such instructions, a Supplemental Instruction, Change Order or Change Directive. Neither the Owner nor the Consultant will be responsible for the consequences of any action of the Contractor based on oral instructions. Errors, inconsistencies and/or omissions in the Drawings and/or Specifications which do not allow completion of the Work of the Contract shall be brought to the Consultant's attention prior to the execution of the Contract by means of an RFI. Notwithstanding the foregoing, errors,

inconsistencies, discrepancies and/or omissions shall not include lack of reference on the Drawings or in the Specifications to labour and/or Products that are required or normally recognized within respective trade practices as being necessary for the complete execution of the Work. The Contractor shall not use subsequent RFIs, issued during execution of the Work to establish a change and/or changes in the Work pursuant to Part 6 – CHANGES IN THE WORK.

GC 1.5 Examination of Documents and Site

.1 ADD new GC 1.5 – EXAMINATION OF DOCUMENTS AND SITE as follows:

1.5.1 The Contractor declares and represents that in tendering for the Work, and in entering into a Contract with the Owner for the performance of the Work, it has either investigated for itself the character of the Work to be done and all local conditions, including the location of any utility which can be determined from the records or other information available at the offices of any person, partnership, corporation, including a municipal corporation and any board or commission thereof having jurisdiction or control over the utility that might affect its tender or its acceptance of the Work, or that, not having so investigated, the Contractor has assumed and does hereby assume all risk of conditions now existing or arising in the course of the Work which might or could make the Work, or any items thereof more expensive in character, or more onerous to fulfil, than was contemplated or known when the tender was made or the Contract signed.

1.5.2 The Contractor also declares that in tendering for the Work and in entering into this Contract, other than any survey or geotechnical report furnished by the *Owner*, the Contractor did not and does not rely upon information furnished by the Owner or any of its agents or servants respecting the nature or confirmation of the ground at the site of the Work, or the location, character, quality or quantity of the materials to be removed or to be employed in the construction of Work, or the character of the construction machinery and equipment or facilities needed to perform the Work, or the general and local performance of the work under the Contract and expressly waives and releases the Owner from all claims with respect to the said information with respect to the Work.

GC 1.6 Time is of the Essence

.1 ADD new GC 1.6 - TIME IS OF THE ESSENCE OF THE CONTRACT as follows:

1.6.1 All time limits stated in the Contract Documents are of the essence of the Contract.

GC 2.2 Role of the Consultant

2.2.6 DELETE from paragraph 2.2.6 the words “Except with respect to GC 5.1 - FINANCING INFORMATION REQUIRED OF THE OWNER” in the first line.

2.2.12 Amend paragraph 2.2.12 by the addition of the following to the end of that paragraph:

If, in the opinion of the Contractor, the Supplemental Instruction involves an adjustment in the Contract Price or in the Contract Time, it shall, within ten (10) Working Days of receipt of a Supplemental Instruction, provide the Consultant with a notice in writing to that effect. Failure to provide written notification within the time stipulated in this paragraph 2.2.12 shall be deemed an acceptance of the Supplemental Instruction by the Contractor, without any adjustment in the Contract Price or Contract Time.

2.2.15 ADD at the end of paragraph 2.2.15 the words “as well as a review to determine the date of Completion of the Work as provided herein.”

2.2.19 ADD new paragraph 2.2.19 as follows:

2.2.19 The Consultant or the Owner, acting reasonably, may from time to time require the Contractor to remove from the Project any personnel of the Contractor, including project managers, superintendents or Subcontractors. Such persons shall be replaced by the Contractor in a timely fashion to the satisfaction of the Consultant or the Owner, as the case may be, at no cost to the Owner.

GC 2.3 Review and Inspection of the Work

ADD new paragraph 2.3.8 as follows:

2.3.8 The Consultant will conduct periodic reviews of the Work in progress, to determine general conformance with the requirements of the Contract Documents. Such reviews, or lack thereof, shall not give rise to any claims by the Contractor in connection with construction means, methods, techniques, sequences and procedures, nor in connection with construction safety at the Place of Work, responsibility for which belongs exclusively to the Contractor.

GC 2.4 Defective Work

2.4.1 ADD the following at the end of paragraph 2.4.1:

The Contractor shall rectify, in a manner acceptable to the Owner and the Consultant, all defective work and deficiencies throughout the Work, whether or not they are specifically identified by the Consultant and in a manner and priority that does not adversely affect the day to day operations of the *Owner* or the progress of the Work.

2.4.2 DELETE paragraph 2.4.2 in its entirety and replace it with the following:

2.4.2 The Contractor shall promptly pay the Owner for costs incurred by the Owner, the Owner's own forces or the Owner's other contractors, for work destroyed or damaged or any alterations necessitated by the Contractor's removal, replacement or re-execution of defective work. The Owner may request that the Contractor rectify any such deficiencies to other contractors' work, at the Contractor's expense.

2.4.3 DELETE paragraph 2.4.3 in its entirety and REPLACE it with the following:

“2.4.3 If in the opinion of the Consultant it is not expedient to correct defective Work or Work not performed as provided in the Contract Documents, the Owner may deduct from the amount otherwise due to the Contractor the lesser of (i) the difference in value between the Work as performed and that called for by the Contract Documents and (ii) the cost to rectify the defective or substandard Work. If the Owner and the Contractor do not agree on the difference in value or the cost to rectify the Work, they shall refer the matter to the Consultant for determination.”

GC 3.2 Construction By Owner or Other Contractors

3.2.2.1 Delete paragraph 3.2.2.1 in its entirety.

- 3.2.2.2 DELETE paragraph 3.2.2.2 in its entirety and substitute the words “require other contractors and the Owner’s own forces to comply with the requirements and instructions of the *Contractor* with respect to construction safety at the Place of the Work.

ADD new paragraph 3.2.3.4 as follows:

- 3.2.3.4 Subject to General Condition 9.4 - CONSTRUCTION SAFETY, assume overall responsibility for compliance with all aspects of the applicable health and safety legislation in the *Place of the Work* for the *Owner’s* own forces and for other contractors, including all of the responsibilities of the contractor, constructor, prime contractor or principal contractor as may apply in accordance with the applicable health and safety legislation of the *Place of the Work* as defined in the *Occupational Health and Safety Act*.

ADD new paragraph 3.2.3.5 as follows:

- 3.2.3.5 Take all reasonable, practical and prudent steps to provide for the coordination of the activities and work of other contractors and *Owner’s* own forces with the *Work* of the *Contract*.

GC 3.4 Construction Schedule

Delete paragraph 3.4.1 in its entirety and replace with the following:

- 3.4.1 The Contractor shall:
- .1 within ten (10) calendar days of receiving written confirmation of the award of the Contract or a purchase order from the *Owner*, prepare and submit to the *Owner* and the *Consultant* for their review and acceptance, a Critical Path Method (CPM) construction schedule that indicates the timing of the activities of the Work and provides sufficient detail of the critical events and their inter-relationship to demonstrate the Work will be performed in conformity with the Contract Time and include all project phases and milestones in accordance with the Contract Documents. Such schedule is to include a delivery schedule for Products whose delivery is critical to the schedule for the Work or are required by the Contract to be included in a Products delivery schedule. The Contractor shall provide the schedule and any successor or revised schedules in both electronic format and hard copy. Once accepted by the Owner and the Consultant, the construction schedule submitted by the Contractor shall become the baseline construction schedule (the “Baseline Construction Schedule”). The Baseline Construction Schedule and any updated schedule provided in accordance with the Contract shall include a provision for contingency time to reflect normally adverse weather conditions appropriate to the season. Critical path must be clearly identified as a series of continuous activities with minimum total float; and,
 - .2 employ construction scheduling software, where required by the Specifications, that permits the progress of the Work to be monitored in relation to the critical path established in the Baseline Construction Schedule; and,
 - .3 provide the expertise and resources, such resources including manpower and equipment, as are necessary to maintain progress under the accepted baseline construction schedule or revised schedule accepted by the Owner pursuant to GC 3.4 CONSTRUCTION SCHEDULE; and,

- .4 provide the Construction Schedule on the first Monday of every calendar month, or in the event that day is a public holiday in the Province of Ontario, on the next business day, and any successor or revised schedules in both (editable) electronic format and hard copy. Once accepted by the Owner and the Consultant, the revised construction schedule submitted by the Contractor shall become the revised baseline construction schedule (the “Revised Baseline Construction Schedule”);
 - .5 monitor the progress of the Work on a weekly basis relative to the baseline construction schedule, or any revised schedule accepted by the Owner pursuant to GC 3.4 CONSTRUCTION SCHEDULE, update and submit to the Consultant and Owner the electronic and hard copy schedule on a monthly basis, at a minimum, or as required by the Consultant and advise the Consultant and the Owner weekly in writing of any variation from the Baseline Construction Schedule or Revised Baseline Construction Schedule; and,
 - .6 subject to the provisions of GC 6.5 DELAYS, provide overtime work without change to the Contract Price if such work is deemed necessary to meet the schedule; and,
 - .7 ensure that the Contract Price shall include all costs required to phase or stage the Work.
 - .8 Provide cash flow projections on a monthly basis to the date for Ready-for Takeover, that reflects the approved construction schedule.
- .2 Add new paragraph 3.4.2 as follows:
- 3.4.2 If, after applying the expertise and resources required under subparagraph 3.9.1, the Contractor forms the opinion that the variation in the Baseline Construction Schedule or the Revised Baseline Construction Schedule, whichever applies, reported pursuant to subparagraph 3.4.1 cannot be recovered by the Contractor, it shall, in the same notice, indicate to the Consultant and the Owner if the Contractor intends to apply for an extension of Contract Time as provided in PART 6 - CHANGES IN THE WORK. A written narrative identifying and demonstrating the reason, using the critical path, for the extension must accompany any request for extension to Contract Time.
- .3 Add a new paragraph 3.4.3 as follows:
- 3.4.3 If, at any time, it should appear to the Owner or the Consultant that the actual progress of the Work is behind schedule or is likely to become behind schedule, or if the Contractor has given notice of such to the Owner or the Consultant pursuant to subparagraph 3.4.2, the Contractor shall, either at the request of the Owner or the Consultant, or following giving notice pursuant to subparagraph 3.4.2, take appropriate steps to cause the actual progress of the Work to conform to the schedule or minimize the resulting delay. Within five (5) calendar days of the request by the Owner or the Consultant or the notice being given pursuant to subparagraph 3.4.2, the Contractor shall produce and present to the Owner and the Consultant a plan demonstrating how the Contractor will achieve the recovery of the last accepted schedule.
- .4 Add new paragraph 3.4.4 as follows:

- 3.4.4 The Contractor is responsible for performing the Work within the Contract Time. Any schedule submissions revised from the accepted baseline construction schedule or revised schedule accepted by the Owner pursuant to GC 3.4 CONSTRUCTION SCHEDULE, during construction are not deemed to be approved extensions to the Contract Time. All extensions to the Contract Time must be made in accordance with the Contract Documents.

GC 3.5 Supervision

ADD new paragraph 3.5.3 as follows:

- 3.5.3 The Owner may, at any time during the course of the Work, request the replacement of the appointed representative(s). Immediately upon receipt of the request, the Contractor shall make arrangements to appoint an acceptable replacement, which is approved by the Owner. The supervisory staff assigned to the Project shall also be fully competent to implement efficiently all requirements for scheduling, coordination, field engineering, reviews, inspections and submittals defined in the Specifications, and have minimum 5 years documented "Superintendent/Project Management" experience.

GC 3.6 Subcontractors and Suppliers

- 3.6.1.1 ADD at the end of paragraph 3.6.1.1 "including any warranties and service agreements which extend beyond the term of the Contract, and".

- 3.6.1.2 In subparagraph 3.6.1.2 after the words "the *Contract Documents*" insert the words "including any required surety bonding".

- 3.6.1.3 ~~Delete~~ the period at the end of paragraph 3.6.1.3 and ~~add~~ at the end: "and must be identified in the Supplementary Bid Forms in the area provided. Such identified personnel must not be changed without the written consent of the *Owner* and the *Consultant* and unless the supervisor proves to be unsatisfactory to the *Owner* and *Consultant* or ceases to be in the employ of the *Contractor*."

- 3.6.2 ~~Delete~~ paragraph 3.6.2 in its entirety and replace with the following:

- 3.6.2 Substitution of any Subcontractor and/or Suppliers after submission of the Contractor's bid will not be accepted unless a valid reason is given in writing to and approved by the Owner, whose approval may be arbitrarily withheld. The reason for substitution must be provided to the Owner and to the original Subcontractor and/or Supplier and the Subcontractor and/or Supplier shall be given the opportunity to reply to the Contractor and Owner. The Contractor shall be fully aware of the capability of each Subcontractor and/or Supplier included in its bid, including but not limited to technical ability, financial stability and ability to maintain the proposed construction schedule.

- 3.6.7 ADD a new paragraph 3.6.7 as follows:

- 3.6.7 Where provided in the Contract, the Owner may assign to the Contractor, and the Contractor agrees to accept, any contract procured by the Owner for Work or services required on the Project that has been pre-tendered or pre-negotiated by the Owner, and upon such assignment, the Owner shall have no further liability to any party for such contract, it being acknowledged and agreed by the Contractor that the Contractor, in assuming such contract, shall be the constructor for the contract and is responsible for all health and safety obligations therein and therefor.

3.6.8 ADD a new paragraph 3.6.8 as follows:

- 3.6.8 The Contractor covenants that each subcontract or supply contract which the Contractor enters into for the purpose of performing the Work shall expressly provide for the assignment thereof to the Owner (at the option of the Owner) and the assumption by the Owner of the obligations of the Contractor thereunder, upon the termination of the Contract and upon written notice by the Owner to the other parties to such subcontracts or supply contracts, without the imposition of further terms or conditions; provided, however, that until the Owner has given such notice, nothing herein contained shall be deemed to create any contractual or other liability upon the Owner for the performance of obligations under such subcontracts or supply contracts and the Contractor shall be fully responsible for all of its obligations and liabilities (if any) under such subcontracts and supply contracts.

GC 3.7 Labour and Products

3.7.3 DELETE 3.7.3 and substitute with the following:

- 3.7.3 Products provided shall be new and shall conform to all current applicable specifications of the Canadian Standards Association, Canadian Standards Board or General Standards Board, ASTM, Ontario Building Code, Ontario Fire Code, fire safety standards, and all governmental authorities and regulatory agencies having jurisdiction at the Place of the Work, unless otherwise specified. Products which are not specified shall be of a quality consistent with those specified and their use acceptable to the Consultant. Products brought on to the Place of the Work by the Contractor shall be deemed to be the property of the Owner, but the Owner shall be under no liability for loss thereof or damage thereto arising from any cause whatsoever. The said Products shall be at the sole risk of the Contractor. Workmanship shall be, in every respect, first class and the Work shall be performed in accordance with the best modern industry practice. Any alternative Products proposed by the *Contractor* after award shall demonstrate how it shall offer a benefit to the *Owner* in terms of cost, performance quality or schedule before any such alternative Product is incorporated into the *Work*.

3.7.4 ADD a new Paragraph 3.7.4 to read:

- “3.7.4 The *Contractor* shall pay all the workmen engaged by him in carrying out the *Work* not less than the minimum wages and employ them not more than the maximum hours of labour, as recognized for the respective workmen engaged and branches of trade in force for the *Place of the Work* and such legislation in effect in Province of Ontario.”

3.7.5 ADD new Paragraph 3.7.5 to read:

- “3.7.5 The *Contract* Base Bid shall be based on the materials, equipment and apparatus specified in the *Specifications*.

Contractors may quote alternatives if so requested in the Supplementary Bid Form. All manufactured articles, materials and equipment shall be applied, installed, connected, erected, tested and cleaned and conditioned as directed by the manufacturers unless specified to the contrary.”

3.7.6 ADD new Paragraph 3.7.6 to read:

“3.7.6 There are no Construction Trade Union Requirements for this Project.

GC 3.8 Shop Drawings

3.8.8 ADD a new paragraph 3.8.8 as follows:

“3.8.8 The Contractor shall maintain a copy of all Construction Documents on site and red line all changes or modifications that will serve as the basis for the preparation of As-Built Drawings.”

GC 3.9 Contractor Standard of Care

ADD a new General Condition 3.9—CONTRACTOR STANDARD OF CARE as follows:

- 3.9.1 In performing its services and obligations under the Contract, the Contractor shall exercise the standard of care, skill and diligence that would normally be provided by an experienced and prudent contractor supplying similar services for similar projects. The Contractor acknowledges and agrees that throughout the Contract, the performance of the Contractor’s obligations, duties and responsibilities shall be judged against this standard. The Contractor shall exercise the same standard of care, skill and diligence in respect of any Products, personnel or procedures which it may recommend to the Owner.
- 3.9.2 The Contractor further represents, covenants and warrants to the Owner that:
- .1 the personnel it assigns to the Project are appropriately experienced;
 - .2 it has a sufficient staff of qualified and competent personnel to replace any of its appointed representatives, subject to the Owner’s approval, in the event of death, incapacity, removal or resignation; and
 - .3 there are no pending, threatened or anticipated claims, liabilities or contingent liabilities that would have a material effect on the financial ability of the Contractor to perform its work under the Contract.

GC 3.10 Occupancy of the Work

ADD a new General Condition 3.10- OCCUPANCY OF THE WORK as follows:

- 3.10.1 The Owner reserves the right to take possession of and use for any intended purpose any portion or all of the undelivered portion of the Project even though the Work may not be substantially performed, provided that such taking possession and use will not interfere, in any material way, with the progress of the Work. The taking of possession or use of any such portion of the Project shall not be deemed to be the Owner’s acknowledgement or acceptance of the Work or the Project, nor shall it relieve the Contractor of any of its obligations under the Contract.
- 3.10.2 Whether the Project contemplates Work by way of renovations in buildings which will be in use or be occupied during the course of the Work or where the Project involves Work that is adjacent to a structure which is in use or is occupied, the Contractor, without in any way limiting its responsibilities under the Contract, shall take all reasonable steps to avoid interference with fire exits, building access and egress, continuity of electric power and all

other utilities, to suppress dust and noise and to avoid conditions likely to propagate mould or fungus of any kind and all other steps reasonably necessary to promote and maintain the safety and comfort of the users and occupants of such structures or adjacent structures.

- 3.10.3 The Owner shall have the right to enter or, if compliant with the Ontario Building Code, occupy the Work in whole or in part for the purpose of placing fittings and equipment, or for other use before Substantial Performance of the Work, if, in the opinion of the Consultant, such entry and occupation does not prevent or substantially interfere with the Contractor in the performance of the Contract within the Contract Time. Such entry or occupation shall neither be considered as acceptance of the Work, nor in any way relieve the Contractor from its responsibility to complete the Contract.

GC 4.1 Cash Allowances

ADD a new paragraph 4.1.8 as follows:

- 4.1.8 The Owner reserves the right to call, or to have the *Contractor* call, for competitive bids for portions of the Work, which are to be paid for from cash allowances.

ADD a new paragraph 4.1.9:

- 4.1.9 Any moneys spent from the cash allowances must be authorized by a Cash Allowance Authorization document from the Owner.

GC 5.0 Proper Invoices

- 5.0 Add a new GC 5.0 – PROPER INVOICES as follows:

“GC 5.0 PROPER INVOICES

- 5.0.1 On the 25th day of each month during the Contract Time, the Contractor will deliver to the Consultant a draft invoice of the Contractor’s proposed application for payment for all of the Work performed by the Contractor in that month, including an estimate of the Work to be performed and Products to be delivered at the date of such application for payment but before the end of that month, in order to facilitate and expedite payments under GC 5.2 – APPLICATIONS FOR PAYMENT, GC 5.3 – PAYMENT and GC 5.5 – FINAL PAYMENT.
- 5.0.2 The Contractor shall review with the Consultant and the Owner, at a scheduled time, the draft invoice and application for payment and the percentage of the Work completed for each item indicated in the schedule of values. This procedure shall be complied with for each draft invoice and application for payment.
- 5.0.3 Nothing in paragraphs 5.0.1 or 5.0.2 is intended to condition, pre-condition, prevent or delay the Contractor’s right to submit its applications for payment in accordance with this Contract and the Construction Act.”

GC 5.1 Financing Information Required of the Owner

DELETE GC 5.1 FINANCING INFORMATION REQUIRED OF THE OWNER in its entirety.

GC 5.2 Applications for Payment

5.2.1 Delete 5.2.1 and replace it with the following:

“5.2.1 Notwithstanding GC 5.0, the Contractor will submit its applications for payment to the Consultant and the Owner monthly as the Work progresses at least 5 days after the end of the month to which the application for payment relates. The application for payment will indicate any changes, additions or updates made to the draft application submitted in accordance with paragraph 5.0.1.”

5.2.2 Delete 5.2.2 and replace it with the following:

“5.2.2 The Contractor will ensure that each application for payment for Work complies with the requirements set out in this Contract, and will include as part of it application for payment of all the documents and information required in this Part 5 – PAYMENT and required for a Proper Invoice. The Owner may, in its discretion, reject any application for payment that does not comply with GC 5.0, or the Owner may withhold up to 10% of the amounts otherwise payable in relation to that application for payment until such application for payment includes all of the documents and information required of a Proper Invoice and by this Contract and the Construction Act.”.

GC 5.3 Payment

ADD a new paragraph 5.3.2 as follows:

“5.3.2 Payment will be mailed to the Contractor. The payment date shall be the date the cheque is mailed. Delay resulting from mail shall not be used in calculating the payment date or any other date for payment, non-payment or any subject matter that may be the subject of adjudication under the Construction Act.”

GC 5.4 Substantial Performance of the Work And Payment of Holdback

5.4.1 DELETE paragraph 5.4.1 and replace with the following:

5.4.1 The Consultant will review the Work to verify the validity of the application and shall promptly, and in any event, no later than 20 calendar days after receipt of the Contractor's complete deficiency list and application, the Consultant shall:

- .1 prepare a final deficiency list incorporating all items to be completed or corrected. Each item is to have an indicated value for correction or completion. Determination of the value is defined in GC 5.8 – DEFICIENCY HOLDBACK. The final

deficiency list complete with values is to be included with the Consultant's draft verification and shall be reviewed with the Owner prior to 5.4.1.2.

.2 having completed 5.4.1.1, the Consultant shall:

- .1 advise the Contractor in writing that the Work or the designated portion of the Work is not substantially performed and give reasons why, or
- .2 state the date of Substantial Performance of the Work in a certificate and issue a copy of that certificate to each the Owner and the Contractor.

5.4.2 DELETE paragraph 5.4.2 in its entirety.

5.4.5 DELETE paragraph 5.4.5 in its entirety.

5.4.7 ADD new paragraph 5.4.7 as follows:

"5.4.7 Immediately following the issuance by the Consultant of a certificate in accordance with paragraph 5.4.1.2, the Contractor shall, as applicable to the Place of the Work:

- .1 publish a copy of the certificate in a construction trade newspaper in the Province of the Place of the Work (upon publication, the Contractor shall provide the Consultant and the Owner with a certificate of publication from the construction trade newspaper); and
- .2 do such other act as is required by the lien legislation for the Place of the Work to initiate the requisite time period prior to the expiration of the holdback period; and,
- .3 complete the Work within sixty (60) calendar days and no payments will be processed between *Substantial Performance of the Work* and the completion of the Work as deemed by subsection 2(3) of the Construction Act

ADD new paragraph 5.4.8 as follows:

5.4.8 Prior to submitting its written application for Substantial Performance of the Work, the Contractor shall submit to the Consultant all:

- .1 guarantees;
- .2 warranties;
- .3 certificates;
- .4 final testing and balancing reports, as available;
- .5 commissioning reports;
- .6 distribution system diagrams;
- .7 spare parts;
- .8 operations and maintenance manuals, if not previously submitted to Consultant for review of Work;

- .9 samples;
- .10 reports and correspondence from authorities having jurisdiction in the Place of the Work;
- .11 approved shop drawings;
- .12 municipal inspection certificates;
- .13 training manuals and overviews for the Owner's operations staff
- .12 marked-up or red lined drawings from the construction trailer

and other materials or documentation required to be submitted under the Contract, together with written proof acceptable to the Owner and the Consultant that the Work has been substantially performed in conformance with the requirements of municipal, governmental, and utility authorities having jurisdiction in the Place of the Work. The Consultant shall refuse to certify Substantial Performance of the Work if the submittals referred to in this paragraph 5.4.8 are not provided by the Contractor.

ADD a new paragraph 5.4.9 as follows:

- 5.4.9 The Contractor shall submit full and complete digital (CAD and pdf format) As-Built drawings to the Consultant within forty-five (45) days of the issuance of the certificate of Substantial Performance of the Work and the Owner shall be at liberty to withhold, from amounts otherwise payable to the Contractor, an amount not to exceed the greater of i) \$10,000 and ii) one (1%) percent, of the Contract Price as security for the obligation of the Contractor to deliver such digital record or as built drawings.

GC 5.5 Final Payment

- 5.5.1 DELETE paragraph 5.5.1 and REPLACE it with the following:

“5.5.1 When the Contractor has achieved Completion of the Work, the Contractor shall submit an application for final payment, which application shall include all of the documents and information required for a Proper Invoice and required by this Contract. The Contractor must, when applying for final payment, provide the Consultant with evidence satisfactory to the Consultant and the Owner that there are no liens registered against or otherwise claimed in respect of any portion of the Project or attend to vacating same as provided in GC 14.2.”

- 5.5.2 DELETE the words “10 calendar days after the issuance of a final certificate for payment” and replace with “the earlier of 20 calendar days after the issuance of a final certificate for payment and 28 calendar days after the receipt by the Owner of the Contractor's application for final payment that includes all of the documents and information required for a Proper Invoice and by this Contract”.

GC 5.8 Deficiency Holdback

ADD a new General Condition 5.8- DEFICIENCY HOLDBACK as follows:

- 5.8 Notwithstanding any provisions contained in the Contract Documents concerning certification and release of monies to the Contractor, the Owner reserves the right to establish a deficiency holdback

amount of 1% of the Contract Price to ensure a timely correction of all deficiencies and such holdback will be in addition to the monies retained towards the As-Built Drawings as per GC 5.4.9. The *Contractor* shall have 45 Days from the date of *Substantial Performance of the Work* to correct the deficiencies and claim the deficiency holdback amount. If the *Contractor* fails to comply or correct the deficiencies to the reasonable satisfaction of the *Consultant* or the *Owner*, the *Owner* shall use the deficiency holdback monies to use its own forces or employ other *Contractors* to complete or correct the deficiencies. The deficiency holdback shall not limit the *Contractor's* obligation to correct any deficiencies to the Work. After review and verification that all deficiencies are made good to the complete satisfaction of the *Consultant* and the *Owner*, within the 60 day time period from the date of *Substantial Performance of the Work*, the *Consultant* shall issue the Certificate for Payment for deficiency holdback payment based on the corrected Work and any remaining deficiency holdback after application to the *Owner's* costs if required or if elected to correct the deficiencies using its own forces or employing other contractors. The *Owner* shall pay the *Contractor* within 10 Working Days after the receipt of the Certificate including the Proper Invoice and all other required documentation from the *Consultant*."

GC 6.1 Owner's Right to Make Changes

6.1.3 ADD the following as new paragraph 6.1.3:

"6.1.3 In the event of a Change Order or a Change Directive, the Contract Price shall be increased by the amount agreed by the parties based on the incremental cost to the Contractor, including Actual Subcontract Costs, if any, required to be incurred as a result of such Change Order or Change Directive and by an amount equal to five percent (5%) for the Contractor and ten percent (10%) for Subcontractors of such incremental costs, representing a reasonable allowance for additional overhead and profit associated with such Change Order or Change Directive."

6.1.4 ADD a new paragraph 6.1.4 as follows:

"6.1.4 While submitting a price in response to a contemplated change order, value of changes shall be determined on the basis of the cost of *Contractor's* direct costs for the Changes in the *Work* plus a fixed percentage fee to cover the indirect costs such as administration, supervision, overhead and profit as follows:

- .1 *Contractor's* fixed percentage fees while using his own forces shall be:
Net price of materials and *Place of the Work* direct labour including statutory charges and burdens, plus 10% for overhead and profit;
- .2 *Subcontractors'* charges shall be:
Net price of materials and *Place of the Work* direct labour including statutory charges and burdens, plus 10% for overhead and profit;
- .3 *Contractor's* percentage fees on all *Subcontractor's* and *Supplier's* charges shall be no more than 5%;
- .4 The *Contractor* and their *Subcontractors* must provide a sufficient breakdown of the costs involved while submitting a quote for the Changes in the *Work* and assist the *Consultant* and *Owner* to evaluate the quote. The fixed percentage cost must be shown as a separate line item on all quotes.
- .5 Pending final determination of value, payments on account of changes shall be made on the *Consultant's* certificate."

6.1.5 ADD a new paragraph 6.1.5 as follows:

“6.1.6 It will be the *Contractor*’s responsibility to notify the Bonding Company of all changes in the *Work* so that the Performance Bond will not be invalidated. Any change to the Construction Cost by more than 10% shall obligate the Contractor to update all Bonds with the change in value and the cost of same shall be included in the Contractor’s cost for overhead. Contractor shall provide evidence of any such amended Bonds to reflect this change in value from time to time.”

6.1.4 ADD the following as a new paragraph 6.1.4:

“6.1.4 Quotations for changes to the Work shall be accompanied by itemized breakdowns together with detailed, substantiating quotations or cost vouchers from Subcontractors and Suppliers, submitted in a format acceptable to the Consultant and including any costs associated with extensions in Contract Time. The Contractor agrees that changes resulting from construction coordination, including but not limited to, site surface conditions, site coordination, and Subcontractor and Supplier coordination are included in the Contract Price and the Contractor shall be precluded from making any claim for a change in the Contract Price as a result of such changes. When a change in the Work is proposed or required, the Contractor shall within 10 calendar days submit to the Consultant for review a claim for a change in Contract Price and/or Contract Time. Should 10 calendar days be insufficient to prepare the submission, the Contractor shall within 5 calendar days, advise the Consultant in writing of the proposed date of submission of the claim. Claims submitted after the dates prescribed herein will not be considered.

GC 6.2 Change Order

6.2.1 DELETE the words “method of adjustment or” in the third line of paragraph 6.2.1.

ADD the words “in accordance with paragraph 6.1.3,” immediately following the words “Contract Price, if any,” in the third line of paragraph 6.2.1.

ADD a new paragraph 6.2.3 as follows:

“6.2.3 Allowances for overhead and profit shall cover all of the General Contractor's and Subcontractor's administrative and incidental costs relating to a change including, without limitation, costs relating to project managers, superintendents, assistants, watchpersons and administrative personnel, shop drawing production, head office and site office expenses, worker tools, temporary facilities, bonds, insurance, transportation, as-built drawings, cleanup and disposal of waste materials”.

ADD a new paragraph 6.2.4 as follows:

6.2.4 Any change order agreed between the parties shall include any resulting change to the Contract Price or Contract Schedule and all of the Contractor’s direct or indirect costs resulting from the change order or changes to the Project. The change order shall be full compensation for the amendment to the Work, Project or Schedule. Any change order shall be deemed to be inclusive of all Contractor compensation for any impact that the change may have caused. The Contractor shall release the Owner from any and all liability, claims, damages, losses or costs related to the change or the change order.”

ADD new paragraph 6.2.5

6.2.5 The method of adjustment of the *Contract Price* presented by the *Contractor* may be:

- .1 by quotation and acceptance of a lump sum. All quotations must contain an itemized and complete breakdown of costs, including hours and hourly rates of labour, payroll burden, itemized costs of materials, quantity of materials, *Products*, and all other costs to perform the change in the *Work*, including the *Contractor's* mark-up fee set out in GC 6.1.3 and 6.1.4, such that the quotations are capable of being evaluated by the *Consultant*. The *Contractor* shall require *Subcontractors* and *Suppliers* to supply similar information to the *Consultant* or
- .2 by unit prices set out in the Schedule of Prices listed in Article A-3 – CONTRACT DOCUMENTS or subsequently agreed upon in writing by the parties. Unit prices shall include materials, labour, equipment, delivery, freight, handling, disposal, statutory charges, supervisions, testing, all applicable duties, brokerage charges, import charges, taxes, bonding, overhead, profit and all relative charges and expenses including, but not limited to, office administration charges such as disbursements, travel costs, printing and incidentals to the *Contractor*, and shall be the total cost to the *Owner*. Adjustment to the *Contract Price* shall be based on a net quantity difference from the original quantity.

GC6.3 Change Directive

6.3.6 ADD the words “in accordance with paragraph 6.1.3” immediately following the word “determined” in the first line of paragraph 6.3.6.

6.3.14 ADD new paragraph 6.3.14 as follows:

”6.3.14 Notwithstanding the costs set out in paragraph 6.3.7, the actual costs payable to the Contractor under a Change Directive shall not exceed the percentage increase contemplated in general condition 6.1 and 6.2 for the calculation of *Change Orders*. Any over payment or underpayment upon execution of the *Change Order* resulting from a *Change Directive* shall be adjusted on the next Proper Invoice or upon release of the final holdback following *Substantial Performance of the Work*.

GC 6.4 Concealed or Unknown Conditions

DELETE paragraph 6.4.1 and replace with the following:

- 6.4.1.1 Prior to the submission of the bid on which the Contract was awarded, the Contractor confirms that it investigated the Place of the Work and, in doing so, applied to that investigation the degree of care and skill required by paragraph 3.9.1.
- 6.4.1.2 The Contractor is deemed to assume all risk of conditions or circumstances now existing or arising in the course of the Work which could make the work more expensive or more difficult to perform than was contemplated at the time the Contract was executed. No claim by the Contractor will be considered by the Owner or the Consultant in connection with

conditions which could reasonably have been ascertained by such investigation or other due diligence undertaken prior to the execution of the Contract.

Amend paragraph 6.4.2 by adding a new first sentence as follows:

Having regard to paragraph 6.4.1, if the Contractor believes that the conditions of the Place of the Work differ materially from those reasonably anticipated, differ materially from those indicated in the Contract Documents or were concealed from discovery notwithstanding the conduct of the investigation described in paragraph 6.4.1, it shall provide the Owner and the Consultant with Notice in Writing no later than five (5) Working Days after the first observation of such conditions.

Amend the existing second sentence of paragraph 6.4.2 in the second line, following the word “materially” by adding the words “or were concealed from discovery notwithstanding the conduct of the investigation described in paragraph 6.4.1,”

DELETE paragraph 6.4.3 in its entirety and substitute the following:

6.4.3 If the Consultant makes a finding pursuant to paragraph 6.4.2 that no change in the Contract Price or the Contract Time is justified, the Consultant shall report in writing the reasons for this finding to the Owner and the Contractor.

ADD a new paragraph 6.4.5 as follows:

6.4.5 No claims for additional compensation or for an extension of Contract Time shall be allowed if the Contractor fails to give Notice in Writing to the Owner or Consultant, as required by paragraph 6.4.2.

GC 6.5 Delays

6.5.1 DELETE the words after the word “for” in the fourth line of paragraph 6.5.1, and add the words “...reasonable direct costs directly flowing from the delay, but excluding any consequential, indirect or special damages (including, without limitation, loss of profits, loss of opportunity or loss of productivity).”

6.5.2 DELETE the words after the word “for” in the last sentence of paragraph 6.5.2, and add the words “...reasonable direct costs directly flowing from the delay, but excluding any consequential, indirect or special damages (including, without limitation, loss of profits, loss of opportunity or loss of productivity).”

6.5.3 DELETE paragraph 6.5.3 in its entirety and REPLACE it with the following:

“6.5.3 If the Contractor is delayed in the performance of the Work by Force Majeure, then the Contract Time shall be extended, and the Construction Schedule adjusted, for such reasonable time as the Consultant may recommend in consultation with the Contractor. The extension of time shall not be less than the time lost as a result of the event causing the delay, unless the Contractor agrees to a shorter extension. The *Contractor* shall not be entitled to payment for costs incurred by such delays unless such delays result from the actions of the *Owner*.”

6.5.6 ADD new paragraphs 6.5.6, 6.5.7 and 6.5.8 as follows:

- 6.5.6 If the Contractor is delayed in the performance of the Work by an act or omission of the Contractor or anyone directly or indirectly employed or engaged by the Contractor, or by any cause within the Contractor's control, then the Contract Time may be extended for such reasonable time as the Owner may decide in consultation with the Consultant and the Contractor. The Owner shall be reimbursed by the Contractor for all reasonable costs incurred by the Owner as the result of such delay, including, but not limited to, the cost of all additional services required by the Owner from the Consultant or any sub-consultants, project managers, or others employed or engaged by the Owner, and in particular, the costs of the Consultant's services during the period between the date of Substantial Performance of the Work stated in Article A-1 herein, as the same may be extended through the provision of these General Conditions, and any later or actual date of Substantial Performance of the Work achieved by the Contractor. The Contractor acknowledges that the Contract Time is a material component to the Contract Reasonable costs and damages incurred by the Owner as a result of the delays identified in this Contract may also include, without limitation, student and staff relocation costs and expenses.
- 6.5.7 Without limiting the obligations of the Contractor described in GC 3.2 – CONSTRUCTION BY OWNER OR OTHER CONTRACTORS or GC 9.4 – CONSTRUCTION SAFETY, the Owner or Consultant may, by notice in writing, direct the Contractor to stop the Work where the Owner or Consultant determines that there is an imminent risk to the safety of persons or property at the Place of the Work. In the event that the Contractor receives such notice, it shall immediately stop the Work and secure the site. The Contractor shall not be entitled to an extension of the Contract Time or to an increase in the Contract Price unless the resulting delay, if any, would entitle the Contractor to an extension of the Contract Time or the reimbursement of the Contractor's costs as provided in paragraphs 6.5.1, 6.5.2 or 6.5.3.
- 6.5.8 No claim for delay shall be made and the Contract Time shall not be extended due to climatic conditions or arising from the Contractor's efforts to maintain the Contract schedule.

GC 7.1 Owners Right to Perform the Work, Terminate the Contractor's Right to Continue with the Work or Terminate the Contract

7.1.2 DELETE paragraph 7.1.2 in its entirety and replace it with the following:

- 7.1.2 If the Contractor should neglect to prosecute the Work properly, fails or neglects to maintain the latest schedule provided pursuant to GC 3.5, or otherwise fails to comply with the requirements of the Contract, and if the Consultant has given a written statement to the Contractor that sufficient cause exists to justify such action, the Owner may notify the Contractor, in writing, that the Contractor is in default of the Contractor's contractual obligations and instruct the Contractor to correct the default in the five (5) Working Days immediately following the receipt of such notice.

7.1.3.4 ADD a new subparagraph 7.1.3.4 as follows:

- 7.1.3.4 An "acceptable schedule" as referred to in subparagraph 7.1.3.2. means a schedule approved by the Consultant and the Owner wherein the default can be corrected within the balance of the Contract Time and shall not cause delay to any other aspect of the Work or the work of other contractors, and in no event shall it be deemed to give a right to extend the Contract Time.

7.1.4.1 In paragraph 7.1.4.1, delete sentence and replace with the following:

Correct such default and deduct the cost, including Owner's expenses, thereof from any payment then or thereafter due the Contractor.

In subparagraph 7.1.5.3 delete the words: "however, if such cost of finishing the Work is less than the unpaid balance of the Contract Price, the Owner shall pay the Contractor the difference;"

DELETE paragraph 7.1.6 in its entirety and add new paragraphs 7.1.6, 7.1.7, 7.1.8, 7.1.9, 7.1.10 and 7.1.11 as follows:

- 7.1.6 In addition to its right to terminate the Contract set out herein, the Owner may terminate this Contract at any time for any other reason and without cause upon giving the Contractor fifteen (15) Working Days Notice in Writing to that effect. In such event, the Contractor shall be entitled to be paid for all Work performed including reasonable profit, for loss sustained upon Products and Construction Equipment, and such other damages as the Contractor may have sustained as a result of the termination of the Contract, but in no event shall the Contractor be entitled to be compensated for any loss of profit on unperformed portions of the Work, or indirect, special, or consequential damages incurred.
- 7.1.7 The Owner may suspend Work under this Contract at any time for any reason and without cause upon giving the Contractor Notice in Writing to that effect. In such event, the Contractor shall be entitled to be paid for all Work performed to the date of suspension and be compensated for all actual costs incurred arising from the suspension, including reasonable profit, for loss sustained upon Products and Construction Equipment, and such other damages as the Contractor may have sustained as a result of the suspension of the Work, but in no event shall the Contractor be entitled to be compensated for any indirect, special, or consequential damages incurred. In the event that the suspension continues for more than sixty (60) calendar days, the Contract shall be deemed to be terminated and the provisions of paragraph 7.1.6 shall apply.
- 7.1.8 In the case of either a termination of the Contract or a suspension of the Work under GC 7.1 - OWNER'S RIGHT TO PERFORM THE WORK, TERMINATE THE CONTRACTOR'S RIGHT TO CONTINUE WITH THE WORK, SUSPEND THE WORK, OR TERMINATE THE CONTRACT or GC 7.2 - CONTRACTOR'S RIGHT TO SUSPEND THE WORK OR TERMINATE THE CONTRACT, the Contractor shall use its best commercial efforts to mitigate the financial consequences to the Owner arising out of the termination or suspension, as the case may be.
- 7.1.9 Upon the resumption of the Work following a suspension under GC 7.1 - OWNER'S RIGHT TO PERFORM THE WORK, TERMINATE THE CONTRACTOR'S RIGHT TO CONTINUE WITH THE WORK, SUSPEND THE WORK OR TERMINATE THE CONTRACT or GC 7.2 - CONTRACTOR'S RIGHT TO SUSPEND THE WORK OR TERMINATE THE CONTRACT, the Contractor will endeavour to minimize the delay and financial consequences arising out of the suspension.
- 7.1.10 The Contractor's obligations under the Contract as to quality, correction, and warranty of the Work performed by the Contractor up to the time of termination or suspension shall continue after such termination of the Contract or suspension of the Work.
- 7.1.11 Upon a termination of the Contract, the Owner may, but is not obliged to, publish a notice of termination in the form and manner prescribed in the Construction Act, if applicable.

For greater certainty, a termination in accordance with this GC 7.1 will be effective whether or not a notice of termination is published.”

GC 7.2 Contractor’s Right to Suspend the Work or Terminate the Contract

- .1 DELETE paragraph 7.2.2 in its entirety.
- .2 DELETE subparagraphs 7.2.3.1, 7.2.3.2 and 7.2.3.3 in their entirety.
- .3 DELETE the words “except for GC 5.1-FINANCING INFORMATION REQUIRED OF THE OWNER.” in subparagraph 7.2.3.4.
- .4 Renumber paragraph 7.2.5 as paragraph 7.2.6. Add a new paragraph 7.2.5 as follows:
 - 7.2.5 If the default cannot be corrected within the 5 Working Days specified in paragraph 7.2.4, the Owner shall be deemed to have cured the default if it:
 - .1 commences correction of the default within the specified time;
 - .2 provides the Contractor with an acceptable schedule for such correction; and,
 - .3 completes the correction in accordance with such schedule.
- .5 Delete paragraph 7.2.6 entirely and replace with the following:
 - 7.2.6 If the Contractor terminates the Contract under the conditions described in GC 7.2 – CONTRACTOR’S RIGHT TO SUSPEND THE WORK OR TERMINATE THE CONTRACT, the Contractor shall be entitled to be paid for all Work performed to the date of termination, as determined by the Consultant. The Contractor shall also be entitled to recover the direct costs associated with termination, including the costs of demobilization and losses sustained on Products and Construction Equipment. The Contractor shall not be entitled to any recovery for any special, indirect or consequential losses, including loss of profit.
- .6 Add new paragraphs 7.2.7, 7.2.8 and 7.2.9 as follows
 - 7.2.7 The Contractor shall not be entitled to give notice of the Owner’s default or terminate the Contract in the event the Owner withholds certificates or payment or both in accordance with the Contract because of:
 - (a) the Contractor’s failure to pay all legitimate claims promptly, or
 - (b) the failure of the Contractor to discharge construction liens which are registered against the title to the Place of the Work.
 - 7.2.8 The Contractor’s obligations under the Contract as to quality, correction and warranty of the Work performed by the Contractor up to the effective date of

termination shall continue in force and shall survive termination by the Contractor in accordance with paragraph 7.2.4.

- 7.2.9 If the Contractor suspends the Work or terminates the Contract as provided for in GC 7.2 – CONTRACTOR’S RIGHT TO SUSPEND THE WORK OR TERMINATE THE CONTRACT, the Contractor shall ensure the site and the Work are left in a safe, secure condition as required by authorities having jurisdiction at the Place of the Work and the Contract Documents.

GC 8.1 Authority of the Consultant

- 8.1.2 DELETE paragraph 8.1.2 and REPLACE it with the following:

“8.1.2 If a dispute arises under the Contract in respect of a matter in which the Consultant has no authority under the Contract to make a finding, the procedures set out in GC 8.3 - NEGOTIATION, MEDIATION, AND ARBITRATION and GC 8.4 - RETENTION OF RIGHTS apply to that dispute with the necessary changes to detail as may be required.”

- 8.1.3 DELETE paragraph 8.1.3 and REPLACE it with the following:

“8.1.3 If a dispute is not resolved promptly, the Consultant will give such instruction as in the Consultant’s opinion are necessary for the proper performance of the Work and to prevent delays pending settlement of the dispute. The parties shall act immediately according to such instructions, it being understood that by doing so neither party will jeopardize any claim the party may have.”

GC 8.2 Adjudication

- 8.2.2 ADD new paragraph 8.2.2 as follows:

8.2.2 In addition to disputes that may be resolved by way of interim binding adjudication under the Construction Act, the parties may agree to resolve any other matter by interim binding adjudication under the same adjudication procedures as set out in the Construction Act. Subject to any further agreement or a decision by a court or arbitrator, a determination by an adjudicator will be binding on the parties in accordance with the Construction Act, and any instructions by the Consultant under GC 8.1 will be amended accordingly as necessary.

GC 8.3 Negotiation, Mediation, and Arbitration

- 8.3.9 ADD new paragraph 8.3.9 as follows:

“8.3.9 Notwithstanding anything else in this Contract, in the event of a dispute relating to payment arising prior to the Completion of the Work, the parties shall adjudicate such dispute if permitted under, and in accordance with, the applicable Construction Act.

- 8.3.10 ADD new paragraph 8.3.10 as follows:

“8.3.10 The parties acknowledge and agree that the adjudication of a dispute in accordance with the applicable Construction Act will not pause, withdraw, discontinue, or prejudice any mediation, arbitration, or court proceeding that relates to the same matter and that was commenced prior to or after the delivery of a notice of adjudication under the applicable Construction Act relating to a dispute, unless the parties otherwise agree in writing.”

GC 9.1 Protection of Work and Property

Delete subparagraph 9.1.1.1 in its entirety and substitute the following:

- 9.1.1.1 errors in the Contract Documents which the Contractor could not have discovered applying the standard of care described in paragraph 3.9.1;

Delete paragraph 9.1.2 in its entirety and substitute as follows:

- 9.1.2 Before commencing any Work, the Contractor shall determine the locations of all underground or hidden utilities and structures indicated in or inferable from the Contract Documents, or that are inferable from an inspection of the Place of the Work exercising the degree of care and skill described in paragraph 3.9.1.

Add new paragraph 9.1.5 as follows:

- 9.1.5 With respect to any damage to which paragraphs 9.1.3 or 9.1.4 apply, the Contractor shall neither undertake to repair or replace any damage whatsoever to the work of other contractors, or to adjoining property, nor acknowledge that the same was caused or occasioned by the Contractor, without first consulting the Owner and receiving written instructions as to the course of action to be followed from either the Owner or the Consultant. Where, however, there is danger to life, the environment, or public safety, the Contractor shall take such emergency action as it deems necessary to remove the danger.

GC 9.4 Construction Safety

Delete paragraph 9.4.1 in its entirety and substitute as follows:

- 9.4.1 The Contractor shall, at its sole cost, be solely responsible for construction safety at the Place of the Work and for compliance with the rules, regulations, and practices required by the applicable construction health and safety legislation and shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the Work.

ADD new paragraphs 9.4.6 to 9.4.14 as follows:

- 9.4.6 Prior to the commencement of the Work, the Contractor shall submit to the Owner:
- .1 the evidence of workplace safety/workers' compensation compliance required by GC 10.4.1;
 - .2 copies of the Contractor's insurance policies having application to the Project or certificates of insurance, at the option of the Owner;
 - .3 documentation setting out the Contractor's in-house safety programs;
 - .4 copies of any documentation or notices to be filed or delivered to the authorities having jurisdiction for the regulation of occupational health and safety at the Place of the Work.
- 9.4.7 The Contractor shall indemnify and save harmless the Owner, its agents, trustees, officers, directors, employees, consultants, successors, appointees, and assigns from and against the

consequences of any and all safety infractions committed by the Contractor under the occupational health and safety legislation in force at the Place of the Work including the payment of legal fees and disbursements on a substantial indemnity basis.

- 9.4.8 The Owner undertakes to include in its contracts with other contractors and in its instructions to its own forces the requirement that the other contractor or its own forces, as the case may be, comply with the policies and procedures of and the directions and instructions from the Contractor with respect to occupational health and safety and related matters.
- 9.4.9 If the Owner is of the reasonable opinion that the Contractor has not taken such precautions as are necessary to ensure compliance with the requirements of paragraph 9.4.1, the Owner may take any remedial measures which it deems necessary, including stopping the performance of all or any portion of the Work, and the Owner may use its employees, the Contractor, any Subcontractor or any other contractors to perform such remedial measures.
- 9.4.10 The Contractor shall file any notices or any similar document required pursuant to the Contract or the safety regulations in force at the Place of the Work. This duty of the Contractor will be considered to be included in the Work and no separate payment therefore will be made to the Contractor.
- 9.4.11 Unless otherwise provided in the Contract Documents, the Contractor shall develop, maintain and supervise for the duration of the Work a comprehensive safety program that will effectively incorporate and implement all required safety precautions. The program shall, at a minimum, respond fully to the applicable safety regulations and general construction practices for the safety of persons or property, including, without limitation, any general safety rules and regulations of the Owner and any workers' compensation or occupational health and safety statutes or regulations in force at the Place of the Work.
- 9.4.12 The Contractor shall provide a copy of the safety program described in paragraph 9.4.7 hereof to the Consultant for delivery to the Owner prior to the commencement of the Work, and shall, ensure, as far as it is reasonably practical to do so, that every employer and worker performing work in respect of the Project complies with such program.
- 9.4.13 The Contractor shall arrange regular safety meetings, and shall supply and maintain, at its own expense, at its office or other well-known place at the job site, safety equipment necessary to protect the workers and general public against accident or injury as prescribed by the authorities having jurisdiction at the Place of the Work, including, without limitation, articles necessary for administering first-aid to any person and an emergency procedure for the immediate removal of any injured person to a hospital or a doctor's care.
- 9.4.14 The Contractor shall promptly report in writing to the Owner and the Consultant all accidents of any sort arising out of or in connection with the performance of the Work, whether on or adjacent to the job site, giving full details and statement of witnesses. If death or serious injuries or damages are caused, the accident shall be promptly reported by the Contractor to the Owner and the Consultant by telephone or messenger in addition to any reporting required under the applicable safety regulations.

GC 10.1 Taxes and Duties

Amend paragraph 10.1.2 by adding the following sentence to the end of the paragraph:

For greater certainty, the Contractor shall not be entitled to any mark-up for overhead or profit on any increase in such taxes and duties and the Owner shall not be entitled to any credit relating to mark-up for overhead or profit on any decrease in such taxes. The Contractor shall provide a detailed breakdown of additional taxes if requested by the Owner in a form satisfactory to the Owner.

Add new paragraph 10.1.3 as follows:

10.1.3 Where the Owner is entitled to an exemption or a recovery of sales taxes, customs duties, excise taxes or Value Added Taxes applicable to the Contract, the Contractor shall, at the request of the Owner, assist with the application for any exemption, recovery or refund of all such taxes and duties and all amounts recovered or exemptions obtained shall be for the sole benefit of the Owner. The Contractor agrees to endorse over to the Owner any cheques received from the federal or provincial governments, or any other taxing authority, as may be required to give effect to this paragraph.

GC 10.2 Laws, Notices, Permits and Fees

Amend paragraph 12.2.2 by adding the words at the end

“The Contractor shall pay for, post, deliver and provide all required security deposits, development charges or similar levies required by the municipality, school boards or other public authorities having jurisdiction that are required to be paid at the same time as the issuance of any required permit, consent, approval or similar authorization to proceed with the Work.”

Amend paragraph 10.2.5 by adding the words

“Subject to paragraph 3.4” at the beginning of the paragraph. Add the following to the end of the second sentence: “...and no further Work on the affected components of the Contract shall proceed until these directives have been obtained by the Contractor from the Consultant.”

Amend paragraph 10.2.6 by adding the following sentence to the end of the paragraph:

In the event the Owner suffers loss or damage as a result of the Contractor’s failure to comply with paragraph 10.2.5 and notwithstanding any limitations described in paragraph 12.1.1, the Contractor agrees to indemnify and to hold harmless the Owner and the Consultant from and against any claims, demands, losses, costs, damages, actions suits or proceedings resulting from such failure by the Contractor.

Add new paragraph 10.2.8 as follows:

10.2.8 The Contractor shall furnish all certificates that are required or given by the appropriate governmental authorities as evidence that the Work as installed conforms with the laws and regulations of authorities having jurisdiction, including certificates of compliance for the Owner’s occupancy or partial occupancy. The certificates are to be final certificates giving complete clearance of the Work, in the event that such governmental authorities furnish such certificates.

GC 11.1 Insurance

Delete the entirety of general condition 11.1 and CCDC 41 and replace with the following:

- 11.1.1 Without restricting the generality of GC 13 – INDEMNIFICATION AND WAIVER, or the responsibility of the *Contractor* under the *Contract*, insurance coverage will be arranged and paid for as follows:

11.1.2 PROJECT- SPECIFIC INSURANCE

.1 Contractor Procured Insurance Coverage

The Contractor shall purchase and maintain the following types of insurance policies issued by insurance companies licensed to carry on business in Ontario:

.1 “All Risks” Builders’ Risk and Boiler & Machinery Insurance Coverage

This policy shall cover all risks of direct physical loss or damage to the Project, including the perils of earthquake and flood, subject to customary exclusions. It shall cover all property forming part of the Project, including goods and materials to be incorporated in the Project while at the Project site or while in off-site storage. It shall not provide coverage for contractors’ equipment other than scaffolding, formwork, fences, shoring, hoarding, falsework, tarpaulins and temporary buildings in connection with the construction operations.

It shall be written in the joint names of the *Owner*, *Contractor*, *Subcontractors* of all tiers and the *Consultant* engaged on the *Project*, and exclude any such entities whose only function is to supply and/or transport materials, machinery or supplies to the Project site and who do not perform any installation or construction work at the *Project* site.

It shall provide for a limit of coverage not less than the estimated final completed value of the *Project*, with a specified sub-limit for property in off-site storage and specified sub-limit for transit risk. It may also contain other sub-limits usual to this type of insurance. It shall contain a waiver of the Insurer’s subrogation rights against all Insureds and their officers, employees, servants, and agents, with the exception of architects, engineers, manufacturers and consultants for their errors or omissions in professional services. Furthermore, it shall provide that, in the event of loss or damage, payment shall be made to the *Owner* as their respective interests may appear and as trustees for the benefit of any and all Insureds.

This policy shall be maintained continuously from commencement of the *Work* until the date of *Ready-for-Takeover*. Terms and conditions are for this anticipated period at project award and any extensions to this period will be subject to change based on market conditions.

.2 Wrap-Up Liability Policy

This policy shall cover the risks of liability for bodily injury, including death and property damage arising from activities at the Project site, subject to customary exclusions. It shall be written in the joint names of the *Owner*, *Contractor*, *Subcontractors* of all tiers and *Consultant* engaged on the *Project*, excluding any such entities whose only function is to supply and/or transport materials, machinery or supplies to the *Project* site and who do not perform any installation or construction work at the Project site. It shall provide for a limit of liability not less than \$10,000,000 per occurrence for bodily injury, death, and damage to property including loss of use thereof, and a deductible of not more than \$50,000 per occurrence.

This policy shall include the following coverage features:

- a. Premises and Operations Liability;
- b. Owners' and Contractors' Protective Liability;
- c. Products and Completed Operations Liability (Aggregate Limit);
- d. Blanket Contractual Liability;
- e. Cross Liability and Severability of Interests Clause;
- f. Contingent Employer's Liability;
- g. Personal Injury Liability;
- h. "Occurrence" basis coverage for Bodily Injury and Property Damage;
- i. "Broad Form" Property Damage coverage, including "Broad Form" Completed Operations coverage;
- j. "Broad Form" Loss of Use of Property coverage;
- k. Coverage for shoring, blasting, excavating, underpinning, demolition, pile driving, caisson work, grading, tunnelling, and all work below ground surface;
- l. Non-Owned Automobile Liability insurance, including third party liability arising from use and operation of hired vehicles.
- m. Sudden and Accidental limited pollution coverage – IBC 2313 Form 240 hour detection and reporting.

This insurance shall be maintained continuously from commencement of the Work until the date of *Ready-for-Takeover*. The Products-Completed Operations Hazard coverage shall be for not less than 24 Months after the date of *Ready-for-Takeover*.

.2 Evidence of Project-Specific Policies to be provided

The *Contractor* shall promptly provide a Certificate of Insurance to any Insured Party upon request as evidence of the project-specific policies procured by the *Contractor*.

.3 Supplementary Insurance

The Owner does not represent that the project-specific insurance policies described in this Article 11.1.2 will be sufficient to protect the *Contractor* or any other Insured Parties against all of their responsibilities under this contract. The *Contractor* and any other Insured Parties may obtain such additional insurance as they may consider necessary at their own expense.

11.1.3 OTHER INSURANCE

.1 Contractor Insurance

The *Contractor* shall purchase and maintain the following types of insurance policies issued by insurance companies licensed to carry on business in Ontario. The *Contractor* shall also require such insurance to be purchased and maintained, as applicable, by all *Subcontractors* engaged on the *Project* as described in this Article 11.1.3.

Unless specified otherwise, the duration of each such insurance policy shall be from the date of commencement of the *Work* until the *Project* has been finally accepted by the *Owner*.

.1 Automobile Insurance

This insurance shall cover all licensed vehicles owned or leased for period in excess of 30 days by the *Contractor*. It shall provide for third party liability limits not less than \$5,000,000 inclusive for bodily injury and property damage plus statutory accident benefits.

.2 Contractors' Equipment Insurance

This policy shall cover all tools and equipment used at the project site by, or on behalf of, the *Contractor* against all risks of direct physical loss or damage, including the perils of earthquake and flood, subject to customary exclusions. This insurance shall be maintained continuously from commencement of the *Work* until all construction, erection, installation and testing has been completed and the *Project* has been finally accepted.

All such Contractors' Equipment Insurance policies shall contain a waiver of subrogation against the *Owner*, *Contractor*, and *Consultants* engaged on the *Project*, and shall provide for 30 days prior written notice of cancellation or material change to be given by the insurers to the *Owner*.

.3 Commercial General Liability Insurance

This policy shall cover the risks of liability for bodily injury and property damage arising from the operations and activities on and away from the Project site by the Contractor and shall include coverage for those to whom it is legally liable. This policy shall be subject to limits of liability not less than \$10,000,000 per occurrence and a deductible of not more than \$25,000 per occurrence. It shall include all of the coverage features listed in items (a) to (m) of Article 11.1.2.1.2 of this contract in addition to coverage for difference in conditions and difference in limits in relation to the insurance coverage described in Article 11.1.2.1.2

This insurance shall be maintained continuously from commencement of the *Work* until all construction, erection, installation and testing has been completed and the *Project* has been finally accepted by the *Owner*.

The Products-Completed Operations Hazard coverage shall cover the risks of liability for bodily injury and property damage arising from the operations,

activities and Work performed on and away from the *Project* site and shall be maintained for 24 months after the Project has been finally accepted by the *Owner*.

This insurance shall be secondary, with regards to operations and activities on the *Project* site, to the insurance described in Article 11.1.2.1.2 of this *Contract Document* for the time that such Wrap-Up Liability insurance is maintained, upon which this insurance shall become primary. This insurance shall be primary with regards to operations and activities away from *the Project* site.

.4 Contractor's Pollution Liability Insurance

This policy shall cover claims for bodily injury, property damage, clean-up costs and related legal defence expenses for pollution conditions that result from, or are disrupted by, the services rendered in performance at the *Project* site. This policy shall have limits of not less than \$5,000,000 per occurrence and in the aggregate, and a deductible of not more than \$25,000 per occurrence. Coverage shall include extensions for transported cargo and off-site disposal. The completed operations coverage shall be for not less than 24 Months after acceptance of the *Project* by the *Owner*.

.5 Aircraft, Unmanned Aircraft (Drone) and Watercraft Liability (if applicable)

If the *Work* at the *Project* site involves the use of owned or non-owned aircraft or watercraft directly or indirectly in the performance of *the Work*, appropriate Aircraft Liability and/or Watercraft Liability insurance must be purchased and maintained for the duration of such operations by the party responsible for such operations. This policy shall provide limits of liability not less than \$5,000,000 per occurrence insuring against claims for bodily injury, including death and for property damage arising out of the use of such aircraft, drone or watercraft.

.6 Marine Cargo and Charterer's Liability Insurance (if applicable)

If any property forming part of the Project, including goods and materials to be incorporated into the Project, is required to be transported by vessels as ocean marine cargo, appropriate Ocean Marine Cargo insurance must be purchased to cover such cargo for full replacement value, including transits and storage where applicable. At the discretion of the Owner Delay-In Start-Up coverage may be requested.

In addition, if an entire vessel is chartered for shipping equipment then Charterer's Liability insurance must be purchased in amounts sufficient to protect and indemnify the Owner for all liability arising out of the chartering of such vessel.

This insurance must be purchased and maintained for the duration of such operations by the party responsible for such operations.

.2 Additional Insurance

The *Contractor* shall purchase and maintain any additional insurance which it is required to carry by law or which it considers necessary to cover risks not otherwise covered by insurance specified in this section.

The *Contractor* shall also purchase and maintain, and cause each Subcontractor of any tier to purchase and maintain, such other insurance, or amendments to the foregoing policies, as the *Owner* may reasonably require and direct.

.3 Acceptable Insurers and Policy Terms and Conditions

All insurance policies described in this Article 11.1.3.1 to be maintained by the *Contractor and Subcontractor* of any tier shall be issued by insurance companies licensed to carry on business in Ontario and reasonably acceptable to the *Owner*. Such policies shall contain terms, conditions, exclusions, limits and deductibles reasonably acceptable to the *Owner*.

.4 Evidence of Insurance to be Provided

Prior to commencement of the *Work* and upon the placement, renewal, amendment or extension of all or any part of the insurance policies described in this Article 11.1.3.1, the *Contractor* shall promptly provide the *Owner* with certificates of insurance and, if requested by the *Owner*, true copies of the of the policies certified by an authorized representative of the insurers including all amending endorsements applicable to this contract.

.5 Failure to Purchase or Maintain Insurance

If the *Contractor* fails to provide evidence that insurance policies described in this Article 11.1.3.1 have been purchased or maintained, then the *Owner* shall have the right to purchase and maintain such insurance and the cost thereof shall be paid by the *Contractor* to the *Owner* on demand or the *Owner* may deduct the cost thereof from the amount which is due or may become due to the *Contractor*.

.6 Notice of Cancellation

Each policy of insurance described in this Article 11.1.3.1 that is maintained by the *Contractor and Subcontractors* shall provide that 30 days' prior written notice be given to the *Owner* before any policy is suspended, materially detrimentally altered or cancelled.

.7 Additional Insured

Each policy of insurance described in this Article 11.1.3.1 that is maintained by the *Contractor and Subcontractors* (other than 11.1.3.1.1 Automobile Insurance and 11.1.3.1.2 Contractors' Equipment Insurance) shall name the *Owner* and the *Consultant* as additional insureds and/or loss payees as applicable and as their interests may appear.

.8 Waiver of Subrogation

In addition to Article 11.1.3.1.2, to the extent available, all other policies (other than 11.1.3.1.1 Automobile Insurance) listed in Article 11.1.3.1 shall contain a waiver of subrogation rights which the insurers may have against the *Owner* whether the damage is caused by the act, omission or negligence of any of such persons.

.9 Notification of Other Claim

In the event that a claim is made on another project that could jeopardize the coverage available for the *Project*, the *Contractor* shall provide prompt notice of such claim to the *Owner*.

11.1.4 Preservation of Insurance Coverage

The *Contractor* will not do or omit to do, or authorize or permit a Subcontractor to do or omit to do, anything that would prejudice, or result in loss of coverage under any policy of insurance required to be placed or maintained by the *Owner*, *Contractor*, or any *Subcontractor* of any tier.

11.1.5 Waiver of Rights regarding property damage

The *Contractor* hereby waives all rights of recourse against the *Owner* in respect of loss or damage to the *Contractor's* owned, leased or hired property. The *Contractor* shall also include a provision in its contracts requiring all *Subcontractors* to waive all rights of recourse against the *Owner* in respect of loss or damage to the owned, leased or hired property of the *Contractor and Subcontractor*.

11.1.6 Deductibles

The *Contractor* shall be responsible for paying any deductible amounts under the policies of insurance maintained by or on the behalf of the *Contractor*.

11.1.7 Contractor's Liability

The provisions of this Article 11.1 do not diminish, limit or otherwise affect the liability of the *Contractor* to the *Owner*, under or in relation to, any other provisions of *the Contract*.

11.1.8 Owner's Right to Reduce Coverage

The *Owner* reserves the right to remove, waive, limit or reduce any of the coverages specified herein without cost or expense to *the Owner*.

GC 11.2 Contract Security

11.2.1 Add a new paragraph 11.2.1 as follows:

11.2.1 The *Contractor* shall, prior to commencement of the *Work*, provide to the *Owner*:

- .1 a performance bond, in the form set out in the *Contract Documents*, in an amount equal to 50% of the *Contract Price*, covering the performance of the Contract including the *Contractor's* requirements with respect to the correction of deficiencies and the fulfillment of all warranties; and
- .2 a labour and material payment bond, in the form set out in the *Contract Documents*, in an amount equal to 50% of the *Contract Price* covering payment for labour, *Product*, or both.

11.2.2 ADD a new paragraph 11.2.2 as follows:

“Such bonds shall be issued by a duly licensed surety company, which is permitted under the Construction Act, authorized to transact a business of suretyship in the Province of Ontario and shall be maintained in good standing until the fulfillment of the *Contract*. The form of the labour and material bond, and the performance bond, if required under this *Contract* or under the Construction Act, shall be in accordance with, and in the for set out in, the Construction Act.”

GC 12.1 READY FOR TAKEOVER

Add to 12.1.1, the following additional provisions:

- .9 Delivery of all filters replaced as needed;
- .10 Delivery of all relevant LEED requirements including flush out completed;
- .11 Delivery of all required guarantees;
- .12 Delivery of all applicable and available warranties;
- .13 Delivery of all distribution system diagrams;
- .14 Delivery or surrender to Owner of all spare parts;
- .15 Delivery of all operations and maintenance manuals, if not previously submitted to Consultant for review of Work;
- .16 Delivery of samples;
- .17 Delivery of training manuals and video recordings for the Owner’s operations staff;
- .18 Return or surrender of all keys issued to the Contractor by the Owner for access of facilities at Place of Work.

GC 12.3 Warranty

12.3.7 ADD a new paragraph 12.3.7 as follows:

“12.3.7 The Owner may establish a Warranty Reserve in addition to any other holdback, bond or security for the faithful performance by the Contractor of its warranty obligations in this GC 12.3 and the Owner may encroach into the Warranty Reserve where the Contractor has failed to comply with the warranty provisions of GC 12.3.”

GC 13.1 Indemnification

13.1.1 DELETE GC 13.1-INDEMNIFICATION in its entirety and REPLACE it with the following:

- 13.1.1 The Contractor shall indemnify and hold harmless the Owner, its parent, subsidiaries and affiliates, the Consultant and their respective partners, trustees, officers, directors, agents and employees from and against any and all claims, liabilities, expenses, demands, losses, damages, actions, costs, suits, or proceedings (hereinafter called “claims”), whether in respect of claims suffered by the Owner or in respect of claims by third parties, that directly or indirectly arise out of, or are attributable to, the acts or omissions of the Contractor, its employees, agents, Subcontractors, Suppliers or any other persons for whom it is in law

responsible (including, without limitation, claims that directly or indirectly arise out of, or are attributable to, loss of use or damage to the Work, the Owner's property or equipment, the Contractor's property or equipment or equipment or property adjacent to the Place of the Work or death or injury to the Contractor's personnel).

- 13.1.2 The provisions of GC 13.1 - INDEMNIFICATION shall survive the termination of the Contract, howsoever caused and no payment or partial payment, no issuance of a final certificate of payment and no occupancy in whole or in part of the Work shall constitute a waiver or release of any of the provisions of GC 13.1.

GC 13.2 Waiver of Claims

- .1 In the fourth line of paragraph 13.2.1, add the words "claims for delay pursuant to GC 6.5 DELAYS and" after the word "limitation". Add the words "(collectively "Claims")" after "Ready-for-Takeover" in the fourth line.
- .2 In paragraph 13.2.1.1, change the word "claims" to "Claims" and change the word "claim" to "Claim".
- .3 In paragraph 13.2.1.2, change the word "claims" to "Claims".
- .4 Delete paragraph 13.2.1.3 in its entirety.
- .5 In paragraph 13.2.1.4, change the word "claims" to "Claims".
- .6 In paragraph 13.2.2, change the words "in paragraphs 13.2.1.2 and 13.2.1.3" to "in paragraph 13.2.1.2". Change the word "claims" to "Claims" in both instances and change the word "claim" to "Claim".
- .7 Delete paragraph 13.2.3 in its entirety.
- .8 Delete paragraph 13.2.4 in its entirety.
- .9 Delete paragraph 13.2.5 in its entirety.
- .10 In paragraph 13.2.6, change the word "claim" to "Claim" in all instances in the paragraph.
- .11 In paragraph 13.2.8, change "The party" to "The Contractor". Change the word "claim" to "Claim" in all instances in the paragraph.
- .12 In paragraph 13.2.9, change "under paragraphs 12.2.1 or 12.2.3" to "under paragraph 12.2.1". Change both instances of the words "the party" to "the Contractor". Change the word "claim" to "Claim" in all instances in the paragraph.

GC 14.1 Other Provisions

- .1 Add new Part 14 OTHER PROVISIONS as follows:

GC 14.1 OWNERSHIP OF MATERIALS

- 14.1.1 Unless otherwise specified, all materials existing at the Place of the Work at the time of execution of the Contract shall remain the property of the Owner. All Work and Products

delivered to the Place of the Work by the Contractor shall be the property of the Owner. The Contractor shall remove all surplus or rejected materials as its property when notified in writing to do so by the Consultant. Notwithstanding that ownership of the Work and Products may vest in the Owner, the risk of all Work and Products shall remain with the Contractor until the Work and Products are accepted and assumed by the Owner as otherwise set out in the Contract.

GC 14.2 CONSTRUCTION LIENS

14.2.1 In the event that a claim for lien is registered against the Project by a Subcontractor, Sub-subcontractor or Supplier, and provided the Owner has paid all amounts properly owing under the Contract, the Contractor shall, at its own expense:

- .1 within 20 calendar days, ensure that any and all claims for lien and certificates of action are discharged, released, or vacated by the posting of security or otherwise; and
- .2 in the case of written notices of lien, ensure that such notices are withdrawn, in writing.

14.2.2 In the event that the Contractor fails to conform with the requirements of paragraph 14.2.1, the Owner may fulfil those requirements without Notice in Writing to the Contractor and set off and deduct from any amount owing to the Contractor, all costs and associated expenses, including the costs of posting security and all legal fees and disbursements associated with discharging or vacating the claim for lien or certificate of action and defending the action. If there is no amount owing by the Owner to the Contractor, then the Contractor shall reimburse the Owner for all of the said costs and associated expenses.

14.2.3 Notwithstanding any other provision in the Contract, the Consultant shall not be obligated to issue a certificate and the Owner shall not be obligated to make payment to the Contractor if, at the time such certificate or payment was otherwise due:

- .1 a claim for lien has been registered against the Project lands, or
- .2 if the Owner has received written notice of a lien, or
- .3 the Owner or Consultant reasonably believe that any party has purported to retain title to Products or materials in respect of which an application for payment has been made.

14.2.4 Without limiting the foregoing, the Contractor shall, if requested by the Owner, defend, indemnify and save the Owner harmless from the amount of all such claims and the costs of defending any and all actions commenced against the Owner pursuant to the construction/builder's lien legislation in force at the Place of the Work, including the legal costs of the Owner, unless the lien was a direct result of a breach of the Contract by the Owner or the non-payment by the Owner of a valid charge or claim under the Contract.

14.2.5 GC 14.2 CONSTRUCTION LIENS, does not apply to construction liens claimed by the *Contractor*.

END OF SUPPLEMENTARY CONDITIONS

APPENDIX B FOLLOWS

Appendix B – Proper Invoice Checklist

APPENDIX B

PROPER INVOICE CHECKLIST OF CONTENTS

A Proper Invoice shall include the following:

☐ all of the information specified to be included in a proper invoice as set out in the Construction Act, if applicable, and including:

- i. the Contractor's name and address;
- ii. the date of the application for payment and the period during which the Work was performed;
- iii. information identifying the authority, whether in the Contract or otherwise, under which the Work was performed;
- iv. project name;
- v. University issued Purchase Order number;
- vi. progress draw number and invoice number;
- iv. a description, including quantity where appropriate, of the Work performed and Products supplied;
- v. the amount payable for the Work performed, and the payment terms;
- vi. the name, title, telephone number and mailing address of the person to whom payment is to be sent;
- vii. current and accrued lien holdback;
- viii. current and accrued deficiency holdback;
- ix. current and accrued warranty holdback; and
- x. project original contract value, project current value and value of approved changes to contract.

☐ for each application for payment after the first, an original statutory declaration in the most current form of CCDC 9A or other form of statutory declaration that includes the same unqualified declaration, certifying that all accounts of the Contractor have been paid in full, less only the amounts of holdback due to them for the relevant dates, that all liabilities incurred by the Contractor and its subcontractors and suppliers in carrying out the Contract have been discharged and that all liens under the Contract have expired or have been satisfied, discharged or provided for by payment;

☐ the total amount of expenditures to date and the total estimated expenditures to be made for the remaining balance of the Work;

☐ true copies of all invoices and statements from Subcontractors and Supplier furnishing Work, Products, Construction Equipment purchased under cash allowances;

☐ evidence that all bonds and insurance required under this Contract to be provided by the Contractor remain in good standing;

☐ satisfactory evidence in the form of a certificate of clearance or good standing issued by the applicable workers' compensation authority evidencing that the Contractor has made suitable provision for meeting any liability under the applicable workers' compensation laws and regulations prior to the release of any monthly progress payment and;

☐ updated project schedule tracking actual progress against baseline schedule.

****** Attention to 5.0.1 of these supplementary general conditions that requires a draft Proper Invoice in advance of the formal Proper Invoice such that "on the 25th day of each month during the Contract Time, the Contractor will deliver to the Consultant a draft invoice of the Contractor's proposed application for payment for all of the Work performed by the Contractor in that month, including an

estimate of the Work to be performed and Products to be delivered at the date of such application for payment but before the end of that month, in order to facilitate and expedite payments”

Proper Invoice Checklist – other suggestions – add to list above as required and delete if not added

- ☐ Statutory Declaration 9B
- ☐ Copy of valid Insurance Certificate(s)
- ☐ Updated Project Schedule (Design and Construction)
- ☐ Schedule of Values (Construction)
- ☐ General Progress Report and Photos
- ☐ Consultant Site Review Reports (Bi-weekly)
- ☐ Cash Allowance invoices with backup

Periodically required by the Owner:

- ☐ Jurisdictional Reviews, as required (Inspections, ESA, MOL, TSSA, MOE etc.)
- ☐ Deficiency Review and Corrective Measures Log with Photos
- ☐ Compliance with Contract and Construction Act for Substantial Performance and Completion
- ☐ Prior to Substantial Performance Proper Invoice – Close out Documents:
 - Occupancy Permit
 - As-built drawings and Operation and Maintenance Manuals
 - Start Up Reports/Commissioning Reports
 - Warrantees, Gaurantees and Certificates
 - Shop Drawings
 - Extra Stock and Spare Parts

Appendix C - Facility Services Contractor Handbook



July 2021

Facility Services Contractor Handbook

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Important Contact Information

Please provide the Project Manager/Supervisor with a 24 hour emergency telephone number the contractor can be reached in the event of an emergency.

Contact information listed below for regular operating hours (non-holiday weekdays 8:30AM-4:30PM) and after-hours.

CONTACT INFORMATION – REGULAR HOURS:

Emergency and Security:	905-525-9141 x24281 905-522-4135 “Red Rocket” Emergency Phones McMaster Safety App	security@mcmaster.ca
Facility Services Customer Service:	905-525-9141 x24740	clerks@mcmaster.ca
Boiler Room (ET Clarke):	905-525-9141 x24426	
Parking:	905-525-9141 x24281	parking@mcmaster.ca
Shipping and Receiving:	905-525-9141 x24512	
EOHSS	905-525-9141 x24352	ehss@mcmaster.ca

MCMASTER CONTACT INFORMATION – AFTER-HOURS:

Emergency and Security:	905-525-9141 x24281 905-522-4135 “Red Rocket” Emergency Phones McMaster Safety App	security@mcmaster.ca
Boiler Room (ET Clarke):	905-525-9141 x24426	

Introduction

The purpose of the Contractor Handbook is to provide important information in an easily accessible format and assist contractors and other vendors with effectively completing work at McMaster University facilities.

The Contractor/Supervisor assumes the responsibility for the safety of their agents and employees and for the compliance of Sub-Contractors, and anything contained herein does not relieve the Contractor/Supervisor to ensure that their employees are fully familiar with McMaster University safety regulations prior to starting any work.

McMaster University expects that all contractors and vendors will perform all work in keeping with the rules and regulations contained herein. It is expected that Contractors' employees and Facility Services employees will maintain a positive attitude towards safe work and safety procedures while working at McMaster. Employees sent off the job due to safety violations will not be allowed to work on any McMaster University job without further authorization from McMaster University.

These Safety Regulations for all contractors and employees make reference to Provincial Acts and Regulations. Should any procedure set forth herein conflict with applicable federal, provincial, or local laws, the more stringent regulation shall apply.

In addition to the rules set forth herein, contractors/employees working in or near an existing operating facility must be cognizant of and conform to McMaster's safety regulations for that area.

All contractors/employees undertaking work at McMaster University will be assigned a Project Manager or designate (Supervisor), who will act as their primary contacts while the job is under construction.

Safety Requirements

Contractors to refer and adhere to McMaster Risk Management Manuals (RMM's). All RMM's can be referenced on the following website:

https://hr.mcmaster.ca/employees/health_safety_well-being/our-safety/risk-management-manuals-rmms/

1. RMM 100 Workplace and Environmental Health and Safety Policy
2. RMM 102 Occupational Health and Safety Act
3. RMM 111 Contracting Work Safety – Due Diligence Program
4. RMM 201 Hot Work Program
5. RMM 302 Safety Audits and Inspections
6. RMM 304 Working Alone Program
7. RMM 305 Confined Space Entry Program
8. RMM 306 Lockout/Tagout Program
9. RMM 307 Scaffolds and Powered Elevated Work Platforms Program
10. RMM 310 Eye Protection Program
11. RMM 311 Respiratory Protection Program
12. RMM 312 Foot Protection Program
13. RMM 313 Head Protection Program
14. RMM 314 Working at Heights Protection Program
15. RMM 315 Explosive Actuated Tools Safety Program
16. RMM 316 Electrical Safety Program
17. RMM 317 Machine Shop Safety Program
18. RMM 320 Personal Protective Equipment Program
19. RMM 321 Hand Protection Program
20. RMM 401 Asbestos Management Control Program
21. RMM 403 Noise Control and Hearing Program
22. RMM 500 Designated Substances Control Program
23. RMM 501 Hazardous Materials Management Systems Including WHMIS Program
24. RMM 502 Hazardous Waste Management Program
25. RMM 504 Compresses and Liquified Gases Program
26. RMM 505 Transportation of Dangerous Goods
27. RMM 1201 Fire Safety Plan
28. RMM 1202 Spills to the Environment – Emergency Response and Reporting Program
29. RMM 1204 First Aid Program

Applicable government Regulations

The contractor/employee shall comply with the latest edition of the following documents, but not limited to, and in cases of conflict with this procedure, the more stringent rule or the Project Manager's/Supervisor's interpretation shall apply.

- The Occupational Health and Safety Act
- Construction Act
- Occupational Health and Safety Regulation for Construction Projects
- Occupational Health and Safety Regulations for Industrial Establishments
- The Workplace Safety Insurance Act
- Ontario Building Code Act
- Ontario Fire Code / National Fire Protection Association
- Environmental Protection Act
- Workers' Compensation Board, First Aid Regulation
- All applicable City of Hamilton by-laws

Other applicable Convening Authorities' regulations which apply in specific situations and any subsequent Regulations as they come into effect.

Construction Safety Meeting

Weekly safety meetings and updates are required for contractors performing ongoing and various jobs on the campus. The Contractor is to record minutes of these meetings, with a copy forwarded to the Owner. Topics discussed and any corrective action required or taken is to be noted in the minutes. The Owner may attend these meetings.

It is the responsibility of the Contractor to ensure that their sub-contractors employees brought onto the site are fully instructed in McMaster University Safety Regulations and are qualified personnel prior to starting work. The employees should be instructed to review the checklists prior to starting work.

Work Procedures

No hazardous jobs shall commence at any time at McMaster University without Project Manager prior approval for the work procedure.

All shutdown requests are to be submitted to the Project Manager using the "Shutdown Request Form" (refer to attachment) a minimum 72-hours in advance of requested shutdown date/time.

Work procedures requiring approval prior to commencing are as follows, but not limited to:

FIRE PROTECTION SHUTDOWN/OPERATION

The Project Manager/Supervisor shall be notified at least one week in advance of any equipment to be shutdowns which affect fire protection systems or equipment.

Except in an emergency, no person shall operate any fire hydrant valve, sprinkler system, or alter any part of the existing fire protection equipment, without notification and written permission from the Project Manager.

CONFINED SPACE PROCEDURES

No work requiring entry into a confined space such as sewers or tunnels shall commence without submitting of a confined space entry plan and rescue plan in accordance with RMM 305 Confined Space Entry Program and approval from Facility Services.

ELECTRICAL & MECHANICAL SHUTDOWNS

Electrical and mechanical shutdowns to be coordinated with Project Manager/Supervisor minimum 72-hours in advance to make necessary arrangements with building occupants or as advised by the Project Manager. RMM 306 Lockout/Tagout Program procedures to be followed. Nature of work may require McMaster University Facility Services lock-out in addition to lock-out by contractor (high voltage equipment).

ABATEMENT WORK

Prior to abatement work proceeding a building occupant information session is to be held minimum 5-days in advance. Contractor to ensure they have reviewed and understand Designated Substance Materials Report (DSR) of Hazardous Materials provided through the project. Contractor to coordinate with Project Manager scheduled start of abatement work.

Contractor to follow requirements as outlined in RMM 401 Asbestos Management Control Program.

If hazardous material is suspected or discovered during work, in an area not initially noted as a hazardous material area, work must be stopped, and notification provided to the Project Manager/Supervisor for verification and updating of designated substance materials report.

HOT WORKS

All work requiring, but not limited to, open flame or torch application may not proceed without a Hot Works Permit issued by McMaster University Project Manager and displayed on site.

Contractor to follow all procedures as per RMM 201 Hot Work Program.

McMaster University Hot Works Permit requirements are to be the minimum requirements to be met before, during and after the work.

EXCAVATION

Prior to any site excavation contractors must obtain Ontario One Call permits and/or service locates for the area of work. Contractors to use "Utility Marx" (1-888-443-7505) for private service locates on campus.

Locates to be provided to Project Manager/Supervisor prior to commencement of work.

Operation of Vehicles on University Property

All vehicles must obey the posted speed limits, contractors are to use the identified trucking routes (refer to trucking route attachment). Where there is no speed limit posted, the speed is 40 km/h maximum.

Contractors to obey all posted signs and pavement markings. Where no signage or markings are present, vehicles to provide Right-of-Way to pedestrians and bicycle traffic.

All vehicles and equipment to be parked within the construction site or designated area pre-arranged with McMaster Project Manager/Supervisor and shall not obstruct emergency vehicles or public ways.

Contractor to retain a record of all equipment associated with the project from all subcontractors.

All contractor vehicles are required to have a valid parking permit obtained through McMaster Parking and Security Office.

Contractors are responsible for any tickets/infractions received from McMaster Parking department.

Road Closure

Should the construction entail the blocking of any main or secondary road, Contractor concerned shall give the Project Manager/Supervisor at least one week notice, to enable proper provisions with Security, Parking and Transit Services and Environmental & Occupational Health Support Services, regarding the re-routing of emergency, pedestrian and vehicular

traffic. Contractor will be responsible for providing signage and manpower to facilitate the closure.

The Project Manager/Supervisor must be notified when any blocked road is re-opened for normal traffic.

Tools and Equipment Storage

Tools and equipment to be stored in a safe and appropriate manner in a designated area within the construction site, or alternate location as directed by McMaster Project Manager/Supervisor.

Mechanical and electrical rooms shall not be used as storage space or office space unless approved by McMaster University.

If authorized by McMaster University the use of Mechanical or Electrical rooms for work areas must be maintained and clean at all times. Including, but not limited to:

- Clear path of travel
- No obstruction to access of equipment, panels, valves etc.
- No flammable materials permitted
- No food, drink or lunch room provisions permitted
- Where possible materials to be stored in separate delineated areas (cages, coned, roped areas etc.)

Regarding exterior areas required for laydown, loading and unloading:

- Staging areas to be setup as directed by contract
- Keep streets, roads, loading docks clear of debris/equipment
- Garbage container placement to be confirmed with Project Manager
- Loading docks are to be used for active loading and unloading and are not to be blocked with parked vehicles and equipment when not actively in use

Controlled Products

Contractors and employees must comply with all aspects of the Workplace Hazardous Material Information System (WHMIS), (Ontario Regulation 860), comply with RMM 500 Designated Substances Control Program and RMM 501 Hazardous Materials Management Systems Including WHMIS Program.

Contractors/employees must have copies of Material Safety Data Sheets (MSDS) for all controlled products they bring onto University property readily available at the worksite. The Contractor/Supervisor must ensure that the information on the MSDS is up to date (MSDS are valid for three years from the date of production).

Any McMaster University employee or any Contractor working at McMaster University may request, through the Project Manager/Supervisor, a copy of any or all MSDS for controlled products used by the Contractor, if the controlled products are used or contained in an area where McMaster employees or other Contractors may enter.

If a contractor finds a Controlled Product in a construction area they will immediately contact McMaster Project Manager for review and determination if other trained personnel is required to remove products.

PPE (Personal Protective Equipment)

The Contractor and their Sub-Contractors and Supervisor shall ensure that all personnel wear and use the safety equipment necessary to complete the work in a safe manner. This shall include, but not be limited to, the following: safety glasses, goggles, gloves, approved hearing protection, hard hats, respiratory protection, safety belts, ropes, face shields, footwear, or specialized safety equipment.

Refer to RMM 320 Personal Protective Equipment Program.

The Contractor/Supervisor will provide sufficient fire equipment for the work, construction areas, and all temporary buildings and equipment. The Contractor and Sub-Contractors and Supervisors shall ensure that all personnel are trained and capable of using this equipment in a safe manner.

All contractors should be wearing some form of company identification while working on campus e.g. hard hat displaying company name, clothing displaying company name etc.

Smoking

Effective January 1, 2018, McMaster University is a Smoke Free Campus. The University policy can be located on the University's website per the following link:

<https://www.mcmaster.ca/policy/Employee/Tobacco%20&%20Smoke%20Free%20University%20Policy.pdf>

Alcohol/Drugs

The consumption of alcohol or drugs on work sites is prohibited. The University reserves the right to remove anyone who is intoxicated or under the influence of drugs or appears to be.

Washroom Facilities

Contractors/Supervisors are required to provide employees with sanitary facilities, and to maintain them at all building sites. Contractor's employees shall not use washroom facilities in existing buildings unless otherwise approved by Project Manager. At the Project Manager's discretion use of facilities can be revoked at anytime.

Respectful Workplace Policies

McMaster prioritizes a respectful workplace environment for all staff and third parties. Information on McMaster's respectful workplace policies can be found at: <https://equity.mcmaster.ca/publications/policies/>

Campus Map

CAMPUS MAP

BUILDINGS

Alumni House.....	7	John Hodgins Engineering Building (JHE).....	16
Alumni Memorial Hall (University Club).....	8	Kenneth Taylor Hall (KTH).....	38
Applied Dynamics Laboratory (ADL).....	33	L.R. Wilson Hall (LRW).....	74
Arthur N. Bourns Building (ABB).....	25	Les Prince Hall.....	53
Bates Residence Building.....	40	Life Sciences Building (LSB).....	39
Bertrand Russell Archives and Research Centre.....	82	Mary E. Keyes Residence.....	50
Biology Greenhouse.....	30	Matthews Hall.....	26
Brandon Hall.....	36	McKay Hall.....	27
Burke Science Building (BSB).....	11	McMaster Children's Centre.....	T33
Campus Services Building (CSB).....	31	McMaster Divinity College (MDC).....	17
Canadian Martyrs CES Testing/Exam Centre (Licensed Space).....	91	McMaster University Student Centre (MUSC).....	51
Chester New Hall (CNH).....	23	Michael DeGroot Centre for Learning and Discovery (MDCL).....	52
Commons Building.....	28	Mills Memorial Library / Alvin A. Lee Building / Museum of Art (MML).....	10
Communications Research Laboratory (CRL).....	43	Moulton Hall.....	18
David Braley Athletic Centre (DBAC).....	54	Nuclear Reactor.....	15
David Braley Health Sciences Centre (DBHSC).....	83	Nuclear Research Building (NRB).....	9
DeGroot School of Business (DSB).....	46	One James North (OJN).....	85
E.T. Clarke Centre (Security).....	12	Parking Services.....	T32
Edwards Hall.....	5	Peter George Centre for Living and Learning (PGCLL).....	89
Engineering Technology Building (ETB).....	56	Preliminary Laboratory.....	T13
General Sciences Building (GSB).....	22	Psychology Building (PC).....	34
Gilmour Hall (GH).....	20	Refectory (The Phoenix / Bridges).....	4
H.G. Thode Library of Science and Engineering.....	42	Ron Joyce Stadium / Les Prince Field.....	55
Hamilton Hall (HH).....	2	St. Paul's Anglican Church.....	73
Health Sciences Centre (HSC/MUMC).....	37	Tandem Accelerator Building.....	32
Health Sciences Complex Parking Structure.....	44	Temporary Building, Multi-Use.....	TB26
Hedden Hall.....	45	Temporary Lecture Theatre.....	T34
Information Technology Building (ITB).....	49	Togo Salmon Hall (TSH).....	29
Institute for Applied Health Sciences (IAHS).....	48	University Hall (UH).....	1
Ivor Wynne Centre (IWC - Athletic Centre).....	24	Wallingford Hall.....	6
		Whidden Hall.....	19
		Woodstock Hall.....	35
		47 Whitton Road.....	86
		96 Forsyth Avenue North.....	94
		106 Forsyth Avenue North.....	95
		182 Sterling Street.....	87

LEGEND

- X

 Parking Lot Zone
- ♿

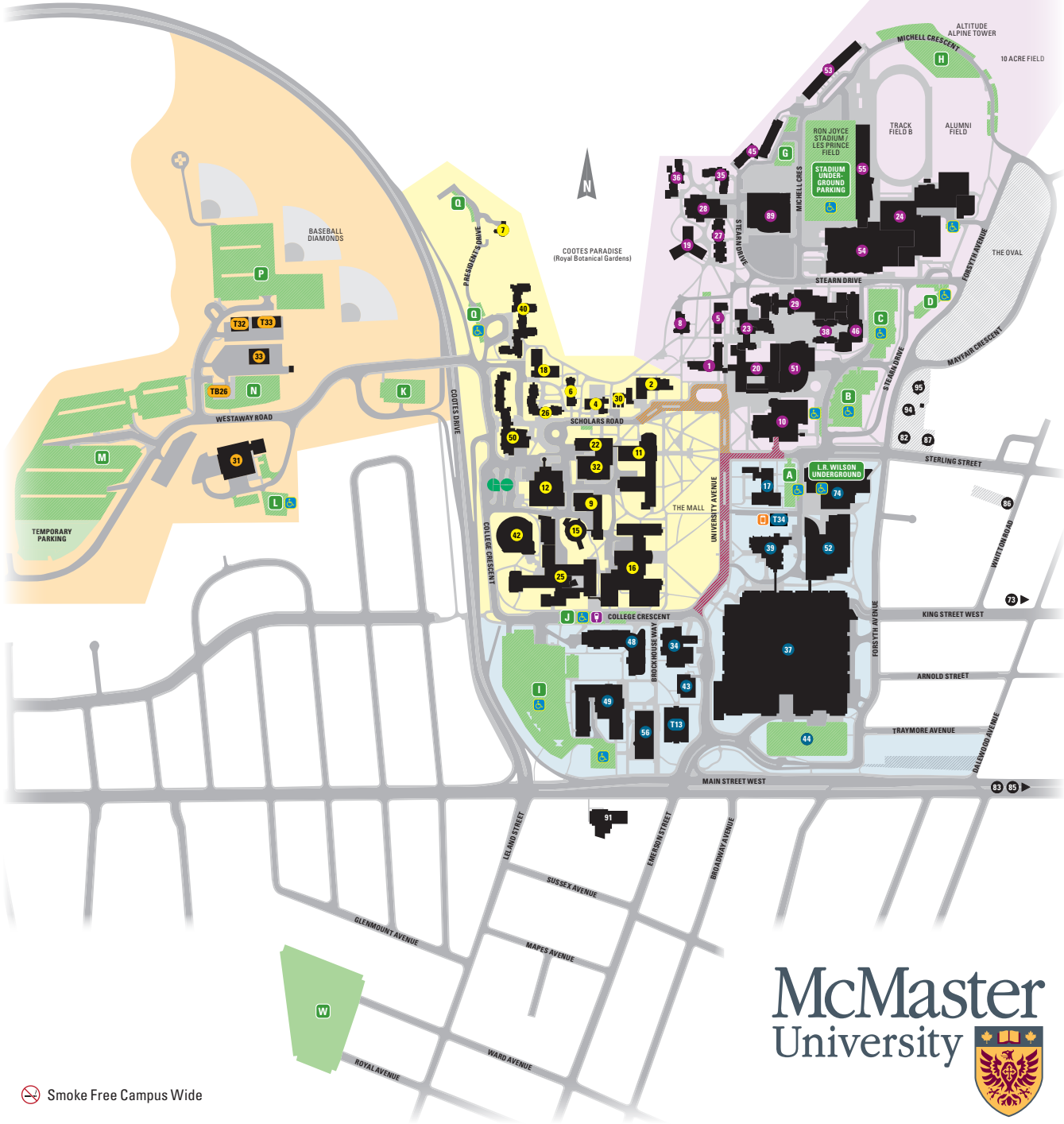
 Accessible Parking
- Ⓜ

 Meter Parking
- 🚶

 Pedestrian Priority
- 🚒

 Pedestrian Priority / Emergency and Service Vehicles Only

🚭 Smoke Free Campus Wide



Trucking Routes



Heavy Truck Information

(Trucks over 4,500kg gross vehicle weight)

All heavy trucks accessing McMaster University must follow these instructions:

Trucks over 4,500 Kg **PROHIBITED** to enter campus via **Sterling Street and Forsyth Avenue.**

When entering campus, heavy trucks must enter through the Main Street access to University avenue.

When exiting campus, heavy trucks must leave through the University to Main Street access.

Please note the following traffic regulations:

Traffic must adhere to all Security & Parking rules & regulations.

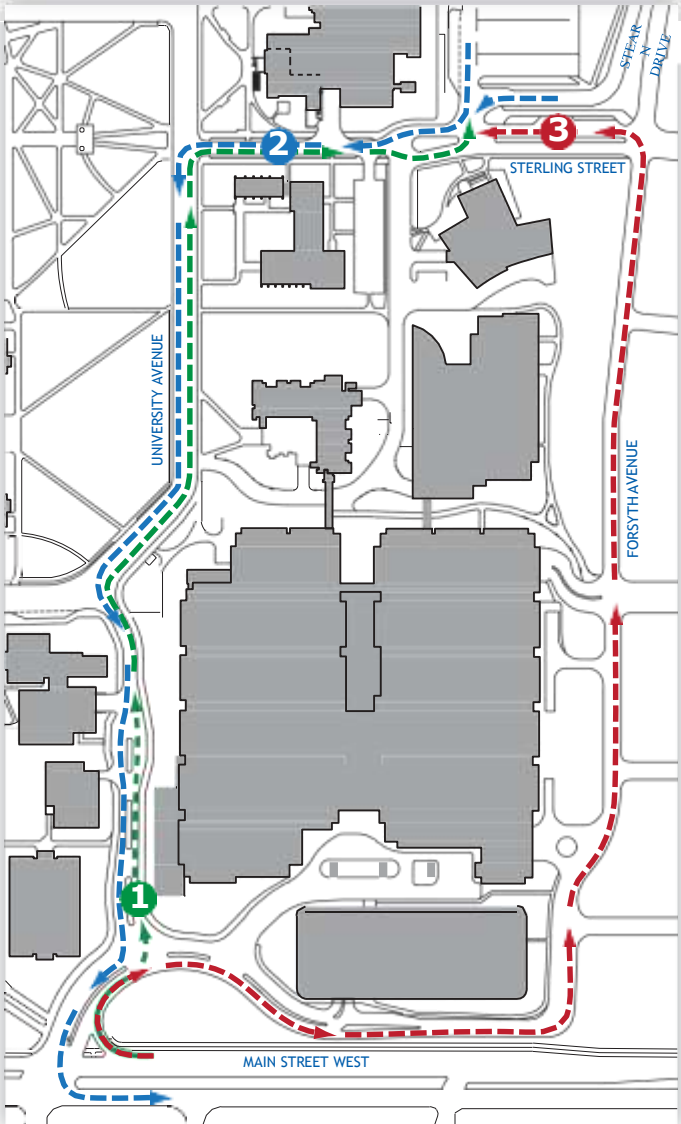
The core of campus on University Avenue and Sterling Street is a pedestrian priority area and all trucks must yield to pedestrians.

The speed limit is 20 km/hr and is radar enforced.

Truck Route

In  Out  Prohibited 

- 1** All trucks over 4,500 Kg enter Main St. W. access to University Ave.
- 2** All trucks exit University Ave. to Main St. W.
- 3** Trucks over 4,500 Kg prohibited



Shutdown Request Form

Appendix D - Prequalified Sub-Contractors

Prequalified Mechanical Contractors – Oct 2017

MERX TF 03-17-629

Term: 3 Yrs + 1 + 1

Expiry Date: Oct 2022

All Trade 1477 Bishop Street North Cambridge, ON M1R 7J4 Tel: 519-740-1090 ext 275 Cell: 519-240-1172 Fax: 519-740-8776 Contact: Jason Double Email: jdoube@alltradeindustrial.com	Besseling Mechanical 79 Covington Street Hamilton, ON L8E 2Y4 Tel: 905-560-0200 Fax: 905-560-0505 Contact: Cam Besseling Email: cameron@besselingmechanical.com
Brenner Mechanical Inc. 630 Superior Drive Waterloo, ON N2V 2C6 Tel: 519-746-0439 Fax: 519-746-2477 Contact: Michael Brenner Email: mbrenner@brenner.ca	Carmichael Engineering Ltd. –for Controls 3146 Lenworth Drive Mississauga, ON L4X 2G1 Tel: 905-625-4701 or 1-888-625-4701 Fax: 905-625-4349 Contact: Robert Forest Email: rforest@carmichael-eng.ca
Culliton Brothers Limited 473 Douro Street Stratford, ON N5A 6W3 Tel: 519-271-1981 Fax: 519-273-4885 Contact: Sarah White Email: estimating2@culliton.com	E.S. Fox Limited P.O. Box 1010, 9127 Montrose Road Niagara Falls, ON L2E 7J9 Tel: + 1 905 354-3700 Tel: 905 851-8117 ext 5233 Fax: 905-354-5599 Contact: Don Bacon +Tammy Robinson + Christine Tharme + Kelly Caldwell Email: don.bacon@esfox.com + tammy.robinson@esfox.com + christine.tharme@esfox.com + Kelly.Caldwell@esfox.com
English & Mould Mechanical Contractors 521 Piercey Rd., Unit 1 Bolton, ON L7E 5B5 Tel: 905-857-7778 ext 221 Fax: 905-857-9150 Contact: Christopher Yee Email: christopher@englishandmould.ca	Geo. A. Kelson 2 Bales Drive West Sharon, ON L0G 1V0 Tel: 905-898-3400 416-745-3400 Fax: 905-898-5491 Contact: Tracy Moore Email: tmoore@kelson.on.ca gakelson@kelson.on.ca

<p>Kirk Mechanical Limited 1451 Grahams Lake Burlington, ON L7S 1W5 Tel: 905-681-0140 Fax: 905-333-5299 Contact: Robert Kirk Email: kirkmech@bellnet.ca</p>	<p>Keith's Plumbing & Heating Inc. 647 Parkdale Avenue North Hamilton, ON, L8H 5Z1 Tel:: 905-544-8118 Fax: 905-544-6815 Contact: Morgan Pickles Email: morgan@keithsph.com</p>
<p>L.J. Barton 1341 Osprey Drive, Unit 4 Ancaster, ON L9G 4V5 Tel: 905-304-1976 Fax: 905-304-1607 Contact: Estimating or Kim Kurcz Email: estimating@ljbarton.com</p>	<p>Lancaster Group 195 Hempstead Drive Hamilton, ON L8W 2E6 Tel: 905-388-3800 Fax: 905-575-7166 Contact: Jason Gray Email: info@lancastergroup.ca</p>
<p>Mattina Mechanical 211 Lanark Street, Unit A Hamilton, ON L8E 2Z9 Tel: 905-544-6380 Fax: 905-544-3288 Contact: Domenic Mattina Email: estimatingdepartment@mattina.ca</p>	<p>Modern Niagara 8125, Hwy 50 Vaughan, ON L4H 4S6 Tel: 416-749-6031 ext. 5299 Cell: 416-320-7466 Building Service: 416-748-3882 Fax: 289-657-1100 Contact: Amer Warde + Graham Kitching + Juan Bernal Email: AWarde@modernniagara.com + Gkitching@modernniagara.com + jbernal@modernniagara.com</p>
<p>Plan Group 2740 Steeles Avenue West Vaughan, ON L4K 4T4 Tel: 416-635-9040 Fax: 416-635-9764 Contact: Paul Shewfelt Email: pshewfelt@plan-group.com</p>	<p>Procon 401 Enterprise Drive Welland, ON L3B 6H8 Tel: 905-732-0322 Fax: 905-732-3778 Contact: Michael Leone Email: procon@procon.ca + bids@procon.ca</p>

<p>Roberts Onsite 209 Manitou Drive Kitchener, ON N2C 1L4 Tel: 519-578-2230 Fax: 519-578-2979 Contact: Michael Birmingham Email: mbirmingham@robertsonsite.ca</p> <p>Or</p> <p>Black & McDonald Limited 77, Railside Road Toronto, ON – M3A 1B2 Tel: 647 – 794 – 4432 Cell: 416 – 540 – 2581 Contact: Jason Tanguay Email: jtanguay@blackandmcdonald.com</p>	<p>Trade-Mark Industrial Inc. 250 Royal Oak Drive Cambridge, ON N3E 0A4 Tel: 519-650-7444 Fax: 519-650-5707 Contact: Russ Straus Email: rstraus@trade-markind.com</p>
<p>Velocity Mechanical Inc. 176 Forfar Avenue Kitchener, ON N2B 3A1 Tel: 519-896-1119 Fax: 519-896-7898 Contact: Peter Linseman Email: peter@velocitymechanical.com</p>	<p>WS Nicholls Construction Inc. 48 Cowansview Road Cambridge, ON N1R 7N3 Tel: 519-740-3757 Cell: 226-338-7659 Fax: 519-740-9752 Contact: Alex Ilic + Michael Fournier Email: alex.ilic@wsnicholls.com, wsnicholls@on.aibn.com, mfournier@wsnconstruction.com</p>

Revised 2017

Prequalified Asbestos Contractors – Nov 2018

MERX TF 04-18/690

Term: 3 Yrs + 1 + 1

Expiry Date: November 2023

<p>Caliber Environmental Construction Services Inc. 636 Edward Ave., Building B, Unit 7 Richmond Hill, ON L4C 0V4 Tel: 905-884-5500 Fax: 905-884-5515 Contact: James Ball Email: info@caliberenv.com</p>	<p>Canviro Services Corp. 5149, Bradco Blvd, Mississauga, ON – L4W 2A6 Tel: 905-502-0278 Cell: 647-657-5755 Contact: Michael Cicconi Email: mcicconi@canviro.ca</p>
<p>Highpoint Environmental Services Inc. 265 Bartley Drive Toronto, ON M4A 2N7 Tel: 416-279-0363 Fax: 416-290-5955 Contact: Richard Maxwell Email: richard.maxwell@highpointenv.ca</p>	<p>I & I Construction Services Ltd. 70 Newkirk Road, Unit 6 Richmond Hill, ON L4C 3G3 Tel: 905-884-1290 Fax: 905-884-3267 Contact: John Watters + Edward Ted Barron Email: jwatters@iandi.ca + iandi@iandi.ca + tbarron@iandi.ca</p>
<p>Inflector Environmental Services 6961, McKeown Drive Greely, ON – K4P 1A2 Tel: 613-798-8070 Fax: 613-798-0908 Contact: Jeffrey W Clarke Email: operations@inflector.ca</p>	<p>McGowan Insulations Ltd. 345 Barton Street Stoney Creek, ON L8E 2L2 Tel: 905-549-1844 Fax: 905-664-4884 Contact: Robert McGowan, Jr. Email: info@mcgowan.on.ca</p>
<p>QM Environmental (QM LP) 3580, Laird Road, Unit # 1 Mississauga, ON – L5L 5Z7 Tel: 416-253-6000 Fax: 416-253-6699 Contact: Mark Reinhardt + Sean Carter Email: mark.reinhardt@qmenv.com + sean@qmenv.com</p>	<p>Tri-Phase Environmental Inc. 446 Hazlehurst Road Mississauga, ON L5J 2Z7 Tel: 905-823-7965 Ext. 203 Fax: 905-823-7932 Contact: Rachelle Atrache + Camille Atrache Email: rachelle@triphasegroup.com + catrache@triphasegroup.com</p>

Prequalified Controls Contractors – August 2018

MERX TF 04-18/682

Term: 3 Yrs + 1 + 1

Expiry Date: August 2023

<p>Carmichaels Engineers Ltd. 3146, Lenworth Drive, Mississauga, ON L4X 2G1 Tel: 905-625-4701 Fax: 905-625-4349</p> <p>Contact: Robert Forest + Ray Carmichael Email: rforest@carmichael-eng.ca + rcarmichael@carmichael-eng.ca</p>	<p>Regulvar Canada Inc. 3510, Pharmacy Avenue, Unit 8 Toronto, ON M1W 2T7 Tel: 416-422-0531 Ext. 2401 Cell: 647-631-3497 Fax: 416-422-4937</p> <p>Contact: Maxime Noel de Tilly Email: mnoel@regulvar.com</p>
<p>Siemens Canada Ltd. 1577, North Service Road East Oakville, ON – L6H 0H6 Tel: 905-465-8000 Cell: 905-541-7433 Fax:</p> <p>Contact: Jake Rendulic Email: jake.rendulic@siemens.com</p>	

Pre-Qualified Electrical Contractors – Dec 2017

MERX TF 03-17-630

Term: 3 Yrs + 1 + 1

Expiry Date: Dec 2022

<p>Accel Electrical Contractors Limited 100 Haist Avenue, Unit A Woodbridge, ON L4L 5V4 Tel: 905-850-8668 Fax: 905-850-3223 Contact: George Caufin Email: estimating@accelectric.com + georgecaufin@accelectric.com</p>	<p>Ainsworth Inc. 131 Bermondsey Road Toronto, ON M4A 1X4 Tel: 416-751-4420 Cell: 416-803-2641 (Adam) Fax: Contact: Randy Topp + Adam Carr Email: Randy.Topp@Ainsworth.com + estimating@ainsworth.com + adam.carr@ainsworth.com</p>
<p>Cahill Electric Limited o/o 880530 Ontario Limited 120 Lancing Drive, Unit # 6 Hamilton, ON L8W 3A1 Tel: 905-388-0515 Ext. 2 Fax: 905-388-0718 Contact: Chris Cahill Email: chris@cahillelectric.ca</p>	<p>Clairmont Electric Inc. 1070 Botanical Drive Burlington, ON L7T 1V2 Tel: 905-296-6012 Fax: 905-296-6015 Contact: Kelly Clairmont Email: kclairmont@clairmontelectric.com</p>
<p>Culliton Brothers Limited 473 Douro Street Stratford, ON N5A 6W3 Tel: 519-271-1981 Fax: 519-273-4885 Contact: Sarah White Email: sarah@cullitonbrothers.com</p>	<p>ECCO Electric Limited 47 Wright Street St. Catharines, ON L2P 3J5 Tel: 905-984-8544 Fax: 905-984-8526 Contact: Ed Email: egesch@eccoelectric.com + estimating@eccoelectric.com</p>

<p>Energy Network 125 West Beaver Creek Road, Unit 2 Richmond Hill, ON L4B 1C6 Tel: 905-763-2946 x 201 Fax: 905-763-2474 Contact: Nikhil Bhatia Email: info@ensinc.ca + nbhatia@ensinc.ca</p>	<p>E.S. Fox Limited P.O. Box 1010, 9127 Montrose Road Niagara Falls, ON L2E 7J9 Tel: + 1 905 354-3700 Fax: 905-354-5599 (Or) 35 Goderich Road, Unit 1 – 3, Hamilton, Ontario – L8P 4P2 Tel: + 1 905 – 547 - 7225 Fax: 905 – 547 - 5110 Contact: Don Bacon + Tammy Robinson + Christine Tharme + Kelly Caldwell Email: don.bacon@esfox.com + tammy.robinson@esfox.com + Christine.tharme@esfox.com + Kelly.Caldwell@esfox.com</p>
<p>Holaco Installations Limited 17 McKinstry St. Hamilton, ON L8L 6C2 Tel: 905-547-8551 Cell: 905-531-9009 Fax: 905-547-8899 Contact: Dan Lancia + Ken Armstrong Email: holaco@holaco.ca + karmstrong@holaco.ca</p>	<p>Kraun Electric Inc. 45 Wright Street St. Catharines, ON L2P 3J5 Tel: 905-684-6895 ext 201 Fax: 905-684-7829 Contact: Aaron Jones / Kevin Email: estimating@kraun.ca + aaron.jones@kraun.ca + kevin@kraun.ca</p>
<p>Fairway Electrical P.O. Box 81125 Fiddlers Green Road Ancaster, ON L9G 4X1 Tel: 905-304-1133, Ext. 102 Fax: 905-304-0698 Contact: Cal Herd + Pierre Levasseur + Lisa Cacilhas Email: cherd@fairwayelectrical.com + info@fairwayelectrical.com + lisa@fairwayelectrical.com + pierre@fairwayelectrical.com</p>	<p>Guild Electric Limited 470 Midwest Road Toronto, ON M1P 4Y5 Tel: 416-288-8222 Fax: 416-288-0884 Contact: Mark Donner Email: mark.donner@guldelectric.com</p>

<p>Pelikan Inc. (A division of Spark Power) 333 Centennial Parkway North Hamilton, ON L8E 2X6 Tel: 905-633-7780 ext.26 / Cell: 905-999-9700 Fax: 905-633-7781 Contact: Keith MacLellan Email: kmaclellan@sparkpower.ca</p>	<p>Plan Group 2740 Steeles Avenue West Vaughn, ON L4K 4T4 Tel: 416-635-9040 Fax: Contact: Kevin Martineau Email: kmartineau@plan-group.com</p>
<p>PRL-Guite Electric Limited 84 Bigwin Road, Unit 2 Hamilton, ON L8W 3R4 Tel: 905-549-6711 Fax: 905-318-5708 Contact: Paul Leaker Email: info@prlguite.ca</p>	<p>Procon Constructions Inc. 401 Enterprise Drive Welland, ON L3B 6H8 Tel: 905-732-0322 Ext. 27 Fax: 905-732-3778 Contact: Michael Leone Email: procon@procon.ca + mike.leone@procon.ca + lesther.corrales@procon.ca + greg.leone@procon.ca</p>
<p>Quantum Lighting & Electric Co. 110 Crockford Blvd. Unit 1 Scarborough, ON M1R 3C3 Tel: 416-752-8882 Cell: 416-676-2465 Fax: 416-752-6225 Contact: Larry Shaw Email: larry@eama.ca Email: larry@quantumelectric.ca</p>	<p>Roberts Onsite 209 Manitou Drive Kitchener, ON N2C 1L4 Tel: 519-578-2230 Fax: 519-578-2979 Contact: Debbie Magnus Email: DMagnus@robertsonsite.ca</p> <p>Or</p> <p>Black & McDonald Limited 77, Railside Road Toronto, ON – M3A 1B2 Tel: 647 – 794 – 4432 Cell: 416 – 540 – 2581 Contact: Jason Tanguay Email: jtanguay@blackandmcdonald.com + bolan@blackandmcdonald.com</p>

<p>T. Lloyd Electric Ontario Ltd. 16 Harlowe Road, Unit 5 Hamilton, ON L8W 3R6 Tel: 905-388-8916 Fax: 905-388-7538 Contact: Mark Lloyd + Paul Leskovec Email: mark@tlloydelectric.ca + paul@tlloydelectric.ca</p>	<p>Tiltran Power Services 14719 Bayham Drive, RR#3 Tillsonburg, ON N4G 4G8 Tel: 519-842-6458 Fax: 519-842-7688 Contact: Ruud Wouters Email: info@tiltran.ca + rwouters@tiltran.ca</p>
<p>WS Nicholls Construction Inc. 48 Cowansview Road Cambridge, ON N1R 7N3 Tel: 519-740-3757 Cell: 226-338-7659 Fax: 519-740-9752 Contact: Alex Ilic Email: alex.ilic@wsnicholls.com + wsnicholls@on.aibn.com + ghutcheson@wsnicholls.com</p>	

Appendix E - Technical Specifications & Drawings