



THE CITY OF WINNIPEG

TENDER

TENDER NO. 727-2019

**ELECTRICAL UPGRADES FOR CLIFTON FLOOD PUMPING AND WASTEWATER
LIFT STATION**

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 ELECTRICAL UPGRADES FOR CLIFTON FLOOD PUMPING AND WASTEWATER LIFT STATION

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 12:00 noon Winnipeg time, August 9, 2019.

B2.2 Bids determined by the Manager of Materials to have been received later than the Submission Deadline will not be accepted and will be returned upon request.

B2.3 The Contract Administrator or the Manager of Materials may extend the Submission Deadline by issuing an addendum at any time prior to the time and date specified in B2.1.

B3. SITE INVESTIGATION

B3.1 Further to C3.1, the Contract Administrator or an authorized representative will be available at the Site from 9:00 am to 12:00 pm on July 30, 2019 to provide Bidders access to the Site.

(a) The address of the Site is 1256 Wolseley Avenue

B3.2 The Bidder is advised that CSA approved safety footwear, protective eyewear, and a hard hat are required while at the pumping station facility.

B3.3 The Bidder shall not be entitled to rely on any information or interpretation received at the Site investigation unless that information or interpretation is the Bidder's direct observation, or is provided by the Contract Administrator in writing.

B4. ENQUIRIES

B4.1 All enquiries shall be directed to the Contract Administrator identified in D4.1.

B4.2 If the Bidder finds errors, discrepancies or omissions in the Tender, or is unsure of the meaning or intent of any provision therein, the Bidder shall notify the Contract Administrator of the error, discrepancy or omission, or request a clarification as to the meaning or intent of the provision at least five (5) Business Days prior to the Submission Deadline.

B4.3 Responses to enquiries which, in the sole judgment of the Contract Administrator, require a correction to or a clarification of the Tender will be provided by the Contract Administrator to all Bidders by issuing an addendum.

B4.4 Responses to enquiries which, in the sole judgment of the Contract Administrator, do not require a correction to or a clarification of the Tender will be provided by the Contract Administrator only to the Bidder who made the enquiry.

B4.5 The Bidder shall not be entitled to rely on any response or interpretation received pursuant to B4 unless that response or interpretation is provided by the Contract Administrator in writing.

B5. CONFIDENTIALITY

B5.1 Information provided to a Bidder by the City or acquired by a Bidder by way of further enquiries or through investigation is confidential. Such information shall not be used or disclosed in any way without the prior written authorization of the Contract Administrator. The use and disclosure of the confidential information shall not apply to information which:

(a) was known to the Bidder before receipt hereof; or

(b) becomes publicly known other than through the Bidder; or

(c) is disclosed pursuant to the requirements of a governmental authority or judicial order.

B5.2 The Bidder shall not make any statement of fact or opinion regarding any aspect of the Tender to the media or any member of the public without the prior written authorization of the Contract Administrator.

B5.3 Notwithstanding B20.1, all quotations, invoices and other pricing related information associated with the Standardized Goods and acquired by a Bidder or its Subcontractors through enquiries, investigation or any other means is confidential. Such information shall not be used or disclosed in any way, other than meeting the requirements of this Bid Opportunity.

B6. ADDENDA

B6.1 The Contract Administrator may, at any time prior to the Submission Deadline, issue addenda correcting errors, discrepancies or omissions in the Tender, or clarifying the meaning or intent of any provision therein.

B6.2 The Contract Administrator will issue each addendum at least two (2) Business Days prior to the Submission Deadline, or provide at least two (2) Business Days by extending the Submission Deadline.

B6.3 Addenda will be available on the Bid Opportunities page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/bidopp.asp>

B6.4 The Bidder is responsible for ensuring that he/she has received all addenda and is advised to check the Materials Management Division website for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.

B6.5 The Bidder shall acknowledge receipt of each addendum in Paragraph 10 of Form A: Bid. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.

B6.6 Notwithstanding B4, enquiries related to an Addendum may be directed to the Contract Administrator indicated in D4.

B7. SUBSTITUTES

B7.1 The Work is based on the Plant, Materials and methods specified in the Tender.

B7.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.

B7.3 Requests for approval of a substitute will not be considered unless received in writing by the Contract Administrator at least five (5) Business Days prior to the Submission Deadline.

B7.4 The Bidder shall ensure that any and all requests for approval of a substitute:

- (a) provide sufficient information and details to enable the Contract Administrator to determine the acceptability of the Plant, Material or method as either an approved equal or alternative;
- (b) identify any and all changes required in the applicable Work, and all changes to any other Work, which would become necessary to accommodate the substitute;
- (c) identify any anticipated cost or time savings that may be associated with the substitute;
- (d) certify that, in the case of a request for approval as an approved equal, the substitute will fully perform the functions called for by the general design, be of equal or superior substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance;

- (e) certify that, in the case of a request for approval as an approved alternative, the substitute will adequately perform the functions called for by the general design, be similar in substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance.
- B7.5 The Contract Administrator, after assessing the request for approval of a substitute, may in his/her sole discretion grant approval for the use of a substitute as an “approved equal” or as an “approved alternative”, or may refuse to grant approval of the substitute.
- B7.6 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, to the Bidder who requested approval of the substitute.
- B7.6.1 The Contract Administrator will issue an Addendum, disclosing the approved materials, equipment, methods and products to all potential Bidders. The Bidder requesting and obtaining the approval of a substitute shall be responsible for disseminating information regarding the approval to any person or persons he/she wishes to inform.
- B7.7 If the Contract Administrator approves a substitute as an “approved equal”, any Bidder may use the approved equal in place of the specified item.
- B7.8 If the Contract Administrator approves a substitute as an “approved alternative”, any Bidder bidding that approved alternative may base his/her Total Bid Price upon the specified item but may also indicate an alternative price based upon the approved alternative. Such alternatives will be evaluated in accordance with 0.
- B7.9 No later claim by the Contractor for an addition to the Total Bid Price because of any other changes in the Work necessitated by the use of an approved equal or an approved alternative will be considered.
- B7.10 Substitutes to the City’s Standardized Goods, as identified in E21 and E22, will not be accepted.

B8. BID COMPONENTS

- B8.1 The Bid shall consist of the following components:
- (a) Form A: Bid;
 - (b) Form B: Prices;
 - (c) Form G1: Bid Bond and Agreement to Bond;
- B8.2 Further to B8.1, the Bidder should include the written correspondence from the Contract Administrator approving a substitute in accordance with B7.
- B8.3 All components of the Bid shall be fully completed or provided, and submitted by the Bidder no later than the Submission Deadline, with all required entries made clearly and completely.
- B8.4 The Bid shall be submitted enclosed and sealed in an envelope clearly marked with the Tender number and the Bidder’s name and address.
- B8.4.1 Samples or other components of the Bid which cannot reasonably be enclosed in the envelope may be packaged separately, but shall be clearly marked with the Tender number, the Bidder’s name and address, and an indication that the contents are part of the Bidder’s Bid.
- B8.5 Bidders are advised not to include any information/literature except as requested in accordance with B8.1.
- B8.6 Bidders are advised that inclusion of terms and conditions inconsistent with the Tender document, including the General Conditions, will be evaluated in accordance with B18.1(a).

B8.7 Bids submitted by facsimile transmission (fax) or internet electronic mail (e-mail) will not be accepted.

B8.8 Bids shall be submitted to:

The City of Winnipeg
Corporate Finance Department
Materials Management Division
185 King Street, Main Floor
Winnipeg MB R3B 1J1

B9. BID

B9.1 The Bidder shall complete Form A: Bid, making all required entries.

B9.2 Paragraph 2 of Form A: Bid shall be completed in accordance with the following requirements:

- (a) if the Bidder is a sole proprietor carrying on business in his/her own name, his/her name shall be inserted;
- (b) if the Bidder is a partnership, the full name of the partnership shall be inserted;
- (c) if the Bidder is a corporation, the full name of the corporation shall be inserted;
- (d) if the Bidder is carrying on business under a name other than his/her own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.

B9.2.1 If a Bid is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B9.2.

B9.3 In Paragraph 3 of Form A: Bid, the Bidder shall identify a contact person who is authorized to represent the Bidder for purposes of the Bid.

B9.4 Paragraph 13 of Form A: Bid shall be signed in accordance with the following requirements:

- (a) if the Bidder is a sole proprietor carrying on business in his/her own name, it shall be signed by the Bidder;
- (b) if the Bidder is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;
- (c) if the Bidder is a corporation, it shall be signed by its duly authorized officer or officers and the corporate seal, if the corporation has one, should be affixed;
- (d) if the Bidder is carrying on business under a name other than his/her own, it shall be signed by the registered owner of the business name, or by the registered owner's authorized officials if the owner is a partnership or a corporation.

B9.4.1 The name and official capacity of all individuals signing Form A: Bid should be printed below such signatures.

B9.5 If a Bid is submitted jointly by two or more persons, the word "Bidder" shall mean each and all such persons, and the undertakings, covenants and obligations of such joint Bidders in the Bid and the Contract, when awarded, shall be both joint and several.

B10. PRICES

B10.1 The Bidder shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.

B10.1.1 Notwithstanding C12.2.3(c), prices on Form B: Prices shall not include the Manitoba Retail Sales Tax (MRST, also known as PST), which shall be extra where applicable.

- B10.1.2 Prices stated on Form B: Prices shall not include any costs which may be incurred by the Contractor with respect to any applicable funding agreement obligations as outlined in D30. Any such costs shall be determined in accordance with D30.
- B10.2 The quantities listed on Form B: Prices are to be considered approximate only. The City will use said quantities for the purpose of comparing Bids.
- B10.3 The quantities for which payment will be made to the Contractor are to be determined by the Work actually performed and completed by the Contractor, to be measured as specified in the applicable Specifications.
- B10.4 Payments to Non-Resident Contractors are subject to Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).
- B10.5 Form B, Item 10: The Bidder shall enter the cost of the Standardized Goods to be supplied from Schneider Electric Canada Ltd. (Schneider) as part of the Standardized Control System and Motor Control Equipment agreement identified in E21. The cost shall be the base cost received from Schneider, without any mark-up or taxes applied.
- B10.5.1 Any mark-up to the supply of the Standardized Goods shall be deemed to be included in other applicable Form B lines.
- B10.6 Form B, Item 13: The Bidder shall enter the cost of the Standardized Goods to be supplied from Trans-West Supply Company Inc. (Trans-West) as part of the Standardized Instrumentation agreement identified in E22. The cost shall be the base cost received from Trans-West, without any mark-up or taxes applied.
- B10.6.1 Any mark-up to the supply of the Standardized Goods shall be deemed to be included in other applicable Form B lines.

B11. DISCLOSURE

- B11.1 Various Persons provided information or services with respect to this Work. In the City's opinion, this relationship or association does not create a conflict of interest because of this full disclosure. Where applicable, additional material available as a result of contact with these Persons is listed below.
- B11.2 The Persons are:
- (a) N/A

B12. CONFLICT OF INTEREST AND GOOD FAITH

- B12.1 Bidders, by responding to this Tender, declare that no Conflict of Interest currently exists, or is reasonably expected to exist in the future.
- B12.2 Conflict of Interest means any situation or circumstance where a Bidder or employee of the Bidder proposed for the Work has:
- (a) other commitments;
- (b) relationships;
- (c) financial interests; or
- (d) involvement in ongoing litigation;
- that could or would be seen to:
- (i) exercise an improper influence over the objective, unbiased and impartial exercise of the independent judgment of the City with respect to the evaluation of Bids or award of the Contract; or
- (ii) compromise, impair or be incompatible with the effective performance of a Bidder's obligations under the Contract;

- (e) has contractual or other obligations to the City that could or would be seen to have been compromised or impaired as a result of its participation in the Tender process or the Work;
or
- (f) has knowledge of confidential information (other than confidential information disclosed by the City in the normal course of the Tender process) of strategic and/or material relevance to the Tender process or to the Work that is not available to other bidders and that could or would be seen to give that Bidder an unfair competitive advantage.

B12.3 In connection with its Bid, each entity identified in B12.2 shall:

- (a) avoid any perceived, potential or actual Conflict of Interest in relation to the procurement process and the Work;
- (b) upon discovering any perceived, potential or actual Conflict of Interest at any time during the Tender process, promptly disclose a detailed description of the Conflict of Interest to the City in a written statement to the Contract Administrator; and
- (c) provide the City with the proposed means to avoid or mitigate, to the greatest extent practicable, any perceived, potential or actual Conflict of Interest and shall submit any additional information to the City that the City considers necessary to properly assess the perceived, potential or actual Conflict of Interest.

B12.4 Without limiting B12.3, the City may, in its sole discretion, waive any and all perceived, potential or actual Conflicts of Interest. The City's waiver may be based upon such terms and conditions as the City, in its sole discretion, requires to satisfy itself that the Conflict of Interest has been appropriately avoided or mitigated, including requiring the Bidder to put into place such policies, procedures, measures and other safeguards as may be required by and be acceptable to the City, in its sole discretion, to avoid or mitigate the impact of such Conflict of Interest.

B12.5 Without limiting B12.3, and in addition to all contractual or other rights or rights at law or in equity or legislation that may be available to the City, the City may, in its sole discretion:

- (a) disqualify a Bidder that fails to disclose a perceived, potential or actual Conflict of Interest of the Bidder or any of its employees proposed for the Work;
- (b) require the removal or replacement of any employees proposed for the Work that has a perceived, actual or potential Conflict of Interest that the City, in its sole discretion, determines cannot be avoided or mitigated;
- (c) disqualify a Bidder or employees proposed for the Work that fails to comply with any requirements prescribed by the City pursuant to B12.4 to avoid or mitigate a Conflict of Interest; and
- (d) disqualify a Bidder if the Bidder, or one of its employees proposed for the Work, has a perceived, potential or actual Conflict of Interest that, in the City's sole discretion, cannot be avoided or mitigated, or otherwise resolved.

B12.6 The final determination of whether a perceived, potential or actual Conflict of Interest exists shall be made by the City, in its sole discretion.

B13. QUALIFICATION

B13.1 The Bidder shall:

- (a) undertake to be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba; and
- (b) be financially capable of carrying out the terms of the Contract; and
- (c) have all the necessary experience, capital, organization, and equipment to perform the Work in strict accordance with the terms and provisions of the Contract.

- B13.2 The Bidder and any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:
- (a) be responsible and not be suspended, debarred or in default of any obligations to the City. A list of suspended or debarred individuals and companies is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <https://winnipeg.ca/finance/findata/matmgt/listing/debar.pdf>
- B13.3 The Bidder and/or any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:
- (a) have successfully carried out work similar in nature, scope and value to the Work; and
 - (b) be fully capable of performing the Work required to be in strict accordance with the terms and provisions of the Contract; and
 - (c) have a written workplace safety and health program if required pursuant to The Workplace Safety and Health Act (Manitoba);
- B13.4 Further to B13.3(c), the Bidder shall, within five (5) Business Days of a request by the Contract Administrator, provide proof satisfactory to the Contract Administrator that the Bidder/Subcontractor has a workplace safety and health program meeting the requirements of The Workplace Safety and Health Act (Manitoba), by providing:
- (a) Written confirmation of a safety and health certification meeting SAFE Work Manitoba's SAFE Work Certified Standard (e.g., COR™ and SECOR™) in the form of:
 - (i) a copy of their valid Manitoba COR certificate and Letter of Good Standing (or Manitoba equivalency) as issued under the Certificate of Recognition (COR) Program administered by the Construction Safety Association of Manitoba or by the Manitoba Heavy Construction Association's WORKSAFELY™ COR™ Program; or
 - (ii) a copy of their valid Manitoba SECOR™ certificate and Letter of Good Standing (or Manitoba equivalency) as issued under the Small Employer Certificate of Recognition Program (SECOR™) administered by the Construction Safety Association of Manitoba or by the Manitoba Heavy Construction Association's WORKSAFELY™ COR™ Program; or
 - (b) a report or letter to that effect from an independent reviewer acceptable to the City. (A list of acceptable reviewers and the review template are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>).
- B13.5 The Bidder shall submit, within three (3) Business Days of a request by the Contract Administrator, proof satisfactory to the Contract Administrator of the qualifications of the Bidder and of any proposed Subcontractor.
- B13.6 The Bidder shall provide, on the request of the Contract Administrator, full access to any of the Bidder's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Bidder's equipment and facilities are adequate to perform the Work.

B14. BID SECURITY

- B14.1 The Bidder shall provide bid security in the form of a bid bond, in the amount of at least ten percent (10%) of the Total Bid Price, and agreement to bond of a company registered to conduct the business of a surety in Manitoba, in the form included in the Bid Submission (Form G1: Bid Bond and Agreement to Bond).
- B14.1.1 If the Bidder submits alternative bids, the bid security shall be in the amount of the specified percentage of the highest Total Bid Price submitted.
 - B14.1.2 All signatures on bid securities shall be original.
 - B14.1.3 The Bidder shall sign the Bid Bond.

- B14.1.4 The Surety shall sign and affix its corporate seal on the Bid Bond and the Agreement to Bond.
- B14.2 The bid security of the successful Bidder and the next two lowest evaluated responsive and responsible Bidders will be released by the City when a Contract for the Work has been duly executed by the successful Bidder and the contract securities are furnished as provided herein. The bid securities of all other Bidders will be released when a Contract is awarded.
- B14.3 The bid securities of all Bidders will be released by the City as soon as practicable following notification by the Contract Administrator to the Bidders that no award of Contract will be made pursuant to the Tender.

B15. OPENING OF BIDS AND RELEASE OF INFORMATION

- B15.1 Bids will be opened publicly, after the Submission Deadline has elapsed, in the office of the Corporate Finance Department, Materials Management Division, or in such other office as may be designated by the Manager of Materials.
- B15.1.1 Bidders or their representatives may attend.
- B15.2 Following the submission deadline, the names of the Bidders and their Total Bid Prices (unevaluated, and pending review and verification of conformance with requirements) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>
- B15.3 After award of Contract, the name(s) of the successful Bidder(s), their address(es) and the Contract amount(s) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>
- B15.4 The Bidder is advised that any information contained in any Bid may be released if required by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law or by City policy or procedures (which may include access by members of City Council).
- B15.4.1 To the extent permitted, the City shall treat as confidential information, those aspects of a Bid Submission identified by the Bidder as such in accordance with and by reference to Part 2, Section 17 or Section 18 or Section 26 of The Freedom of Information and Protection of Privacy Act (Manitoba), as amended.

B16. IRREVOCABLE BID

- B16.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 11 of Form A: Bid.
- B16.2 The acceptance by the City of any Bid shall not release the Bids of the next two lowest evaluated responsive Bidders and these Bidders shall be bound by their Bids on such Work until a Contract for the Work has been duly executed and the contract securities have been furnished as herein provided, but any Bid shall be deemed to have lapsed unless accepted within the time period specified in Paragraph 11 of Form A: Bid.

B17. WITHDRAWAL OF BIDS

- B17.1 A Bidder may withdraw his/her Bid without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.
- B17.1.1 Notwithstanding C23.3, the time and date of receipt of any notice withdrawing a Bid shall be the time and date of receipt as determined by the Manager of Materials.

- B17.1.2 The City will assume that any one of the contact persons named in Paragraph 3 of Form A: Bid or the Bidder's authorized representatives named in Paragraph 13 of Form A: Bid, and only such person, has authority to give notice of withdrawal.
- B17.1.3 If a Bidder gives notice of withdrawal prior to the Submission Deadline, the Manager of Materials will:
- (a) retain the Bid until after the Submission Deadline has elapsed;
 - (b) open the Bid to identify the contact person named in Paragraph 3 of Form A: Bid and the Bidder's authorized representatives named in Paragraph 13 of Form A: Bid; and
 - (c) if the notice has been given by any one of the persons specified in B17.1.3(b), declare the Bid withdrawn.
- B17.2 A Bidder who withdraws his/her Bid after the Submission Deadline but before his/her Bid has been released or has lapsed as provided for in B16.2 shall be liable for such damages as are imposed upon the Bidder by law and subject to such sanctions as the Chief Administrative Officer considers appropriate in the circumstances. The City, in such event, shall be entitled to all rights and remedies available to it at law, including the right to retain the Bidder's bid security.

B18. EVALUATION OF BIDS

- B18.1 Award of the Contract shall be based on the following bid evaluation criteria:
- (a) compliance by the Bidder with the requirements of the Tender, or acceptable deviation there from (pass/fail);
 - (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B13 (pass/fail);
 - (c) Total Bid Price;
 - (d) economic analysis of any approved alternative pursuant to B7.
- B18.2 Further to B18.1(a), the Award Authority may reject a Bid as being non-responsive if the Bid is incomplete, obscure or conditional, or contains additions, deletions, alterations or other irregularities. The Award Authority may reject all or any part of any Bid, or waive technical requirements or minor informalities or irregularities, if the interests of the City so require.
- B18.3 Further to B18.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in his/her Bid or in other information required to be submitted, that he/she is responsible and qualified.
- B18.4 Further to B18.1(c), the Total Bid Price shall be the sum of the quantities multiplied by the unit prices for each item shown on Form B: Prices.
- B18.4.1 Further to B18.1(a), in the event that a unit price is not provided on Form B: Prices, the City will determine the unit price by dividing the Amount (extended price) by the approximate quantity, for the purposes of evaluation and payment.

B19. AWARD OF CONTRACT

- B19.1 The City will give notice of the award of the Contract or will give notice that no award will be made.
- B19.2 The City will have no obligation to award a Contract to a Bidder, even though one or all of the Bidders are determined to be qualified, and the Bids are determined to be responsive.
- B19.2.1 Without limiting the generality of B19.2, the City will have no obligation to award a Contract where:
- (a) the prices exceed the available City funds for the Work;
 - (b) the prices are materially in excess of the prices received for similar work in the past;

- (c) the prices are materially in excess of the City's cost to perform the Work, or a significant portion thereof, with its own forces;
- (d) only one Bid is received; or
- (e) in the judgment of the Award Authority, the interests of the City would best be served by not awarding a Contract.

B19.3 If funding for the Work is provided to the City of Winnipeg by the Government of Manitoba and/or the Government of Canada, Bidders are advised that the terms of D30 shall immediately take effect upon confirmation of such funding, regardless of when funding is confirmed.

B19.4 Where an award of Contract is made by the City, the award shall be made to the qualified Bidder submitting the lowest evaluated responsive Bid, in accordance with 0.

B19.4.1 Following the award of contract, a Bidder will be provided with information related to the evaluation of his/her Bid upon written request to the Contract Administrator.

PART C - GENERAL CONDITIONS

C0. GENERAL CONDITIONS

- C0.1 The *General Conditions for Construction* (Revision 2019-01-15) are applicable to the Work of the Contract.
- C0.1.1 The *General Conditions for Construction* are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at http://www.winnipeg.ca/matmgt/gen_cond.stm
- C0.2 A reference in the Bid Opportunity to a section, clause or subclause with the prefix “**C**” designates a section, clause or subclause in the *General Conditions for Construction*.

PART D - SUPPLEMENTAL CONDITIONS

GENERAL

D1. GENERAL CONDITIONS

D1.1 In addition to the *General Conditions for Construction*, these Supplemental Conditions are applicable to the Work of the Contract.

D2. SCOPE OF WORK

D2.1 The Work to be done under the Contract shall consist of the electrical upgrade of the Clifton waste water flood pumping and waste station.

D2.2 The major components of the Work are as follows:

- (a) Partial demolition of the existing electrical vault in the flood pumping station to convert the space into a new electrical room.
- (b) Partial demolition of the electrical equipment within the existing motor room.
- (c) Installation of new 750kVA padmounted transformer, 4160V CSTE, and 600V CSTE.
- (d) Installation of new electrical distribution equipment including: service entrance switchgear, electrical panels, circuit breakers, motor control center, and all associated components.
- (e) Installation of housekeeping pads for all electrical equipment installed on floor.
- (f) Installation of a new electrical panel, including relocation of automation and controls.
- (g) Installation of new insulated wall and ceiling within the electrical room.
- (h) Installation of heating and ventilation system in the electrical room to maintain safe temperature within the electrical room.
- (i) Miscellaneous Site works, including landscaping.
- (j) Replacement of motor circuit protector for lift pumps in lift station with 40A rated models that have an instantaneous setting of 320A.
- (k) Replacement of the lift station transformer primary protection with an appropriately rated thermal magnetic breaker.

D3. DEFINITIONS

D3.1 When used in this Tender:

- (a) "CSTE" means Customer Service Termination Enclosure;
- (b) "FAT" means Factory Acceptance Test;
- (c) "HVAC" means Heating, Ventilation, and Air Conditioning;
- (d) "MCC" means Motor Control Centre;
- (e) "RTU" means Remote Terminal Unit;
- (f) "SCADA" means Supervisory Control and Data Acquisition;
- (g) "TVSS" means Transient Voltage Surge Suppressor.
- (h) "Standardized Goods" means the respective goods identified in D257 that have been standardized by the City.
- (i) "Standardization Vendor" means a contractor or supplier of Standardized Goods, as identified in D27.

D4. CONTRACT ADMINISTRATOR

- D4.1 The Contract Administrator is KGS Group Consulting Engineers, represented by:
Jason Bouchard, P.Eng.
Senior Electrical Engineer and Electrical Industrial Department Head
Telephone No. 204-896-1209
Email jbouchard@ksgsgroup.com
- D4.2 At the pre-construction meeting, Mr. Bouchard will identify additional personnel representing the Contract Administrator and their respective roles and responsibilities for the Work.

D5. CONTRACTOR'S SUPERVISOR

- D5.1 At the pre-construction meeting, the Contractor shall identify his/her designated supervisor and any additional personnel representing the Contractor and their respective roles and responsibilities for the Work.

D6. OWNERSHIP OF INFORMATION, CONFIDENTIALITY AND NON DISCLOSURE

- D6.1 The Contract, all deliverables produced or developed, and information provided to or acquired by the Contractor are the property of the City and shall not be appropriated for the Contractors own use, or for the use of any third party.
- D6.2 The Contractor shall not make any public announcements or press releases regarding the Contract, without the prior written authorization of the Contract Administrator.
- D6.3 The following shall be confidential and shall not be disclosed by the Contractor to the media or any member of the public without the prior written authorization of the Contract Administrator;
- (a) information provided to the Contractor by the City or acquired by the Contractor during the course of the Work;
 - (b) the Contract, all deliverables produced or developed; and
 - (c) any statement of fact or opinion regarding any aspect of the Contract.
- D6.4 A Contractor who violates any provision of D6 may be determined to be in breach of Contract.

D7. NOTICES

- D7.1 Except as provided for in C23.2.2, all notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the Contractor shall be sent to the facsimile number identified by the Contractor in Paragraph 2 of Form A: Bid.
- D7.2 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the City, except as expressly otherwise required in D7.3, D7.4 or elsewhere in the Contract, shall be sent to the attention of the Contract Administrator identified in D4.
- D7.3 Notwithstanding C21., all notices of appeal to the Chief Administrative Officer shall be sent to the attention of the Chief Financial Officer at the following:
The City of Winnipeg
Attn: Chief Financial Officer
Office of the Chief Administrative Officer
Susan A. Thompson Building
2nd Floor, 510 Main Street
Winnipeg MB R3B 1B9
- D7.4 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications required to be submitted or returned to the City Solicitor shall be sent to the following facsimile number:

The City of Winnipeg
Legal Services Department
Attn: Director of Legal Services
Facsimile No.: 204 947-9155

D7.5 Bids Submissions must not be submitted to the above facsimile number. Bids must be submitted in accordance with B8.

D8. FURNISHING OF DOCUMENTS

D8.1 Upon award of the Contract, the Contractor will be provided with five (5) complete sets of the Tender. If the Contractor requires additional sets of the Tender, they will be supplied to him at cost.

SUBMISSIONS

D9. AUTHORITY TO CARRY ON BUSINESS

D9.1 The Contractor shall be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba, or if the Contractor does not carry on business in Manitoba, in the jurisdiction where the Contractor does carry on business, throughout the term of the Contract, and shall provide the Contract Administrator with evidence thereof upon request.

D10. SAFE WORK PLAN

D10.1 The Contractor shall provide the Contract Administrator with a Safe Work Plan at least five (5) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.

D10.2 The Safe Work Plan should be prepared and submitted in the format shown in the City's template which is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/Safety/default.stm>

D10.3 Notwithstanding B13.4 at any time during the term of the Contract, the City may, at its sole discretion and acting reasonably, require an updated COR Certificate or Annual Letter of good Standing. A Contractor, who fails to provide a satisfactory COR Certificate or Annual Letter of good Standing, will not be permitted to continue to perform any Work.

D11. INSURANCE

D11.1 The Contractor shall provide and maintain the following insurance coverage:

- (a) commercial general liability insurance, in the amount of at least two million dollars (\$2,000,000.00) inclusive, with The City of Winnipeg added as an additional insured, with a cross-liability clause, such liability policy to also contain contractual liability, unlicensed motor vehicle liability, non-owned automobile liability and products and completed operations, to remain in place at all times during the performance of the Work and throughout the warranty period;
- (b) if applicable, Automobile Liability Insurance covering all motor vehicles, owned and operated and used or to be used by the Contractor directly or indirectly in the performance of the Work. The Limit of Liability shall not be less than \$2,000,000 inclusive for loss or damage including personal injuries and death resulting from any one accident or occurrence.

- (c) all risks course of construction insurance in the amount of one hundred percent (100%) of the total Contract Price, written in the name of the Contractor and The City of Winnipeg, at all times during the performance of the Work and until the date of Total Performance.

D11.2 Deductibles shall be borne by the Contractor.

D11.3 The Contractor shall provide the City Solicitor with a certificate(s) of insurance, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Work but in no event later than the date specified in C4.1 for the return of the executed Contract.

D11.4 The Contractor shall not cancel, materially alter, or cause each policy to lapse without providing at least thirty (30) Calendar Days prior written notice to the Contract Administrator.

D12. CONTRACT SECURITY

D12.1 The Contractor shall provide and maintain the performance bond and the labour and material payment bond until the expiration of the warranty period in the form of:

- (a) a performance bond of a company registered to conduct the business of a surety in Manitoba, in the form attached to these Supplemental Conditions (Form H1: Performance Bond), in the amount of fifty percent (50%) of the Contract Price; and
- (b) a labour and material payment bond of a company registered to conduct the business of a surety in Manitoba, in the form attached to these Supplemental Conditions (Form H2: Labour and Material Payment Bond), in an amount equal to fifty percent (50%) of the Contract Price.

D12.2 The Contractor shall provide the City Solicitor with the required performance and labour and material payment bonds within seven (7) Calendar Days of notification of the award of the Contract by way of letter of intent and prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.

D12.3 The Contractor shall, as soon as practicable after entering into a contract with a Subcontractor:

- (a) give the Subcontractor written notice of the existence of the labour and material payment bond in D12.1(b); and
- (b) post a notice of the bond and/or a copy of that bond in a conspicuous location at the Site of the Work.

D13. SUBCONTRACTOR LIST

D13.1 The Contractor shall provide the Contract Administrator with a complete list of the Subcontractors whom the Contractor proposes to engage (Form J: Subcontractor List) at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.

D14. DETAILED WORK SCHEDULE

D14.1 The Contractor shall provide the Contract Administrator with a detailed work schedule at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.

D14.2 The detailed work schedule shall consist of the following:

- (a) a critical path method (C.P.M.) schedule for the Work;
- (b) a Gantt chart for the Work based on the C.P.M. schedule; and
- (c) proposed dates for achievement of Substantial Performance and Total Performance; all acceptable to the Contract Administrator.

D14.3 Further to D14.2(a), the C.P.M. schedule shall clearly identify the start and completion dates of all of the activities/tasks making up the Work as well as showing those activities/tasks on the critical path.

D14.4 Further to D14.2(b), the Gantt chart shall show the time on a weekly basis, required to carry out the Work of each trade, or specification division. The time shall be on the horizontal axis, and the type of trade shall be on the vertical axis.

D15. ESTIMATES

D15.1 The Contractor shall provide the Contract Administrator with copies of the estimates provided by Standardized Equipment Suppliers identified in E21 and E22.

SCHEDULE OF WORK

D16. COMMENCEMENT

D16.1 The Contractor shall not commence any Work until he/she is in receipt of a letter of intent from the Award Authority authorizing the commencement of the Work.

D16.2 The Contractor shall not commence any Work on the Site until:

- (a) the Contract Administrator has confirmed receipt and approval of:
 - (i) evidence of authority to carry on business specified in D9;
 - (ii) evidence of the workers compensation coverage specified in C6.15;
 - (iii) the Safe Work Plan specified in D10;
 - (iv) evidence of the insurance specified in D11;
 - (v) the contract security specified in D12;
 - (vi) the Subcontractor list specified in D13; and
 - (vii) the detailed work schedule specified in D14.
- (b) the Contractor has attended a pre-construction meeting with the Contract Administrator, or the Contract Administrator has waived the requirement for a pre-construction meeting.

D16.3 The Contractor shall not commence the Work on the Site before November 1, 2019.

D17. CRITICAL STAGES

D17.1 The Contractor shall achieve critical stages of the Work in accordance with the following requirements:

- (a) The new 600V flood pump motor starters, powered from the new 5kV service equipment, and operating under automatic control, shall be put into service by February 28, 2020.

D18. SUBSTANTIAL PERFORMANCE

D18.1 The Contractor shall achieve Substantial Performance by March 31, 2020.

D18.2 When the Contractor considers the Work to be substantially performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Substantial Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be reinspected.

D18.3 The date on which the Work has been certified by the Contract Administrator as being substantially performed to the requirements of the Contract through the issue of a certificate of Substantial Performance is the date on which Substantial Performance has been achieved.

D19. TOTAL PERFORMANCE

- D19.1 The Contractor shall achieve Total Performance by April 30, 2020.
- D19.2 When the Contractor or the Contract Administrator considers the Work to be totally performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Total Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be reinspected.
- D19.3 The date on which the Work has been certified by the Contract Administrator as being totally performed to the requirements of the Contract through the issue of a certificate of Total Performance is the date on which Total Performance has been achieved.

D20. LIQUIDATED DAMAGES

- D20.1 If the Contractor fails to achieve Critical Stages, Substantial Performance or Total Performance in accordance with the Contract by the days fixed herein for same, the Contractor shall pay the City the following amounts per Working Day for each and every Working Day following the days fixed herein for same during which such failure continues:
- (a) Critical Stage – Automatic Control of Flood Pump Starters – One thousand, five hundred dollars (\$1,500);
 - (b) Substantial Performance – One thousand dollars (\$1,000)
 - (c) Total Performance – Five hundred dollars (\$500).
- D20.2 The amounts specified for liquidated damages in D20.1 are based on a genuine pre-estimate of the City's losses in the event that the Contractor does not achieve critical stages, Substantial Performance or Total Performance by the days fixed herein for same.
- D20.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

D21. SCHEDULED MAINTENANCE

- D21.1 The Contractor shall perform the following scheduled maintenance in the manner and within the time periods required by the Specifications:
- (a) Landscape Maintenance as specified in CW 3510 of the City of Winnipeg's Standard Construction Specifications.
- D21.2 Determination of Substantial Performance and Total Performance shall be exclusive of scheduled maintenance identified herein. All scheduled maintenance shall be completed prior to the expiration of the warranty period. Where the scheduled maintenance cannot be completed during the warranty period, the warranty period shall be extended for such period of time as it takes the Contractor to complete the scheduled maintenance.

CONTROL OF WORK

D22. JOB MEETINGS

- D22.1 Regular weekly job meetings will be held at the Site. These meetings shall be attended by a minimum of one representative of the Contract Administrator, one representative of the City and one representative of the Contractor. Each representative shall be a responsible person capable of expressing the position of the Contract Administrator, the City and the Contractor respectively on any matter discussed at the meeting including the Work schedule and the need to make any revisions to the Work schedule. The progress of the Work will be reviewed at each of these meetings.

D22.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he/she deems it necessary.

D23. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)

D23.1 Further to C6.24, the Contractor shall be the Prime Contractor and shall serve as, and have the duties of the Prime Contractor in accordance with The Workplace Safety and Health Act (Manitoba).

D24. THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA) – QUALIFICATIONS

D24.1 Further to B13.4, the Contractor/Subcontractor must, throughout the term of the Contract, have a Workplace Safety and Health Program meeting the requirements of The Workplace Safety and Health Act (Manitoba). At any time during the term of the Contract, the City may, at its sole discretion and acting reasonably, require updated proof of compliance, as set out in B13.4.

STANDARDIZATION

D25. STANDARDIZED GOODS

D25.1 The following goods have been standardized by the City and will be supplied by the Contractor:

- (a) Standardized Control System and Motor Control Equipment as per E21.
- (b) Standardized Instrumentation as per E22.

D26. CONTRACTUAL ARRANGEMENT

D26.1 Each Standardization Vendor shall be a Subcontractor of the Contractor.

D26.2 The City's contract with each of the Standardization Vendors defines the prices and general terms of supply to the Contractor. Each Standardization Vendor is obligated to enter into a contract with the Contractor, based upon such prices and general terms of supply.

D26.2.1 The City is not party to any contract between a Standardization Vendor and the Contractor, or any Subcontractor.

D26.3 In the event that a potential dispute arises between the Contractor and a Standardization Vendor, the Contract Administrator shall be notified.

D27. PAYMENT OF STANDARDIZATION VENDORS

D27.1 The Contractor is obligated to pay the Standardization Vendors in accordance with general terms of supply applicable to such Standardization Vendor.

D27.2 The Contractor's payment terms to the Standardization Vendor, in respect of Standardized Control System and Motor Control Equipment identified in E21, include the following:

D27.2.1 Except as indicated in D27.2.2, payment shall be in Canadian funds net thirty (30) Calendar Days after shipment.

D27.2.2 Payment for motor control centres shall be in Canadian funds net thirty (30) Calendar Days and initiated based upon the following schedule:

- (a) Upon approval of the shop drawings or forty (40) Calendar days after the last comprehensive submittal, in the event that a response is not made to the submittal: 25% of the total value.
- (b) Upon delivery of the complete MCC along with all associated as-manufactured documentation: 60% of the total value; or

- (c) In the event that the delivery is intentionally delayed, upon request by the Contractor, the following payment schedule would replace the 60% payment:
 - (i) Upon completion of the FAT and delivery of all as-manufactured documentation to the Contractor – 30% of the total value.
 - (ii) Forty (40) Calendar days after delivery of the as-manufactured documentation to the Contractor, or upon delivery, whichever comes sooner – 30% of the total value.
- (d) Upon successful commissioning and delivery of documentation or six (6) months after delivery, whichever comes first: 15% of the total value.

D27.3 The Contractor's payment terms to the Standardization Vendor, in respect of Standardized Instrumentation identified in E22, include the following:

D27.3.1 Payment shall be in Canadian funds net thirty (30) Calendar Days after receipt and approval of the Standardization Vendor's invoice.

MEASUREMENT AND PAYMENT

D28. PAYMENT

D28.1 Further to C12, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

D29. PAYMENT SCHEDULE

D29.1 The City's payment to the Contractor, associated with Standardized Goods, will be in accordance with C12.

WARRANTY

D30. WARRANTY

D30.1 Warranty is as stated in C13.

THIRD PARTY AGREEMENTS

D31. FUNDING AND/OR CONTRIBUTION AGREEMENT OBLIGATIONS

D31.1 In the event that funding for the Work of the Contract is provided to the City of Winnipeg by the Government of Manitoba and/or the Government of Canada, the following terms and conditions shall apply, as required by the applicable funding agreements.

D31.2 Further to D31.1, in the event that the obligations in D31 apply, actual costs legitimately incurred by the Contractor as a direct result of these obligations ("Funding Costs") shall be determined by the actual cost to the Contractor and not by the valuation method(s) outlined in C7.4. In all other respects Funding Costs will be processed in accordance with Changes in Work under C7.

D31.3 For the purposes of D31:

- (a) "**Government of Canada**" includes the authorized officials, auditors, and representatives of the Government of Canada; and
- (b) "**Government of Manitoba**" includes the authorized officials, auditors, and representatives of the Government of Manitoba.

D31.4 Modified Insurance Requirements

- D31.4.1 If not already required under the insurance requirements identified in D11, the Contractor will be required to provide wrap-up liability insurance in an amount of no less than two million dollars (\$2,000,000) inclusive per occurrence. Such policy will be written in the joint names of the City, Contractor, Consultants and all sub-contractors and sub-consultants and include twelve (12) months completed operations. The Government of Manitoba and its Ministers, officers, employees, and agents shall be added as additional insureds.
- D31.4.2 If not already required under the insurance requirements identified in D11, the Contractor will be required to provide builders' risk insurance (including boiler and machinery insurance, as applicable) providing all risks coverage at full replacement cost, or such lower level of insurance that the City may identify on a case-by-case basis, such as an installation floater.
- D31.4.3 The Contractor shall obtain and maintain third party liability insurance with minimum coverage of two million dollars (\$2,000,000.00) per occurrence on all licensed vehicles operated at the Site. In the event that this requirement conflicts with another licensed vehicle insurance requirement in this Contract, then the requirement that provides the higher level of insurance shall apply.
- D31.4.4 Further to D11.3, insurers shall provide satisfactory Certificates of Insurance to the Government of Manitoba prior to commencement of Work as written evidence of the insurance required. The Certificates of Insurance must provide for a minimum of thirty (30) days' prior written notice to the Government of Manitoba in case of insurance cancellation.
- D31.4.5 All policies must be taken out with insurers licensed to carry on business in the Province of Manitoba.
- D31.5 Indemnification By Contractor
- D31.5.1 In addition to the indemnity obligations outlined in C17 of the General Conditions for Construction, the Contractor agrees to indemnify and save harmless the Government of Canada and the Government of Manitoba and each of their respective Ministers, officers, servants, employees, and agents from and against all claims and demands, losses, costs, damages, actions, suit or other proceedings brought or pursued in any manner in respect of any matter caused by the Contractor or arising from this Contract or the Work, or from the goods or services provided or required to be provided by the Contractor, except those resulting from the negligence of any of the Government of Canada's or the Government of Manitoba's Ministers, officers, servants, employees, or agents, as the case may be.
- D31.6 Records Retention and Audits
- D31.6.1 The Contractor shall maintain and preserve accurate and complete records in respect of this Contract and the Work, including all accounting records, financial documents, copies of contracts with other parties and other records relating to this Contract and the Work during the term of the Contract and for at least six (6) years after Total Performance. Those records bearing original signatures or professional seals or stamps must be preserved in paper form; other records may be retained in electronic form.
- D31.6.2 In addition to the record keeping and inspection obligations outlined in C6 of the General Conditions for Construction, the Contractor shall keep available for inspection and audit at all reasonable times while this Contract is in effect and until at least six (6) years after Total Performance, all records, documents, and contracts referred to in D31.6.1 for inspection, copying and audit by the City of Winnipeg, the Government of Manitoba and/or the Government of Canada and their respective representatives and auditors, and to produce them on demand; to provide reasonable facilities for such inspections, copying and audits, to provide copies of and extracts from such records, documents, or contracts upon request by the City of Winnipeg, the Government of Manitoba, and/or the Government of Canada and their respective representatives and auditors, and to promptly provide such other information and explanations as may be reasonably requested by the City of Winnipeg, the Government of Manitoba, and/or the Government of Canada from time-to-time.
- D31.7 Other Obligations

- D31.7.1 The Contractor consents to the City providing a copy of the Contract to the Government of Manitoba and/or the Government of Canada upon request from either entity.
- D31.7.2 If the Lobbyists Registration Act (Manitoba) applies to the Contractor, the Contractor represents and warrants that it has filed a return and is registered and in full compliance with the obligations of that Act, and covenants that it will continue to comply for the duration of this Contract.
- D31.7.3 The Contractor shall comply with all applicable legislation and standards, whether federal, provincial, or municipal, including (without limitation) labour, environmental, and human rights laws, in the course of providing the Work.
- D31.7.4 The Contractor shall properly account for the Work provided under this Contract and payment received in this respect, prepared in accordance with generally accepted accounting principles in effect in Canada, including those principles and standards approved or recommended from time-to-time by the Chartered Professional Accountants of Canada or the Public Sector Accounting Board, as applicable, applied on a consistent basis.

FORM H1: PERFORMANCE BOND
(See D12)

KNOW ALL MEN BY THESE PRESENTS THAT

_____ ,
(hereinafter called the "Principal"), and

_____ ,
(hereinafter called the "Surety"), are held and firmly bound unto **THE CITY OF WINNIPEG** (hereinafter called the "Obligee"), in the sum of

_____ dollars (\$_____.)

of lawful money of Canada to be paid to the Obligee, or its successors or assigns, for the payment of which sum the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS the Principal has entered into a written contract with the Obligee for

TENDER NO. 727-2019

ELECTRICAL UPGRADES FOR CLIFTON FLOOD PUMPING AND WASTEWATER LIFT STATION

which is by reference made part hereof and is hereinafter referred to as the "Contract".

NOW THEREFORE the condition of the above obligation is such that if the Principal shall:

- (a) carry out and perform the Contract and every part thereof in the manner and within the times set forth in the Contract and in accordance with the terms and conditions specified in the Contract;
- (b) perform the Work in a good, proper, workmanlike manner;
- (c) make all the payments whether to the Obligee or to others as therein provided;
- (d) in every other respect comply with the conditions and perform the covenants contained in the Contract; and
- (e) indemnify and save harmless the Obligee against and from all loss, costs, damages, claims, and demands of every description as set forth in the Contract, and from all penalties, assessments, claims, actions for loss, damages or compensation whether arising under "The Workers Compensation Act", or any other Act or otherwise arising out of or in any way connected with the performance or non-performance of the Contract or any part thereof during the term of the Contract and the warranty period provided for therein;

THEN THIS OBLIGATION SHALL BE VOID, but otherwise shall remain in full force and effect. The Surety shall not, however, be liable for a greater sum than the sum specified above.

AND IT IS HEREBY DECLARED AND AGREED that the Surety shall be liable as Principal, and that nothing of any kind or matter whatsoever that will not discharge the Principal shall operate as a discharge or release of liability of the Surety, any law or usage relating to the liability of Sureties to the contrary notwithstanding.

IN WITNESS WHEREOF the Principal and Surety have signed and sealed this bond the

_____ day of _____, 20____.

SIGNED AND SEALED
in the presence of:

(Witness as to Principal if no seal)

(Name of Principal)

Per: _____ (Seal)

Per: _____

(Name of Surety)

By: _____ (Seal)
(Attorney-in-Fact)

FORM H2: LABOUR AND MATERIAL PAYMENT BOND
(See D12)

KNOW ALL MEN BY THESE PRESENTS THAT

his/its heirs, executors, administrators, successors or assigns (hereinafter called the "Principal"), and

his/its heirs, executors, administrators, successors or assigns (hereinafter called the "Surety"), are held and firmly bound unto **THE CITY OF WINNIPEG** (hereinafter called the "Obligee"), for the use and benefit of claimants as herein below defined, in the amount of

_____ dollars (\$_____)

of lawful money of Canada, for the payment whereof we, the Principal and the Surety jointly and severally bind ourselves firmly by these presents.

WHEREAS the Principal has entered into a written contract with the Obligee for

TENDER NO. 727-2019

ELECTRICAL UPGRADES FOR CLIFTON FLOOD PUMPING AND WASTEWATER LIFT STATION

which is by reference made part hereof and is hereinafter referred to as the "Contract".

NOW THEREFORE the condition of the above obligation is such that if the Principal shall promptly make payment to all claimants as hereinafter defined, for all labour, service and material used or reasonably required for use in the performance of the Contract, then this obligation shall be void, otherwise it shall remain in full force and effect subject, however, to the following conditions:

- (a) A claimant is defined as one having a direct contract with the Principal for labour, service and material, or any of them, used or reasonably required for use in the performance of the contract, labour, service and material being construed to include that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental of equipment (but excluding rent of equipment where the rent pursuant to an agreement is to be applied towards the purchase price thereof) directly applicable to the Contract;
- (b) The above-named Principal and Surety hereby jointly and severally agree with the Obligee that every claimant as herein defined, who has not been paid in full before the expiration of a period of ninety (90) days after the date on which the last of such claimant's work, labour or service was done or performed, or materials were furnished by such claimant, may sue on this bond, prosecute the suit to final judgment for such sum or sums as may be justly due claimant, and have execution thereon;
- (c) No suit or action shall be commenced hereunder by any claimant
 - (ii) unless claimant shall have given written notice to the Principal and the Surety above-named, within one hundred and twenty (120) days after such claimant did or performed the last of the work, labour or service, or furnished the last of the materials for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished, or for whom the work, labour or service was done or performed. Such notice shall be served by mailing the same by registered mail to the Principal, and Surety, at any place where an office is regularly maintained for the transaction of business, or served in any manner in which legal process may be served in the Province of Manitoba;

- (iii) after the expiration of one (1) year following the date on which Principal ceased work on said Contract; including work performed under the guarantees provided in the Contract;
 - (iv) other than in a court of competent jurisdiction in the Province of Manitoba.
- (d) The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payment by Surety of mechanics liens which may be filed of record against said improvement, whether or not claim for the amount of such lien be presented under and against this bond.
- (e) The Surety shall not be liable for a greater sum than the specified penalty of this bond.

The Principal and Surety hereby agree that The Guarantors' Liability Act (Manitoba) shall apply to this Bond.

IN TESTIMONY WHEREOF, the Principal has hereunto set its hand affixed its seal, and the Surety has caused these presents to be sealed and with its corporate seal duly attested by the authorized signature of its signing authority this

_____ day of _____, 20_____ .

SIGNED AND SEALED
in the presence of:

(Witness as to Principal if no seal)

(Name of Principal)

Per: _____ (Seal)

Per: _____

(Name of Surety)

By: _____ (Seal)
(Attorney-in-Fact)

PART E - SPECIFICATIONS

GENERAL

E1. APPLICABLE SPECIFICATIONS AND DRAWINGS

- E1.1 These Specifications shall apply to the Work.
- E1.2 *The City of Winnipeg Standard Construction Specifications* in its entirety, whether or not specifically listed on Form B: Prices, shall apply to the Work.
- E1.2.1 *The City of Winnipeg Standard Construction Specifications* is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgmt/Spec/Default.stm>
- E1.2.2 The version in effect three (3) Business Days before the Submission Deadline shall apply.
- E1.2.3 Further to C2.4(d), Specifications included in the Tender shall govern over *The City of Winnipeg Standard Construction Specifications*.
- E1.3 Bidders are reminded that requests for approval of substitutes as an approved equal or an approved alternative shall be made in accordance with B7. In every instance where a brand name or design specification is used, the City will also consider approved equals and/or approved alternatives in accordance with B7.
- E1.4 The following are applicable to the Work:

| <u>Specification No.</u> | <u>Specification Title</u> |
|--------------------------|--|
| DIVISION 01 – | GENERAL REQUIREMENTS |
| 01 33 00 | Submittal Procedures |
| 01 45 00 | Quality Control |
| 01 61 00 | Common Product Requirements |
| 01 78 00 | Closeout Submittals |
| DIVISION 03 – | CONCRETE |
| 03 30 00 | Cast-in-Place – Concrete |
| DIVISION 04 – | MASONRY |
| 04 05 00 | Common Work Results for Masonry |
| 04 05 12 | Masonry Mortar |
| 04 05 23 | Masonry Accessories |
| 04 21 13 | Brick Masonry |
| DIVISION 05 – | METALS |
| 05 41 00 | Structural Metal Stud Framing |
| DIVISION 06 – | CARPENTRY |
| 06 08 99 | Rough Carpentry for Minor Works |
| DIVISION 07 – | THERMAL AND MOISTURE PROTECTION |
| 07 21 16 | Blanket Insulation |

DIVISION 08 –

OPENINGS

08 11 00 Metal Doors and Frames
08 71 00 Door Hardware

DIVISION 09 –

FINISHES

09 91 13 Exterior Painting
09 91 23 Interior Painting

DIVISION 23 –

HEATING, VENTILATING AND AIR-CONDITIONING (HVAC)

23 31 13 Metal Ducts - Low Pressure to 500 Pa
23 33 14 Dampers
23 34 00 HVAC Fans

DIVISION 26 –

ELECTRICAL

26 05 00 Common Work Results
26 05 20 Wire and Box Connectors (0-1000V)
26 05 21 Wires and Cables (0-1000V)
26 05 27 Grounding – Primary
26 05 28 Grounding – Secondary
26 05 29 Hangers and Supports for Electrical Systems
26 05 31 Splitters, Junction, Pull Boxes and Cabinets
26 05 32 Outlet Boxes, Conduit Boxes and Fittings
26 05 34 Conduits, Conduit Fastenings, and Conduit Fittings
26 05 36 Cable Trays for Electrical Systems
26 12 16.01 Dry Type Transformers Up To 600 V Primary
26 12 19 Pad Mounted, Liquid Filled, Medium Voltage Transformers
26 18 41 Interlock Systems
26 24 01 Service Equipment
26 24 16.01 Panelboards Breaker Type
26 24 19 Motor Control Centers
26 27 16 Electrical Cabinets and Enclosures
26 27 26 Wiring Devices
26 28 16.02 Moulded Case Circuit Breakers
26 28 23 Disconnect Switches – Fused and Non-Fused
26 29 01 Contactors
26 29 03 Control Devices
23 29 10 Motor Starters (0-600V)

DIVISION 40 –

INSTRUMENTATION & AUTOMATION

40 91 00 Automation – Process Measurement Devices

Drawing No.

1-0125F-E0000-001
1-0125F-E0002-001
1-0125F-E0003-001
1-0125F-E0004-001
1-0125F-E0005-001
1-0125F-E0006-001
1-0125F-E0007-001
1-0125F-E0008-001
1-0125F-E0009-001
1-0125F-E0010-001
1-0125F-E0011-001
1-0125F-E0012-001

Drawing Name/Title

Cover Sheet
Legend
Single Line Diagram Demolition
Single Line Diagram
Site Plan
Service Equipment Plan
Main Floor Demolition
Main Floor Power, Lighting and Cable Tray Plan
Pump Room Power and Lighting Plan
Hazardous Location Plan
MCC Elevation and Details
Panel Schedules

| | |
|-------------------|--|
| 1-0125F-E0013-001 | PNL-F72 Schematic and Wiring Diagram |
| 1-0125F-E0014-001 | PNL-F72 Cabinet Layout and Bill of Materials |
| 1-0125F-E0015-001 | Motor Starter Schematic MS-F01 Flood Pump Sht. 1 |
| 1-0125F-E0016-001 | Connection Diagram MS-F01 Flood Pump Sht. 2 |
| 1-0125F-E0017-001 | Motor Starter Schematic MS-F02 Flood Pump Sht. 1 |
| 1-0125F-E0018-001 | Connection Diagram MS-F02 Flood Pump Sht. 2 |
| 1-0125F-E0019-001 | Motor Starter Schematic MS-F03 Flood Pump Sht. 1 |
| 1-0125F-E0020-001 | Connection Diagram MS-F03 Flood Pump Sht. 2 |
| 1-0125F-E0021-001 | Motor Starter Schematic MS-F04 Flood Pump Sht. 1 |
| 1-0125F-E0022-001 | Connection Diagram MS-F04 Flood Pump Sht. 2 |
| 1-0125F-E0023-001 | Motor Starter Schematic EF-F60 Exhaust Fan |
| 1-0125F-E0024-001 | Motor Starter Schematic SF-F60 Supply Fan |
| 1-0125F-E0025-001 | Electrical Grounding and Bonding Riser Diagram |
| 1-0125F-E0026-001 | Grounding and Miscellaneous Details |
| 1-0125F-E0027-001 | Temperature Switch TS-F620 Loop Diagram |
| 1-0125F-E0028-001 | Low Oil Level LSL-F701 Loop Diagram |
| 1-0125F-E0029-001 | High Temperature Switch TSH-702 Loop Diagram |
| 1-0125F-E0030-001 | Clifton Lift Station Single Line Diagram |
| 1-0125F-E0031-001 | Clifton Lift Station Power Plan |
| 1-0125F-M0001-001 | Main Floor HVAC New |
| 1-0125F-S0002-001 | Plan, Sections & Details |
| 1-0125F-S0003-001 | Plan, Sections & Details |

Appendices:

Appendix A Transformer Vault Photos

E2. MISCELLANEOUS

- E2.1 The Contractor shall provide all materials, fabrications, finishes, temporary installation, documentation, shop drawings, means and methods necessary to fully install all of the new works identified on the contract drawings in a safe manner, fit-for-purpose intended. The description of work provided herein is intended to be a general description of work activities, and is not intended to be an exhaustive listing of all tasks necessary to complete the scope of installations given on the drawings or specifications.
- E2.2 Exercise care where cutting holes in existing concrete elements so as not to damage existing reinforcing.
- (a) For reinforced concrete floors, locate existing reinforcing utilizing a reinforcing bar locator and mark out on the surface of the concrete prior to cutting.
- (i) Mark the location of the proposed hole and all adjacent rebar.
- (ii) Obtain approval from the Contract Administrator prior to cutting.
- E2.3 The Contractor shall exercise care where installing anchors into existing concrete elements so as not to damage existing reinforcing. All anchors shall be installed utilizing carbide tip drill bits. The existing reinforcing shall be located utilizing a reinforcing bar locator and marked out on the surface of the concrete. The drill holes shall be advanced to the required depth for installation of anchors. Should reinforcement be encountered while drilling, terminate the hole and reposition to clear the reinforcement. Do not use core bits that can easily intercept and damage/cut the reinforcing during drilling.
- E2.4 The Contractor shall abide by the Arc Flash PPE requirements of CSA-Z462, Workplace Electrical Safety, and the arc flash labels on existing facility equipment.
- E2.5 Wire nuts
- (a) Wire nuts are not permitted in conduit bodies; and
- (b) Wire nuts are permitted in junction boxes for lighting and receptacle wiring only. Wire nuts are not permitted for automation wiring.

E2.6 All conduit routes shall be approved by the Contract Administrator prior to installation of new conduit.

E3. HAZARDOUS MATERIALS

E3.1 If asbestos or other hazardous materials are encountered during the Work of the Contract, the Contractor shall stop all work and notify the Contract Administrator immediately. Removal of hazardous materials shall be dealt with by the City and the Contractor shall await further instruction by the Contract Administrator.

E4. EQUIPMENT SUPPLIED BY OTHERS

E4.1 Manitoba Hydro will supply the following equipment:

- (a) 4.16kV utility meter and associated potential and current transformers. Contractor to install metering equipment into new 4.16kV metering compartment.

E5. EQUIPMENT AND MATERIALS

E5.1 The Contractor shall supply all equipment and materials necessary to execute the work, except for the equipment and material indicated as "Existing" and to be re-used on the Drawings. Also note equipment to be supplied by others in E4.

E5.2 Existing equipment and materials may be re-used only as specifically indicated in these specifications, as shown on the Drawings or as approved by the Contract Administrator.

E6. SECURITY

E6.1 The Contractor is responsible for all material and equipment stored on the site.

E6.2 Provide a chain-link fence around the construction site and lock after working hours. Supply five (5) copies of the key to the City.

E6.3 The Contractor is responsible for ensuring the security of the pumping station.

E6.4 Provide and pay for responsible security personnel to guard the site and contents of site after working hours whenever the pumping station or any associated piece of equipment is not locked and fully secure.

E7. SALVAGE

E7.1 All salvaged equipment and materials as determined by the Contract Administrator shall remain property of the City unless specifically noted otherwise. The Contractor shall deliver salvaged equipment and materials to the City of Winnipeg's "Y Yard" outdoor storage compound located at the North East corner of the intersection of Dugald Road and Van Bellegham Avenue, Winnipeg, Manitoba.

E7.2 The Contractor shall notify the Contract Administrator at least 48 hours prior to delivery of salvaged equipment to allow for arrangements to be made to receive the salvaged equipment. All deliveries shall be made between 8:00 am and 3:30 pm on Business days.

E7.3 The Contractor shall remove and haul all rejected salvage from the site and legally dispose of it.

E7.4 Removal and delivery of salvageable and non-salvageable equipment and material shall be considered incidental to the Contract Work and no additional payment will be made for such Work.

E8. DANGEROUS WORK CONDITIONS

- E8.1 Further to clause C 6.26 of the General Conditions, the Contractor shall be aware that underground chambers, manholes, and sewers are considered a confined space and shall follow the "Guidelines for confined Entry Work" as published by the Manitoba Workplace Safety and Health Division.
- E8.2 The Contractor shall be aware of the potential hazards that can be encountered in underground chambers, manholes and sewers such as explosive gases, toxic gases and oxygen deficiency. The Contractor's Safe Work Plan should address these issues.
- E8.3 The air in a confined space must be tested before entry and continuously during the time that personnel are inside the space. Equipment for continuous monitoring of gases must be explosion-proof and equipped with a visible and audible alarm. The principal tests are for oxygen deficiency, explosion range and toxic gases. Testing equipment must be calibrated in accordance with manufacturer's specifications.
- (a) The Contractor is responsible for all testing requirements.
- E8.4 The Contractor shall ventilate all confined spaces including underground chambers, tunnels, pipes and shafts as required and approved by the Manitoba Workplace Safety and Health Act (the "Act"). If no ventilation is supplied, a worker must wear a respirator or supplied air to enter the confined space.
- E8.5 Workers must wear a respirator or supplied air at all times when entering an underground chamber, manhole or sewer where live sewage is present.
- E8.6 The Contractor shall provide a photo-ionization detector (PID) and toxic gas detector on site at all times to monitor potential hydrocarbon vapours and hydrogen sulphide, in normal spaces and in confined spaces. The gas detector and safety equipment conforming to the Act shall be made available to the Contract Administrator for his use during inspections.
- E8.7 The Contract Administrator may issue a stop work order to the Contractor if the above guidelines are not being followed. The Contractor shall not resume operations until the Contract Administrator is satisfied the Contractor is following the appropriate procedures. The Contractor shall have no claim for extra time or costs due to the stop work order for not following these safety guidelines.

E9. WATER SERVICE RELOCATION

- E9.1 Description:
- (a) This Specification shall cover the relocation of the 38mm water service. This Specification shall amend and supplement Standard Specifications CW 2110 unless otherwise directed by the Contract Administrator.
- E9.2 Materials:
- (a) Water Service Pipe:
- (i) The water service shall be constructed using 37mm copper pipe or equivalent product from the City of Winnipeg Approved Product list and as per Section B.7.
- E9.3 Equipment:
- (a) All equipment, implements, tools and facilities used shall be of a size and type as required to complete the Work in a reasonable time, approved by the Contract Administrator. The Contractor shall keep all equipment in good Working order, and have sufficient standby equipment available at all times, as required.
- E9.4 Construction Methods:
- (a) Trench Shoring and Excavation:

- (i) Work must be completed in accordance with CW 2030, unless otherwise indicated by the Contract Administrator
- (ii) The Contractor shall take precautionary steps to prevent damage from construction activities to adjacent properties. All damage to adjacent properties caused by the Contractor's activities shall be repaired to, equal or better condition that prior to construction, as approved by the Contract Administrator. No separate measurement or payment will be made for the protection of adjacent private property.

E9.5 Method of Measurement and Payment:

- (a) Relocation of the water service will be measured on a lump sum basis and paid for at the contract lump sum price for "Water Service Relocation".

E10. WATERWAY BY-LAW

E10.1 The Contractor shall note that all Works within 107 metres (350 feet) of a riverbank are within the jurisdiction of the Waterway By-Law. The City of Winnipeg, Water and Waste Department, will apply and pay for any Waterway Permits for the project, as required. The Contractor shall adhere to restrictions imposed on the permit.

E10.2 Under no circumstances will stockpiling of any material be permitted within 107 metres of a riverbank or dike.

- (a) The Contractor is responsible for removing excavated materials from the Site immediately.
- (b) The Contractor is responsible for utilizing and placing any backfill brought to the Site immediately.

E11. TEMPORARY USE OF CITY EQUIPMENT

E11.1 City facilities, systems and equipment shall not be used during construction without the Contract Administrator's written permission. The Contract Administrator reserves the right to withdraw said permission if, in his opinion, proper care and maintenance are not provided.

E12. EXISTING PUMPING STATION OPERATION DURING CONSTRUCTION

E12.1 The Clifton Flood Pumping Station is a critical flood pumping station used to prevent flooding of residential and commercial basements in its vicinity. The Contractor is advised that the flood pumping equipment at the Clifton Flood Pumping Station is in operation from February 28 until November 1. Clifton Flood Pumping Station will be allowed to be taken out of operation after November 1, 2019, and after the Contractor's schedule of activities to complete the Work is approved by the Contract Administrator. The Contractor shall plan his construction activities to allow for the minimum amount of disruption time to normal operating status of the stations.

E12.2 The Contractor shall provision for temporary heating and lighting to facilitate construction activities and to prevent all water lines within the station from freezing.

E12.3 The flood pumping equipment at the Clifton Flood Pumping Station shall be put back into service on or prior to the Critical Stage indicated in D16.1(a). Should the Contractor not have the electrical service or electrical distribution installed to facilitate operation of the flood pumps then the Contractor is responsible for providing a temporary 600V generator, 600V distribution, and controls to provide automatic operation of the flood pumps until the permanent installation is completed and accepted by the Contract Administrator.

E12.4 The existing Remote Terminal Unit (RTU) panel is to be relocated from the main floor room to the new electrical room (originally the transformer vault). The Contractor shall plan the Work so as to minimize interruption of the RTU panel to the greatest extent possible to allow the City to monitor wastewater overflows and other Station alarms. Relocation of the RTU panel shall be scheduled and coordinated with the Contract Administrator to ensure minimum interruption to monitoring by the City's SCADA system. It is recommended to utilize the existing 120/240V

service to power the RTU panel until the new 120/240V supply, which is fed from the 600V motor control center, is operational. The Contractor shall not leave the RTU panel unpowered without presence of personnel at the Station.

- E12.5 The existing Combined Sewer Overflow (CSO) equipment at the station shall remain in service to the greatest extent possible to allow the City to monitor wastewater overflows. Relocation of the CSO panel is not within the scope of the work
- E12.6 The Contractor shall cooperate with and provide full access at all times for City personnel to carry out maintenance and operational duties.
- (a) No additional payments will be made for providing access to City forces on the site or any potential affected City crews might have on the Contractor's work.

E13. WORK PLAN

- E13.1 The Contractor is required to develop and submit a detailed work plan to the City for review. The work plan is to include:
- (a) The proposed construction sequence to be followed including all methods to be employed to ensure that no damage occurs to existing structures or adjacent properties within or adjacent to an excavation.
- (b) A description of all proposed methods of construction to be implemented.
- (c) Specialized equipment that may be used.
- (d) Any design revisions proposed to accommodate the Contractor's proposed method of construction.
- (e) Water control methods to be utilized during construction, including the Contractor's proposed method for draw down and depressurization of the groundwater till pressures in the area of the excavation and any required surface runoff control measures.
- (f) The Contractor shall respond to any concerns that may be raised by the Contract Administrator's review of the Contractor's construction methods submission.

E14. MOBILIZATION AND DEMOBILIZATION

- E14.1 Description:
- (a) Mobilization and demobilization will include but not be limited to start-up costs, equipment set-up and removal, storage facilities set-up and removal and site cleanup.
- E14.2 Measurements and Payment
- (a) A maximum of 50% of Form B, Item 1 or 5% of the Total Bid Price, whichever is less, may be submitted for progress payment upon mobilization. The remaining amount will be paid out upon demobilization
- (b) The Contractor is eligible for payment of mobilization services when the Contract Administrator is satisfied that:
- (i) The Contractor has met all the Commencement requirements specified in D15.
- (ii) The contractor has mobilized equipment and initiated work on Site.
- E14.3 The Contractor is eligible for payment of demobilization services when the Contract Administrator is satisfied that:
- (a) The Contractor has achieved Substantial Performance;
- (b) The Contractor has demobilized; and
- (c) The Contractor has restored and cleaned up the site.

E15. LANDSCAPING

E15.1 Description:

- (a) This specification shall cover surface restoration and associated items of Work for existing surfaces disturbed by construction activities.

E15.2 Construction Methods:

- (a) Restoration of all existing surface areas disturbed by construction activities including but not limited to excavations for new electrical service equipment and associated conduit and cabling, operation of construction equipment, placement of field office or equipment trailer, snow clearing and where construction materials were stockpiled, shall be restored as follows:
 - (i) Grassed areas: sodding using imported topsoil in accordance with CW 3510.
 - (ii) Gravel surfaces: in accordance with CW 3150.
 - (iii) Asphalt surfaces: match existing base course and asphalt thickness or provide a minimum of 150 millimetres of base course and 75 millimetres of Type 1A Asphaltic concrete whichever is greater, in accordance with CW 3410.
 - (iv) Pavement slabs in accordance with CW 3310.
 - (v) Interlocking pavement stones: CW3330.

E15.3 Measurement and Payment:

- (a) Payment will be based on Form B, Item 2, as accepted and measured by the Contract Administrator.
 - (i) The Contractor is eligible for payment when the Contract Administrator is satisfied that the Contractor has met all the requirements as specified in E20.

E16. CIVIL, STRUCTURAL, AND ARCHITECTURAL WORK

E16.1 Mechanical Openings:

- (a) Create three (3) openings for Mechanical duct. Work. Opening size to be in accordance with Mechanical drawings.

E16.2 Architectural Works:

- (a) Supply and install new exterior vault wall as shown on the drawings. Infill between existing columns with brick, air cap, vapour barrier and OSB board.
- (b) Supply and install new steel stud framing along electrical vault walls and across ceiling as shown on the drawings. Infill with new mineral wool batt insulation and vapour barrier as indicated on drawings and in specifications. Cover with plywood as indicated on drawings, prime and paint.
- (c) Remove and replace existing door on existing electrical vault as indicated on drawings and in specifications.

E16.3 Structural Works:

- (a) Supply materials and construct new electrical equipment foundation c/w piles and associated cap/slab as per drawings and specifications.
- (b) Supply materials and construct new wall c/w insulation in new electrical room.
- (c) Supply materials and construct new egress door opening.

E16.4 Measurement and Payment:

- (a) Payment will be based on Form B, Item 4, as accepted and measured by the Contract Administrator.

- (i) A maximum of 95% may be submitted for progress payments prior to the total completion of the associated services, including the provision of as-built drawing mark-ups and O&M manuals.

E17. MECHANICAL WORK

E17.1 Provide new ventilation and heating system for the new electrical room (existing transformer vault) including but not limited to the following:

- (a) Supply and installation of new, insulated ductwork.
- (b) Supply and installation of new outdoor air and exhaust openings complete with new louvers.
- (c) Supply and installation of a new supply fan and filter.
- (d) Supply and installation of a new electric unit heater.

E17.2 Measurement and Payment:

- (a) Payment will be based on Form B, Item 5, as accepted and measured by the Contract Administrator.
 - (i) A maximum of 95% may be submitted for progress payments prior to the total completion of the associated services, including the provision of as-built drawing mark-ups and O&M manuals.

E18. ELECTRICAL WORK

E18.1 Supply and install temporary electrical provisions as required to complete the work as specified.

E18.2 In the event the Station flood pumps are not placed back into service by the Critical Stage outlined in D16.1(a) then it is the Contractor's responsibility to provide temporary 600V generation, 600V distribution, motor starters, and controls to facilitate automatic operation of the flood pumps until the permanent equipment is commissioned and accepted by the Contract Administrator.

E18.3 Maintain operation of the existing RTU panel and CSO panel during construction. This includes providing and installing temporary wiring and cabling, as required, to maintain the power supply and critical alarm signals to the RTU panel. Refer to E11 for more information.

E18.4 Coordinate with Manitoba Hydro to perform a 4160V service upgrade and removal of the existing 120/240V service. All costs from Manitoba Hydro for their portion of the Work will be billed directly to the City, not the Contractor.

E18.5 Coordinate with Manitoba Hydro for procurement and installation of new 4.16kV metering transformers (current transformers and potential transformers), utility meter, and connection of metering transformers to meter.

E18.6 Remove the following existing equipment:

- (a) Customer-owned 120/240V service equipment, cabling, and conduits,
- (b) Medium voltage service transformers in the transformer vault,
- (c) Current transformers and potential transformers in the transformer vault,
- (d) 4160V and 240V utility meters,
- (e) All support structures in the transformer vault,
- (f) 600V delta bus in transformer vault,
- (g) 600V distribution,
- (h) Flood pump motor starters and associated circuit breakers and disconnect switches,

- (i) Lighting in the transformer vault,
- (j) 120/240V panelboard contactor and sub-panelboard in the motor room,
- (k) RTU panel in the main building
- (l) 600V power monitoring enclosure in main building.
- (m) Any existing conduits, pull boxes, junction boxes, and cabling no longer required.
- (n) 80A motor circuit protector for lift pumps P-L01 and P-L02 in MCC-L01 of lift station
- (o) 13A primary protection for transformer XFMR-L10 in MCC-L01 of lift station

E18.7 Supply and install:

- (a) Light fixtures in the electrical room,
- (b) Pull boxes,
- (c) Junction boxes,
- (d) Cable tray and cables,
- (e) Conduits.

E18.8 Supply, install, and test the following:

- (a) Incoming service equipment, including:
 - (i) 4.16kV Switchgear and metering compartment, SGR-F70
 - (ii) 4160:600V oil filled, pad-mount transformer, XFMR-F70.
 - (iii) 600V customer service termination enclosure, CSTE-F70.
- (b) 600V motor control centres, MCC-F71
- (c) 600-120/240V transformer, XFMR-F71
- (d) 120/240V panelboards
- (e) Emergency lighting systems in the electrical room,
- (f) Grounding rods, ground wells, and associated conductors.
- (g) 40A motor circuit protector for lift pumps P-L01 and P-L02 in MCC-L01 of lift station.
 - (i) Motor circuit protectors shall have an instantaneous setting of 320A
- (h) 15A thermal magnetic breaker for transformer XFMR-L01 in MCC-L01 of lift station.

E18.9 Commission all electrical equipment.

E18.10 Install arc flash labels supplied by the Contract Administrator.

E18.11 Measurement and Payment:

- (a) Payment will be based on Form B, Item 6, as accepted and measured by the Contract Administrator.
 - (i) A maximum of 95% may be submitted for progress payments prior to the total completion of the associated services, including the provision of as-built drawing mark-ups and O&M manuals.

E19. AUTOMATION WORK

E19.1 In the event the Station flood pumps are not placed back into service by the Critical Stage outlined in D16.1(a) then it is the Contractor's responsibility to provide temporary 600V generation, 600V distribution, motor starters, and controls to facilitate automatic operation of the flood pumps until the permanent equipment is commissioned and accepted by the Contract Administrator. Refer to E11 for more information.

E19.2 Supply, install, test, and commission the complete automation system and all instrumentation.

- E19.3 Relocate the existing Remote Terminal Unit (RTU) panel to the new electrical room and reconnect existing instruments via the new RTU junction box. Connect new signals and temperature switch to existing RTU panel directly, not to the RTU marshalling panel, as shown on the drawings.
- E19.4 Supply, install, connect, and test the following:
- (a) Temperature switches
 - (b) Pump emergency stop pushbuttons
- E19.5 Connect and test new instrumentation within MCC-F71 to the existing RTU panel:
- (a) 600V power failure (ESL-F701),
 - (b) Surge protection device (XS,F702)
- E19.6 Install miscellaneous junction boxes as indicated on the drawings.
- E19.7 Contractor to maintain and re-use the following existing equipment. Existing instruments shall be fully tested for operation and adjusted as necessary.
- (a) All RTU panel connections.
- E19.8 Install, test, and commission the HVAC system automation components, including but not limited to the following:
- (a) Setting and verifying the operation of temperature switch TS-F610 for control of the electrical room fan, SF-F60
 - (b) Verifying operation of the electrical room unit heater and associated thermostat control.
- E19.9 Measurement and Payment:
- (a) Payment will be based on Form B, Item 7, as accepted and measured by the Contract Administrator.
 - (i) A maximum of 95% may be submitted for progress payments prior to the total completion of the associated services, including the provision of as-built drawing mark-ups and O&M manuals.

CONTRACTOR SUPPLIED STANDARDIZED GOODS

E20. GENERAL REQUIREMENTS

- E20.1 Comply with the general requirements of E20 for all Standardized Goods supplied by the Contractor.
- E20.2 Comply with the following Standardization Goods requirements:
- E20.2.1 Control System and Motor Control Equipment in accordance with E21.
 - E20.2.2 Instrumentation in accordance with E22.
- E20.3 Contact the Contract Administrator regarding any potential uncertainty as to whether a good is covered under a standardization agreement.
- E20.4 The Contractor may utilize a Standardization Vendor to provide other goods required under the Contract, in addition to Standardized Goods.
- E20.5 The Contractor shall separately track all goods supplied under each standardization agreement.
- E20.5.1 In the event that one or more Standardization Vendors are utilized to procure goods not covered under a standardization agreement, the Contractor shall ensure such goods are quoted, ordered, tracked and accounted in a separate manner.
- E20.6 Pricing:

- E20.6.1 The City has obtained discounted pricing for Standardized Goods. Each Standardization Vendor is obligated to sell Standardized Goods to all prospective Contractors at the discounted price, provided the goods are for the City of Winnipeg.
- E20.6.2 The Standardization Vendors may at their option provide lump sum pricing for goods packages. The Standardization Vendor is not required to provide breakout pricing details to the Contractor.
- E20.6.3 The Contractor and Subcontractors shall not utilize the City's agreements with the Standardization Vendors for any purpose other than City work.
- E20.6.4 The City may audit the goods purchased from the Standardization Vendors under the standardization agreements and may identify to the Standardization Vendors any goods procured that are not associated with the Contract.
- E20.7 The Contractor is responsible for ensuring that the Material supplied by the Standardization Vendors meets the requirement of the Contract. The Contractor shall review and confirm quotations supplied by the Standardization Vendors to ensure that all required Material is supplied.
- E20.8 Without limiting or otherwise affecting any other term or condition of the Contract, including (non-exhaustive) D28.2.1:
- E20.8.1 The supply of goods through a Standardization Vendor shall not relieve the Contractor of their obligations.
- E20.8.2 Errors or omissions by a Standardization Vendor shall not be a cause for a Change in Work.
- E20.8.3 Delays by a Standardization Vendor shall not be a cause for a Change in Work where the delay could have been avoided through reasonable planning, contingency allocation, or communication by the Contractor.
- E20.8.4 The Contractor shall engage directly with the persons listed as the Standardized Vendor contact in the following sections E21.7 and E22.7, unless otherwise directed by the Contract Administrator.
- E20.9 Submittals
- E20.9.1 Submittals shall be provided for Standardized Goods in accordance with the Specifications and typical industry practice. Submittals shall not be bypassed for Standardized Goods.

E21. STANDARDIZED CONTROL SYSTEM AND MOTOR CONTROL EQUIPMENT

- E21.1 The City has standardized on a specific vendor for the supply and delivery of control system and motor control equipment. The Standardization Vendor was selected via RFP 756-2013 and was awarded to Schneider Electric Canada Inc. (Schneider).
- (a) Refer to E21.7 for contact information.
- (b) Copies of the tender documents are available from City of Winnipeg Material Management's website.
- E21.2 Goods to be procured via this standardization agreement includes but is not limited to:
- (a) Programmable Controllers (PLCs) including all associated components, hardware and software.
- (b) PLC to Infi90 Termination Unit migration cables.
- (c) Programmable Controller Programming Software.
- (d) Dynsim Process Simulator Software.
- (e) HMI System software.
- (f) Historian Server and Client Software.

- (g) Touchscreen HMI systems such as Magellis HMIs.
- (h) Touchscreen HMI Programming Software.
- (i) Motor Control Centers including all components
- (j) Loose VFDs, motor starters, soft starters, and associated components.
- (k) Industrial Ethernet Switches as per design. Note that some Ethernet switches may be specified to be from other vendors due to application requirements. Refer to drawings and specifications.
- (l) Version Management Software.
- (m) Information Server Software.
- (n) Training sessions.

E21.3 For clarity, this standardization agreement does not include:

- (a) Computer workstation hardware including operating systems;
- (b) Computer server hardware, including operating systems and general terminal server / client software;
- (c) Thin client terminals;
- (d) Fused and un-fused disconnect switches not incorporated into a MCC or other motor starter;
- (e) Control stations and pendants not incorporated into a MCC or other motor starter;
- (f) Electrical Transformers not in a MCC or motor starter;
- (g) Panelboards not integrated in a MCC;
- (h) Switchboards / Switchgear not integrated in a MCC;
- (i) System Integration Services (including programming and configuration);
- (j) Control Panels to house PLCs;
- (k) Instrumentation;
- (l) Power supplies not integrated with the PLC / HMI systems; and
- (m) Terminal blocks not integrated with the PLC / HMI systems

E21.4 The following model series shall be utilized unless otherwise indicated in the Specifications, Drawings or otherwise approved by the Contract Administrator:

- (a) M580, and M340 PLCs;
- (b) X80 PLC I/O;
- (c) Unity Pro programming software;
- (d) Vijeo Citect HMI systems;
- (e) Wonderware Historian;
- (f) Local HMI – Magellis HMIGTO or HMIGTU series;
- (g) Model 6 MCC – NEMA rated starters, Intelligent Ethernet (unless otherwise specified);
- (h) Altivar Process 600 series VFDs for variable torque applications; and
- (i) Altivar Process 700 series VFDs for variable torque applications.

E21.5 Commissioning and start-up:

E21.5.1 Except as identified in E21.5.2, commissioning and start-up of all goods purchased under this standardization agreement shall be performed by the Contractor.

E21.5.2 Schneider shall provide MCC start-up services, but not commissioning services. Coordinate with Schneider as required to understand the limitations of Schneider's MCC

start-up services and provide all remaining testing, commissioning and start-up services to provide a complete commissioning and start-up.

E21.6 Training

E21.6.1 Programmable Controller Local Training

(a) Overview

- (i) Provide instruction to designated City personnel in the operation and maintenance of the Schneider programmable controller control system components and associated Schneider tools and equipment.
- (ii) This training shall be provided by Schneider.
- (iii) This training does not relieve the Contractor of other training requirements associated with the control system.

(b) Location

- (i) The location of the training will be in the City of Winnipeg, in a facility provided by the City.
- (ii) The room will be classroom style.

(c) Submittals

- (i) Submit the names and qualifications of the proposed instructors.
- (ii) Submit training proposal complete with hour by hour schedule including brief overview of content of each training segment a minimum of 30 Working Days prior to the anticipated date of beginning of training.

(d) Quality Assurance

- (i) Provide competent instructors thoroughly familiar with all aspects of the programmable controller control system.
- (ii) The Contract Administrator may reject instructors it deems to not be qualified.
- (iii) In the event that the training provided is not satisfactory, reduction of payment may be applied.

(e) Duration

- (i) The training shall be a minimum of one (1) day in duration.

(f) Materials

- (i) Provide equipment, visual and audio aids, and materials.
- (ii) Supply manual for each trainee, describing in detail the information included in each training program.

(g) Attendees

- (i) The attendees are expected to include, but not be limited to: electrical and instrumentation maintenance personnel and programmable controller support specialists.

(h) Content

- (i) Overview of the equipment.
- (ii) Equipment maintenance training including:
 - ◆ Installation
 - ◆ Troubleshooting
 - ◆ Preventative maintenance
 - ◆ Replacement of modules
 - ◆ Network communication troubleshooting and diagnostics.
 - ◆ Fieldbus troubleshooting and diagnostics
 - ◆ Programmable controller redundancy strategies and operation.
- (iii) Maintenance use of programmable controller programming software, including:

- ◆ Basic operation of the software
- ◆ Connecting to programmable controllers
- ◆ Download and upload of software configuration.
- ◆ Diagnostics and troubleshooting.

(i) Number of Sessions:

- (i) Provide a minimum of two (2) sessions.

E21.6.2 MCC and VFD Local Training Session

(a) Overview

- (i) Provide instruction to designated City personnel in the operation and maintenance of the motor control centres and variable frequency drives.
- (ii) This training shall be provided by Schneider.
- (iii) This training does not relieve the Contractor of other training requirements associated with the control system.

(b) Location

- (i) The location of the training will be in the City of Winnipeg, in a facility provided by the City.

(c) Submittals

- (i) Submit the names and qualifications of the proposed instructors.
- (ii) Submit training proposal complete with hour by hour schedule including brief overview of content of each training segment a minimum of 30 Working Days prior to the anticipated date of beginning of training.

(d) Quality Assurance

- (i) Provide competent instructors thoroughly familiar with all aspects of the MCC and VFD systems.
- (ii) The Contract Administrator may reject instructors it deems to not be qualified.
- (iii) In the event that the training provided is not satisfactory, reduction of payment may be applied.

(e) Duration

- (i) The training shall be a minimum of six (6) hours in duration, excluding coffee and lunch breaks.

(f) Materials

- (i) Provide equipment, visual and audio aids, and materials.
- (ii) Supply manual for each trainee, describing in detail the information included in each training program.

(g) Attendees

- (i) The attendees are expected to include, but not be limited to:
- ◆ Electrical and instrumentation maintenance personnel.
 - ◆ Programmable controller support specialists.

(h) Content

- (i) Overview of the equipment.
- (ii) Equipment maintenance training including:
 - ◆ Installation
 - ◆ Troubleshooting
 - ◆ Preventative maintenance
 - ◆ Replacement of modules
 - ◆ Fieldbus diagnostics
 - ◆ Configuration of equipment parameters.

(iii) Maintenance use of equipment configuration software, including:

- ◆ Basic operation of the software
- ◆ Connecting to intelligent starts and VFDs.
- ◆ Download and upload of software configuration.
- ◆ Diagnostics and troubleshooting.

(i) Number of Sessions:

- (i) Provide a minimum of two (2) sessions.

E21.7 The contact information for all quotations and purchases from Schneider is:

Garth Eastman
21 Omands Creek Blvd
Winnipeg, MB, R2R 2V2
Telephone: 204-631-0670
E-mail: garth.eastman@schneider-electric.com

E21.7.1 Goods to be procured directly from Schneider using the Schneider contact:

(a) Further to E21.2, goods to be procured via Schneider includes but is not limited to:

- (i) PLC to Infi90 Termination Unit migration cables;
- (ii) Process Simulator Software;
- (iii) Historian Server and Client Software;
- (iv) Version Management Software; and
- (v) Training sessions.

E21.7.2 Goods to be procured via Eecol Electric (Eecol), as Schneider's High Tech Automation Distributor (HTAD):

(a) Further to E21.2, goods to be procured via Eecol includes but is not limited to:

- (i) Programmable Controllers (PLCs) including all associated components hardware and software;
- (ii) Programmable Controller Programming Software;
- (iii) HMI System software;
- (iv) Touchscreen HMI systems such as Magellis HMIs;
- (v) Touchscreen HMI Programming Software;
- (vi) Motor Control Centers including all components;
- (vii) Loose VFDs, motor starters, soft starters, and associated components; and
- (viii) Industrial Ethernet Switches as per design. Note that some Ethernet switches may be specified to be from other vendors due to application requirements. Refer to drawings and specifications.

(b) The Eecol contact:

Trevor Hambleton
1760 Wellington Avenue
Winnipeg, MB, R3H 0E9
Telephone: 204-774-2800
E-mail: hambleton@eecol.com

(c) All correspondence related to requests-for-quotations to Eecol for goods listed under E21.7.2(a) shall be copied to the Schneider contact listed under E21.7.

(d) For whatever reason, if Eecol is unable to receive or respond to request-for-quotations for goods listed under E21.7.2(a), request-for-quotations may be issued directly to the Schneider contact listed under E21.7.

E21.8 Quotations and orders:

E21.8.1 Reference the following in all quotation requests and purchase orders:

- (a) This Bid Opportunity number; and

(b) A statement indicating:

“This request / purchase order is subject to the Terms and Conditions of City of Winnipeg Request for Proposal RFP 756-2013.”

E22. STANDARDIZED INSTRUMENTATION

- E22.1 The City has standardized on a specific vendor for the supply and delivery of specific instrumentation. The Standardization Vendor was selected via RFP 449-2014 and was awarded to Trans-West Supply Company Inc. (Trans-West).
- (a) Copies of the tender documents are available from City of Winnipeg Material Management’s website.
- E22.2 Goods to be procured via this standardization agreement include but are not limited to:
- (a) Flowmeters – Electromagnetic;
 - (b) Flowmeters – Differential pressure based;
 - (c) Pressure Transmitters including manifold assemblies;
 - (d) Temperature Transmitters including temperature elements and thermowells;
 - (e) Ultrasonic Level Transmitters; and
 - (f) Associated accessories.
- E22.3 For clarity, this standardization agreement does not include:
- (a) Flowmeters - Coriolis;
 - (b) Flowmeters – Thermal Dispersion;
 - (c) Flowmeters – Ultrasonic;
 - (d) Flow switches (i.e. mechanical);
 - (e) Pressure switches;
 - (f) Temperature switches;
 - (g) Radar Level Transmitters; and
 - (h) Level Switches (non-ultrasonic based).
- E22.4 The following model series shall be utilized unless otherwise indicated in the Specifications, Drawings or otherwise approved by the Contract Administrator:
- (a) Magnetic Flowmeter Flowtubes – SITRANS F M MAG 5100W series.
 - (i) SITRANS F M MAG 3100W series may be utilized where specified.
 - (b) Magnetic Flowmeter Transmitters - SITRANS F M MAG 6000 series.
 - (c) Pressure Transmitters - SITRANS P DS III.
 - (d) Temperature Transmitters
 - (i) SITRANS TF (Process Applications)
 - (ii) SITRANS TH400 (HVAC applications)
 - (e) Ultrasonic Level Transmitters
 - (i) Integrated applications: SITRANS Probe LU
 - (ii) Separate controller applications: Multiranger 100/200 with EchoMax transducers.
- E22.5 Field setup and commissioning:
- E22.5.1 Field setup and commissioning of the gas detection systems may be performed by Trans-West under the Standardization Agreement. Coordinate with Trans-West as required to understand the capabilities and limitations of Trans-West’s field setup and commissioning services and provide all remaining services to provide a complete commissioning and start-up.

- E22.5.2 Field setup and commissioning of the standardized instrumentation shall be performed by Trans-West under the standardization agreement for the following:
- (a) The first instrument of each type installed on site; and
 - (b) A minimum of five additional instruments of each type, or 10% of the actuators of that type, whichever is greater.
- E22.5.3 The Contractor may provide field setup and commissioning services for the remaining instrumentation via alternate means, provided that this does not result in a reduction of the services or quality of work.
- E22.5.4 The services provided are to include at all standard manufacturer recommended start-up and commissioning procedures, as well as the following:
- (a) Visual Inspection
 - (i) Inspect instrument for signs of damage,
 - (ii) Verify mechanical and piping installation per drawings and manufacturer requirements,
 - (iii) Verify wiring installation per drawings and manufacturer requirements, and
 - (iv) Inspect electrical terminal compartment for foreign objects.
 - (b) Mechanical Inspection
 - (i) Check all connections and bolts for tightness and to the correct torque,
 - (ii) Check for alignment, and
 - (iii) Ensure appropriate clearances for all connecting bushings and connecting faces.
 - (c) Electrical Inspection
 - (i) Check all power wiring connections for tightness,
 - (ii) Check all fuses in the instrument for continuity,
 - (iii) Confirm input voltage is correct, and
 - (iv) Confirm that the signal / fieldbus connections are correct.
 - (d) Start-up Services
 - (i) Coordinate turning on power to the instrument,
 - (ii) Configure all applicable settings and parameters that could not be configured prior to installation,
 - (iii) Perform functional tests,
 - (iv) Coordinate with City personnel and designated representatives to confirm and finalize the application requirements,
 - (v) Configure and document all settings, as appropriate for the application,
 - (vi) Coordinate to perform test demonstrations to verify instrument performance,
 - (vii) Verify that all configuration values are in the correct state, and
 - (viii) Transfer the configuration settings to on-site personnel.
 - (e) Documentation
 - (i) Provide a signed documented commissioning form for each instrument, in a format acceptable to the Contract Administrator.
 - (f) Travel
 - (i) Provide all travel and accommodations at no additional cost.
 - (g) Personnel:
 - (i) Personnel shall be factory trained in the maintenance, configuration, and service of the proposed instrumentation.
- E22.5.5 Responsibility of the Contractor:

- (a) It is the responsibility of the Contractor to ensure that the installation of the instrumentation is complete and that the instrument is ready to commission prior to engaging Trans-West to commission any instrumentation.

E22.6 Training

E22.6.1 Local Training Session – General Requirements

- (a) Overview:
 - (i) Provide instruction to designated City personnel in the operation, configuration, and maintenance of the proposed instruments and associated components.
- (b) Location:
 - (i) The location of the training will be in the City of Winnipeg, in a facility provided by the City.
 - (ii) The room will be classroom style.
- (c) Submittals:
 - (i) Submit the names and qualifications of the proposed instructors.
 - (ii) Submit training proposal complete with hour by hour schedule including brief overview of content of each training segment a minimum of 30 Calendar Days prior to the anticipated date of beginning of training.
- (d) Quality Assurance:
 - (i) Provide competent instructors thoroughly familiar with all aspects of the instruments.
 - (ii) The Contract Administrator may reject instructors it deems to not be qualified.
 - (iii) In the event that the training provided is not satisfactory, reduction in payment may be applied.
- (e) Materials:
 - (i) Provide equipment, visual and audio aids, and materials.
 - (ii) Sample instruments of each type shall be provided, along with all equipment required to power and configure the instruments.
 - (iii) Supply manual for each trainee, describing in detail the information included in each training program.
- (f) Attendees:
 - (i) The attendees are expected to include, but not be limited to:
 - ◆ Electrical and instrumentation maintenance personnel.

E22.6.2 Local Training Session – Electromagnetic Flowmeter, Pressure, Temperature

- (a) Provide local training sessions, in accordance with E22.6.1:
- (b) Duration:
 - (i) Each training session shall be a minimum of six (6) hours in duration, excluding coffee and lunch breaks.
 - (ii) Each day shall be assumed to be independent of other training days, and not necessarily aligned with other on-site work or training.
- (c) Scope:
 - (i) Each training session shall address the complete scope of all products proposed.
- (d) For each instrument type, provide the following training content:
 - (i) Overview of the instrument,
 - (ii) Equipment maintenance training, including:
 - ◆ Installation,
 - ◆ Troubleshooting,

- ◆ Preventative maintenance,
 - ◆ Replacement of components,
 - ◆ Fieldbus network troubleshooting and diagnostics, and
 - ◆ Calibration procedures.
- (iii) Maintenance use of associated software and HART/PROFIBUS parameters, including:
- ◆ Basic operation of software,
 - ◆ Connecting to instruments,
 - ◆ Configuration of parameters,
 - ◆ Download and upload software configuration, and
- (iv) Diagnostics and troubleshooting.
- (e) Number of Sessions:
- (i) Provide a minimum of two (2) sessions for each instrument type.

E22.6.3 Local Training Session – Ultrasonic Level

- (a) Provide local training sessions:
- (b) Duration:
- (i) Each training session shall be a minimum of three (3) hours in duration, excluding coffee and lunch breaks.
- (ii) Each day shall be assumed to be independent of other training days, and not necessarily aligned with other on-site work or training.
- (c) Scope:
- (i) Each training session shall address the complete scope of all products proposed.
- (d) For each instrument, provide the following training content:
- (i) Overview of the instrument,
- (ii) Equipment maintenance training, including:
- ◆ Installation,
 - ◆ Troubleshooting,
 - ◆ Preventative maintenance,
 - ◆ Replacement of components,
 - ◆ Fieldbus network troubleshooting and diagnostics, and
 - ◆ Calibration procedures.
- (iii) Maintenance use of associated software and HART/PROFIBUS parameters, including:
- ◆ Basic operation of software,
 - ◆ Connecting to instruments,
 - ◆ Configuration of parameters,
 - ◆ Download and upload software configuration, and
 - ◆ Diagnostics and troubleshooting.
- (e) Number of Sessions:
- (i) Provide a minimum of two (2) sessions for each instrument type.

E22.6.4 Electromagnetic Flowmeter Calibration Verification Tool Training

- (a) Provide local training sessions:
- (b) Provide one training session per unit supplied, to instruct designated City personnel in the operation, configuration, and maintenance of the proposed instruments and associated components.

- (c) The location of the training will be in the City of Winnipeg, in a facility provided by the City.
- (d) Provide competent instructors thoroughly familiar with all aspects of the verification tool.
 - (i) The Contract Administrator may reject instructors it deems to not be qualified.

E22.6.5 Each training session shall be a minimum of four (4) hours in duration, excluding coffee and lunch breaks, or longer as required to instruct personnel in the required operation.

E22.7 The contact for all quotations and purchases:

Amurthan (Amu) Abimanan Branch Manager
126 Bannister Road
Winnipeg, MB, R3R 0S3
Telephone: 204-783-0100
Mobile: 204-782-1864
E-mail: amu@transwest-mb.com

E22.8 Quotations and orders:

E22.8.1 Reference the following in all quotation requests, quotations \ proposals, purchase orders, and invoices:

- (a) This Bid Opportunity number; and
- (b) A statement indicating:
"This request / purchase order is subject to the Terms and Conditions of City of Winnipeg Request for Proposal RFP 449-2014."