



THE CITY OF WINNIPEG

TENDER

TENDER NO. 195-2024

**MACLEAN REGIONAL PUMPING STATION VALVE HOUSE ELECTRICAL
UPGRADE**

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 Maclean Regional Pumping Station Valve House Electrical Upgrade

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 12:00 noon Winnipeg time, May 3, 2024.

B2.2 The Contract Administrator or the Manager of Purchasing 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 at 10:00 a.m. on April 16, 2024 to provide Bidders access to the Site.

B3.2 The Bidder is advised that Site access into facilities is restricted, and Site viewing is limited. The City will provide access into facilities where the Work will be done.

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.

B3.4 The Bidder is responsible for inspecting the Site, the nature of the Work to be done and all conditions that might affect their Bid or their performance of the Work and shall assume all risk for conditions existing or arising in the course of the Work which have been or could have been determined through such inspection.

B3.5 Although attendance at the Site investigation is not mandatory, the City strongly suggests that the Bidder attend.

B3.6 Access to view the Site can only be made under the supervision of an authorized City representative.

B3.7 The Bidder is required to register for the Site investigation by 4:00 p.m. April 12, 2024, by contacting the Contract Administrator identified in D6.1.

B3.8 Bidders registered for the Site investigation must provide the Contract Administrator identified in D6.1 with a Global Sanctions & PEP Check obtained not earlier than one (1) year prior to the Site investigation.

(a) The Global Sanctions & PEP Check can be obtained from Sterling BackCheck. Bidders will need to setup a Sterling BackCheck account prior to requesting individual background checks. This process should be done seventy-two (72) hours prior to requesting the first check. The account can be setup using the following link:

<https://forms.sterlingbackcheck.com/partners/platform2-en.php?&partner=winnipegcity>

Note that the check will take a minimum of forty-eight (48) hours to complete. Refer to PART F – Security Clearance for further information.

(b) The results of the Global Sanctions & PEP Check must be received by the City directly through Sterling Talent Solutions. Bidders must set up an account with Sterling Talent Solutions under their company name and grant Sterling Talent Solutions permission to share the results of the Global Sanctions & PEP Check with the City of Winnipeg.

B3.9 Bidders will not be allowed to take pictures at the Site investigation. The Bidder may request pictures of specific areas from the Contract Administrator. The pictures will be then issued to all the Bidders registered for the Site investigation.

B3.10 CSA approved steel toe safety footwear is required for all personnel attending the Site investigation.

B4. ENQUIRIES

B4.1 All enquiries shall be directed to the Contract Administrator identified in D6.1.

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.

B4.6 Any enquiries concerning submitting through MERX should be addressed to:
MERX Customer Support
Phone: 1-800-964-6379
Email: merx@merx.com

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.

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 MERX website at www.merx.com.

B6.4 The Bidder is responsible for ensuring that they have received all addenda and is advised to check the MERX 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/Proposal. 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 D6.

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; and
- (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 their 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 they wish 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 their 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 B18.

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.

B8. BID COMPONENTS

B8.1 The Bid shall consist of the following components:

- (a) Form A: Bid/Proposal;
- (b) Form B: Prices;
- (c) Form G1: Bid Bond and Agreement to Bond.

B8.2 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.

B8.3 The Bid shall be submitted electronically through MERX at www.merx.com.

B8.3.1 Bids will **only** be accepted electronically through MERX.

B8.4 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).

B9. BID

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

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

- (a) if the Bidder is a sole proprietor carrying on business in their own name, their 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; or
- (d) if the Bidder is carrying on business under a name other than their 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 (2) 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/Proposal, 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/Proposal shall be signed in accordance with the following requirements:

- (a) if the Bidder is a sole proprietor carrying on business in their 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 their duly authorized officer or officers; or
- (d) if the Bidder is carrying on business under a name other than their 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/Proposal should be entered below such signatures.

B9.5 If a Bid is submitted jointly by two (2) 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 D32. Any such costs shall be determined in accordance with D32.

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 The Bidder shall enter the Total Bid Price from Form B: Prices into the Total Bid Price field in MERX.

B10.5.1 Bidders are advised that the calculation indicated in B18.4 will prevail over the Total Bid Price entered in MERX.

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 Further to C3.2, 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 their 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 their 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 their 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 their 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 their 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 their sole discretion:

- (a) disqualify a Bidder that fails to disclose a perceived, potential or actual Conflict of Interest of the Bidder or any of their 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 their 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 their 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 their 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;
- (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, Purchasing Division website <https://www.winnipeg.ca/matmgt/Templates/files/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;
- (b) be fully capable of performing the Work required to be in strict accordance with the terms and provisions of the Contract;
- (c) have a written workplace safety and health program if required pursuant to The Workplace Safety and Health Act (Manitoba);
- (d) have completed the Accessible Customer Service online training required by the Accessibility for Manitobans Act (AMA) (see B13.5 and D8);
- (e) have a Licenced Electrical Contractor as defined in D5; and
- (f) ensure that all personnel working at the Site have security clearances as described in PART F - Security Clearance that have been reviewed and accepted by the City.
- 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, Purchasing Division website at <http://www.winnipeg.ca/matmgt/>).
- B13.5 Further to B13.3(d), the Bidder acknowledges they and all Subcontractors have obtained training required by the Accessibility for Manitobans Act (AMA) available at <http://www.accessibilitymb.ca/training.html> for anyone that may have any interaction with the public on behalf of the City of Winnipeg.
- B13.6 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.
- B13.7 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 include in their Bid Submission Bid security in the form of a digital 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 Form G1: Bid Bond and Agreement to Bond, available on The City of Winnipeg, Corporate Finance, Purchasing Division website at <https://www.winnipeg.ca/MatMgt/templates/files/Bidsecurity.pdf>.
- B14.2 Bid security shall be submitted in a digital format meeting the following criteria:
- (a) the version submitted by the Bidder must have valid digital signatures and seals;
 - (b) the version submitted by the Bidder must be verifiable by the City with respect to the totality and wholeness of the bond form, including: the content; all digital signatures and digital seals; with the surety company, or an approved verification service provider of the surety company;
 - (c) the version submitted must be viewable, printable and storable in standard electronic file formats compatible with the City, and in a single file. Allowable formats include pdf;
 - (d) the verification may be conducted by the City immediately or at any time during the life of the bond and at the discretion of the City with no requirement for passwords or fees; and
 - (e) the results of the verification must provide a clear, immediate and printable indication of pass or fail regarding B14.2(b).
- B14.3 Bonds failing the verification process will not be considered to be valid and the Bid shall be determined to be non-responsive in accordance with B18.1(a).
- B14.4 Bonds passing the verification process will be treated as original and authentic.
- B14.4.1 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.
- B14.5 The Bid security of the successful Bidder and the next two (2) lowest evaluated responsive and responsible Bidders will be released by the City when a Contract for the Work has been duly formed with 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.
- B14.6 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 not be opened publicly.
- 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 MERX website at www.merx.com.
- B15.3 After award of Contract, the name(s) of the successful Bidder(s) and their Contract amount(s) will be available on the MERX website at www.merx.com.
- 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/Proposal.
- B16.2 The acceptance by the City of any Bid shall not release the Bids of the next two (2) 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 formed 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/Proposal.

B17. WITHDRAWAL OF BIDS

- B17.1 A Bidder may withdraw their Bid without penalty at any time prior to the Submission Deadline.

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; and
 - (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 their Bid or in other information required to be submitted, that they are 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 may determine the unit price by dividing the Amount (extended price) by the approximate quantity, for the purposes of evaluation and payment.
- B18.4.2 Bidders are advised that the calculation indicated in B18.4 will prevail over the Total Bid Price entered in MERX.

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 (1) 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 their own forces;

- (d) only one (1) 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 D32 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 B18.
- B19.4.1 Following the award of Contract, a Bidder will be provided with information related to the evaluation of their Bid upon written request to the Contract Administrator.

PART C - GENERAL CONDITIONS

C0. GENERAL CONDITIONS

- C0.1 The *General Conditions for Construction* (Revision 2020 01 31) 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, Purchasing Division website at http://www.winnipeg.ca/matmgt/gen_cond.stm
- C0.2 A reference in the Tender 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. FORM OF CONTRACT DOCUMENTS

D2.1 Notwithstanding C4.1(c) and C4.4, the Contract Documents will be provided to the Contractor electronically and there will be no requirement for execution and return to the City by the Contractor. Accordingly, the provisions under C4.4(a) and C4.4(b) are no longer applicable.

D3. SCOPE OF WORK

D3.1 The Work to be done under the Contract shall consist generally of the replacement of the motor control centre (MCC) in the MacLean Regional Pumping Station (MacLean RPS) Valve House, replacement of valve actuators, and miscellaneous replacement of electrical components and devices.

D3.2 The major components of the Work are as follows:

- (a) the provision of all equipment, material, and labour to minimize the outages to the Valve House during construction;
- (b) the planning and staging of construction activities to minimize the quantity and duration of power outages and reservoir shutdowns;
- (c) the supply of temporary power including generator, service connections and temporary distribution to the facility to accommodate construction activities and operation of the system to minimize outages per the Contract. The minimum power requirement of thirty (30) kVA, six hundred (600) V three phase;
- (d) the demolition of the existing MCC, actuators, and associated components to be replaced;
- (e) the provision, installation, and incorporation of a new local control panel (LCP-R800) complete with all required systems, components, programming using City provided function blocks, and termination of new and existing field devices;
 - (i) the MacLean RPS PLC programs are currently being updated to use function blocks. The Work associated with this Contract will require the Contractor to integrate the relevant portions of the PLC programming into LCP-R800, configure and program the HMI, and develop the communication requirements back to the MacLean main control panel;
- (f) the provision, installation, and incorporation of network architecture to connect LCP-R800 back to the main control panel in the MacLean RPS;
- (g) the provision, installation, and incorporation of a new MCC (MCC-R740) complete with all required systems and components;
- (h) the provision of motor starter control and programming;
- (i) the provision of configuration set points and programming that are Site specific for each motor starter, instrument, intelligent motor starter; and all other electrical systems;
- (j) the provision, installation, and incorporation of a new one hundred twenty (120)/two hundred eight (208) V panel (PNL-R741) and transformer (XFMER-R741) complete with all required systems and component;
- (k) the provision, installation, and incorporation of new lighting system including luminaires, cabling, conduits, wiring devices, supports, cable trays, switches and terminations;

- (l) the provision, installation, and incorporation of new and existing power cabling, conduits, cable trays, wiring devices, supports, and terminations for existing motors, heaters, and other new and existing electrical loads;
- (m) the provision, installation, and incorporation of seven (7) new actuators associated with the operation of the MacLean Valve House, MacLean Reservoir, and MacLean RPS (new cabling systems are required for LSV-1, LSV-2, and LSV-3 and re-termination of the existing cables is required for the four actuators external to the MacLean Valve House);
- (n) the provision for commissioning of the systems;
- (o) the provision of two (2) two-hour training sessions for the Water and Waste instrumentation staff beyond direction provided during commissioning; and
- (p) the provision of asbestos abatement to accommodate the Work.

D3.3 The following shall apply to the Services:

- (a) City of Winnipeg Green Building Policy: New City-Owned Buildings and major additions;
<http://clkapps.winnipeg.ca/DMIS/DocExt/ViewDoc.asp?DocumentTypeId=2&DocId=5989>
- (b) Universal Design Policy
<http://clkapps.winnipeg.ca/DMIS/DocExt/ViewDoc.asp?DocumentTypeId=2&DocId=3604>
- (c) City of Winnipeg Water and Waste Department WWD CAD/GIS Standards;
<https://winnipeg.ca/waterandwaste/pdfs/dept/CAD-GIS-Specifications.pdf>
- (d) City of Winnipeg Water and Waste Department Identification Standard; and
<https://legacy.winnipeg.ca/waterandwaste/pdfs/dept/IdentificationStandard.pdf>
<https://legacy.winnipeg.ca/waterandwaste/pdfs/dept/WWD%20Identification%20Standard%20Appendices%20R05.pdf>
- (e) City of Winnipeg Water and Waste Department Electrical Design Guide.
<https://legacy.winnipeg.ca/waterandwaste/pdfs/dept/ElectricalDesignGuide.pdf>

D4. SITE INVESTIGATION DUE DILIGENCE AND RISK

D4.1 Notwithstanding C3.1, the Contractor acknowledges that the Site investigation reports and other Site information included in this Tender have been provided to it and may be relied upon by the Contractor to the extent that the Contractor uses Good Industry Practice in interpreting such report(s) and Site information and carries out the Work in accordance with Good Industry Practice based upon such report(s) and the information contained in them and such other Site information. In the event that a Site condition related to:

- (a) the location of any utility which can be determined from the records or other information available at the offices of any public authority or person, including a municipal corporation and any board or commission thereof, having jurisdiction or control over the utility;
- (b) the Site conditions, including but not limited to subsurface hazardous materials or other concealed physical conditions;
- (c) the location, nature, quality or quantity of the materials to be removed or to be employed in the performance of the Work;
- (d) the nature, quality or quantity of the Plant needed to perform the Work;
- (e) all matters concerning access to the Site, power supplies, location of existing services, utilities or materials necessary for the completion of the Work; and
- (f) all other matters which could in any way affect the performance of the Work; that could not have been “properly inferable”, “readily apparent” and readily discoverable” using Good Industry Practice by the Contractor, results in additional Work which is a direct result of this newly discovered Site condition, such additional Work will be considered by the City under Changes in Work.

D5. DEFINITIONS

D5.1 When used in this Tender:

- (a) “**A**” means amps;
- (b) “**AC**” means alternating current;
- (c) “**ACM**” means asbestos containing materials;
- (d) “**ACR-F**” means Attenuation to Crosstalk Ratio Far-End;
- (e) “**ACR-N**” means Attenuation to Crosstalk Ratio Near-End;
- (f) “**AI**” means analogue input;
- (g) “**AO**” means analogue output;
- (h) “**ANSI**” means American National Standards Institute;
- (i) “**Authority(ies) Having Jurisdiction**” or “**AHJ**” means an organization, office or individual responsible for enforcing the requirements of a code, standard or bylaw, or for approving equipment, materials, and installation or a procedure, which is typically in reference to the local inspection authority;
- (j) “**As-Built**” means an accurate and complete record of the construction Work undertaken by the Contractor, resulting in adjustments and markups made to the Construction set of documents;
- (k) “**AWG**” means American wire gauge;
- (l) “**Blackout Review Period**” means the period between December 24 and January 2 in each calendar year that will not be considered Business Days with respect to the timeframes noted for review and / or response as set out in this section;
- (m) “**bps**” means bits per second;
- (n) “**CCH**” means Closet Connector Housing;
- (o) “**CEC**” means the Canadian Electrical Code (CSA C22.1) plus all City of Winnipeg amendments to the code, as contained in The Winnipeg Electrical By-Law 86/2018;
- (p) “**Certificate of Final Inspection**” means the certificate of final inspections, obtained from the City of Winnipeg inspections department;
- (q) “**Code**” or “**code**” means the latest local code applicable at the project location. Including but not limited to The Winnipeg Electrical By-Law;
- (r) “**Commissioning Plan**” means document used to detail commissioning requirements, responsibilities, and schedule;
- (s) “**Commissioning Team**” means the parties responsible for commissioning;
- (t) “**CPM**” means Critical Path Method or the critical path identifying the longest stretch of dependent activities and measuring the time to complete the dependent activities start to finish;
- (u) “**dB**” means Decibel;
- (v) “**DC**” means direct current;
- (w) “**Demolish**” means detach items from existing construction and legally dispose of items off site, unless indicated as Removed and Salvaged, or Removed and Reinstalled;
- (x) “**DIP**” means Dual in-line package;
- (y) “**EIO**” means Enhanced Input/Output;
- (z) “**ELTCTL**” means Equal Level Transverse Conversion Transfer Loss;
- (aa) “**Existing to Remain**” means existing items of construction that are not removed and that are not otherwise indicated as being Removed and Salvaged, or Removed and Reinstalled;
- (bb) “**F**” means frequency when discussing electrical current or communication signals;

- (cc) “**FCC**” means Federal Communications Commission;
- (dd) “**Hazardous Substances**” means dangerous substances, dangerous goods, hazardous commodities, and hazardous products which may include asbestos, mercury and lead, printed circuit boards, poisons, corrosive agents, flammable substances, radioactive substances, or other material that can endanger human health or wellbeing or environment if handled improperly as defined by Federal Hazardous Products Act (RSC 1985) including latest amendments;
- (ee) “**HMI**” means Human Machine Interface;
- (ff) “**Hz**” means hertz or cycles per second;
- (gg) “**In**” means nominal discharge current;
- (hh) “**IP68**” means a component designed for water ingress protection during submerged operation over an extended period of time;
- (ii) “**kV**” means kilovolt;
- (jj) “**kVA**” means kilovolt-amp;
- (kk) “**kVARH**” means kilovolt-amp reactive hours;
- (ll) “**kWd**” means kilowatt demand;
- (mm) “**LC**” means Lucent Connector;
- (nn) “**LCP**” means local control panel;
- (oo) “**LED**” means light emitting diode;
- (pp) “**Licenced Electrical Contractor**” means an individual meeting the requirements of the Manitoba Electricians’ Licence Act (C.C.S.M. c. E50) and the Manitoba Electricians Licensing Regulation (186/87 R) and licenced by the City of Winnipeg as having a licence type “A”;
- (qq) “**MCC**” means motor control centre;
- (rr) “**MCOV**” means maximum continuous operating voltage;
- (ss) “**MOV**” means metal oxide varistors;
- (tt) “**MPR**” means Motor Protection Relay;
- (uu) “**MSDS**” or alternatively “**SDS**” means Material Safety Data Sheets or alternatively Safety Data Sheets acceptable to Labour Canada;
- (vv) “**MVA**” means Mega Volt Amp;
- (ww) “**MVAR**” means Mega Volt Amp Reactive;
- (xx) “**MW**” means Megawatts;
- (yy) “**NEMA**” means National Electrical Manufacturers Association;
- (zz) “**NEXT**” means Near-End Crosstalk;
- (aaa) “**NGR**” means neutral grounding resistor;
- (bbb) “**OLTS**” means optical loss test set;
- (ccc) “**OTDR**” means optical time domain reflectometer;
- (ddd) “**PLC**” means programmable logic controller;
- (eee) “**provide**” means to supply, install, and leave in working order all materials and necessary equipment, wiring, supports, access panels, etc., as necessary for item or system indicated;
- (fff) “**PS ACR-N**” means Power Sum Attenuation to Crosstalk Ratio Near-End;
- (ggg) “**PSC**” means pre-stressed concrete;
- (hhh) “**PS NEXT**” means Power Sum Near-End Crosstalk;
- (iii) “**PT**” means potential transformer;

- (jjj) “**PVC**” means polyvinyl chloride;
- (kkk) “**RDS**” means Regional Distribution System for the City’s water supply;
- (lll) “**Remove**” means planned deconstruction and disassembly of electrical items from existing construction including removal of conduit, junction boxes, cabling, and wiring from electrical component to panel taking care not to damage adjacent assemblies designated to remain; legally dispose of items off site, unless indicated as Removed and Salvaged, or Removed and Reinstalled;
- (mmm) “**Remove and Salvage**” means detach items from existing construction and deliver them to the City ready for reuse;
- (nnn) “**Remove and Reinstall**” means detach items from existing construction, prepare them for reuse, and reinstall them where indicated;
- (ooo) “**RFI**” means Request for Information;
- (ppp) “**RJ45**” means Registered Jack 45;
- (qqq) “**RMS**” means Root Mean Square;
- (rrr) “**RPS**” means Regional Pumping Station and their associated structures (e.g., chlorine building, valve house, dewatering building, etc.) for the City’s water supply;
- (sss) “**RSTP**” means Rapid Spanning Tree Protocol;
- (ttt) “**RTD**” means Resistance Temperature Detector;
- (uuu) “**SCCR**” means short circuit control rating;
- (vvv) “**Shutdown and Backout Plan**” means a Contractor prepared document that predefines the procedures, means, and methods to take a critical piece of infrastructure out of commission for the purpose of the construction activity and how and when to backout in the event of time constraints or installation issues;
- (www) “**Standard**” or “**standard**” means the latest by-law, code, guide, guideline, regulation, or standard that is in effect at the project location;
- (xxx) “**Supply Chain Disruption**” means an inability by the Contractor to obtain goods or services from third parties necessary to perform the Work of the Contract within the schedule specified therein, despite the Contractor making all reasonable commercial efforts to procure same. Contractors are advised that increased costs do not, in and of themselves, amount to a Supply Chain Disruption;
- (yyy) “**TCL**” means Transverse Conversion Loss;
- (zzz) “**TIA**” means Telecommunications Industry Association;
- (aaaa) “**TPSH**” means Twisted Shielded Pair Cable;
- (bbbb) “**TSB**” means Technical Systems Bulletin;
- (cccc) “**TVSS**” means Transient Voltage Surge Suppressor sometimes referred to as surge protection device (SPD) is a piece of equipment used to protect lo-voltage electrical systems from damaging transients, spikes, or surges;
- (dddd) “**V**”, “**VAC**” and “**VDC**” means volts, volts alternating current, and volts direct current, respectively;
- (eeee) “**Valve House**” means the structure immediately adjacent to the reservoir which contains the supply valves (LSV-1, LSV-2, and LSV-3), reservoir dewatering pumps, and the MCC and LCP for these systems;
- (ffff) “**VPR**” means voltage protection rating; and
- (gggg) “**WHMIS**” means Workplace Hazardous Materials Information System.

D6. CONTRACT ADMINISTRATOR

- D6.1 The Contract Administrator is Dillon Consulting Limited, represented by:
Jeff Brooks, C.E.T.

Associate

Telephone No. (204) 431-1793

Email Address jbrooks@dillon.ca

- D6.2 At the pre-construction meeting, the Contract Administrator will identify additional personnel representing the Contract Administrator and their respective roles and responsibilities for the Work.

D7. CONTRACTOR'S SUPERVISOR

- D7.1 At the pre-construction meeting, the Contractor shall identify their designated supervisor and any additional personnel representing the Contractor and their respective roles and responsibilities for the Work.

D8. ACCESSIBLE CUSTOMER SERVICE REQUIREMENTS

- D8.1 The Accessibility for Manitobans Act (AMA) imposes obligations on The City of Winnipeg to provide accessible customer service to all persons in accordance with the Customer Service Standard Regulation ("CSSR") to ensure inclusive access and participation for all people who live, work or visit Winnipeg regardless of their abilities.

- D8.1.1 The Contractor agrees to comply with the accessible customer service obligations under the CSSR and further agrees that when providing the Goods or Services or otherwise acting on the City of Winnipeg's behalf, shall comply with all obligations under the AMA applicable to public sector bodies.

- D8.1.2 The accessible customer service obligations include, but are not limited to:
- (a) providing barrier-free access to goods and services;
 - (b) providing reasonable accommodations;
 - (c) reasonably accommodating assistive devices, support persons, and support animals;
 - (d) providing accessibility features e.g. ramps, wide aisles, accessible washrooms, power doors and elevators;
 - (e) inform the public when accessibility features are not available;
 - (f) providing a mechanism or process for receiving and responding to public feedback on the accessibility of all goods and services; and
 - (g) providing adequate training of staff and documentation of same.

D9. UNFAIR LABOUR PRACTICES

- D9.1 Further to C3.2, the Contractor declares that in bidding for the Work and in entering into this Contract, the Contractor and any proposed Subcontractor(s) conduct their respective business in accordance with established international codes embodied in United Nations Universal Declaration of Human Rights (UDHR) <https://www.un.org/en/about-us/universal-declaration-of-human-rights> International Labour Organization (ILO) [https://www.ilo.org/global/lang--en/index.htm](https://www.ilo.org/global/lang-en/index.htm) conventions as ratified by Canada.
- D9.2 The City of Winnipeg is committed and requires its Contractors and their Subcontractors, to be committed to upholding and promoting international human and labour rights, including fundamental principles and rights at work covered by ILO eight (8) fundamental conventions and the United Nations Universal Declaration of Human Rights which includes child and forced labour.
- D9.3 Upon request from the Contract Administrator, the Contractor shall provide disclosure of the sources (by company and country) of the raw materials used in the Work and a description of the manufacturing environment or processes (labour unions, minimum wages, safety, etc.).

- D9.4 Failure to provide the evidence required under D9.3, may be determined to be an event of default in accordance with C18.
- D9.5 In the event that the City, in its sole discretion, determines the Contractor to have violated the requirements of this section, it will be considered a fundamental breach of the Contract and the Contractor shall pay to the City a sum specified by the Contract Administrator in writing (“Unfair Labour Practice Penalty”). Such a violation shall also be considered an Event of Default, and shall entitle the City to pursue all other remedies it is entitled to in connection with same pursuant to the Contract.
- D9.5.1 The Unfair Labour Practice Penalty shall be such a sum as determined appropriate by the City, having due regard to the gravity of the Contractor’s violation of the above requirements, any cost of obtaining replacement goods/ services or rectification of the breach, and the impact upon the City’s reputation in the eyes of the public as a result of same.
- D9.5.2 The Contractor shall pay the Unfair Labour Practice Penalty to the City within thirty (30) Calendar Days of receiving a demand for same in accordance with D9.5. The City may also hold back the amount of the Unfair Labour Practice Penalty from payment for any amount it owes the Contractor.
- D9.5.3 The obligations and rights conveyed by this clause survive the expiry or termination of this Contract, and may be exercised by the City following the performance of the Work, should the City determine, that a violation by the Contractor of the above clauses has occurred following same. In no instance shall the Unfair Labour Practice Penalty exceed the total of twice the Contract value.

D10. FURNISHING OF DOCUMENTS

- D10.1 Upon award of the Contract, the Contractor will be provided with ‘issued for construction’ Contract Documents electronically, including Drawings in PDF format only.

SUBMISSIONS

D11. AUTHORITY TO CARRY ON BUSINESS

- D11.1 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.

D12. SAFE WORK PLAN

- D12.1 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 Documents, if applicable.
- D12.2 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, Purchasing Division website at <http://www.winnipeg.ca/matmgmt/Safety/default.stm>
- D12.3 Notwithstanding B13.4 at any time during the term of the Contract, the City may, at their 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.

D13. INSURANCE

D13.1 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 two million dollars (\$2,000,000.00) inclusive for loss or damage including personal injuries and death resulting from any one accident or occurrence; and
- (c) all risks course of construction insurance including equipment breakdown and testing and commissioning 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 Substantial Performance. If all testing and commissioning has not been completed at Substantial Performance this policy shall remain in effect until ten (10) Calendar Days after all testing and commissioning has been completed.

D13.2 All deductibles shall be borne by the Contractor.

D13.3 All policies shall be taken out with insurers licensed in the Province of Manitoba.

D13.4 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 Documents, as applicable.

D13.5 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.

D14. CONTRACT SECURITY

D14.1 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.

D14.1.1 Where the Contract security is a performance bond, it may be submitted in hard copy or digital format. If submitted in digital format the Contract security must meet the following criteria:

- (a) the version submitted by the Contractor must have valid digital signatures and seals;
- (b) the version submitted by the Contractor must be verifiable by the City with respect to the totality and wholeness of the bond form, including: the content; all digital signatures and digital seals; with the surety company, or an approved verification service provider of the surety company;
- (c) the version submitted must be viewable, printable and storable in standard electronic file formats compatible with the City, and in a single file. Allowable formats include pdf;

- (d) the verification may be conducted by the City immediately or at any time during the life of the bond and at the discretion of the City with no requirement for passwords or fees; and
- (e) the results of the verification must provide a clear, immediate and printable indication of pass or fail regarding D14.1(b).

D14.1.2 Digital bonds failing the verification process will not be considered to be valid and may be determined to be an event of default in accordance with C18.1. If a digital bond fails the verification process, the Contractor may provide a replacement bond (in hard copy or digital format) within seven (7) Calendar Days of the City's request or within such greater period of time as the City in their discretion, exercised reasonably, allows.

D14.1.3 Digital bonds passing the verification process will be treated as original and authentic.

D14.2 The Contractor shall provide the Contract Administrator identified in D6 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 an award letter 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 Documents, if applicable.

D14.3 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 D14.1(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.

D15. SUBCONTRACTOR LIST

D15.1 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 Documents, if applicable.

D16. DETAILED WORK SCHEDULE

D16.1 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 Documents if applicable.

D16.2 The detailed Work schedule shall consist of a "baseline schedule" component showing the planned start and completion dates for all activities/tasks. In addition, the detailed Work schedule shall consist of an "update schedule" component showing the Contractor's updated planned or actual start, progress, and completion dates for each activity/task as construction proceeds in order to compare the Contractor's planned baseline schedule versus actual execution of the Work.

D16.3 The Contractor's planned baseline detailed Work schedule will be reviewed by the Contract Administrator prior to commencement for conformance to the project intent and general conformance to the requirements of the Contract. The Contract Administrator's review does not relieve the Contractor of their responsibility to adhere to the requirements included in the Contract Documents.

D16.4 The Contractor shall not change the baseline portion of the detailed Work schedule once it has been reviewed and accepted by the Contract Administrator without prior consent or until requested by the Contract Administrator.

D16.5 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) capacity to show simultaneously the planned baseline schedule as well as the update schedule for each activity/task.
- D16.5.1 All shall be reviewed by and shall be acceptable to the Contract Administrator. The Contractor shall make all requested changes to the documents as required by the Contract Administrator and re-submit as needed prior to commencing the Work.
- D16.6 Further to D16.5(a), the C.P.M. schedule shall clearly identify the start and completion dates of all of the following activities/tasks making up the Work as well as showing those activities/tasks on the critical path.
- (a) mobilization date of Work on Site;
 - (b) all required shutdowns of power, controls, fire alarms, and the isolation of reservoirs;
 - (c) delivery to Site of the MCC and actuators;
 - (d) start date for the demolition of existing MCC;
 - (e) staging of temporary power connection; transfer to temporary power, transfer from temporary power to the new MCC;
 - (f) operational date of the new MCC;
 - (g) operational dates of the new valve actuators;
 - (h) Substantial Performance;
 - (i) demobilization date of Work on Site;
 - (j) acceptance of final submittals;
 - (k) Total Performance; and
 - (l) Final Acceptance.
- D16.7 Further to D16.5(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.
- D16.8 Without changing the baseline portion of the detailed Work schedule, the Contractor shall accurately update and submit to the Contract Administrator the "update schedule" as an attachment to the weekly detailed Work Plan in accordance with E13.1(b). If the Submittal Schedule is not directly incorporated in the detailed Work schedule, the updated Submittal Schedule shall accompany the updated detailed Work schedule as a paired document.
- D16.9 The Contractor shall monitor the progress of the Work relative to the baseline detailed Work schedule. Should the Contractor's operations fall behind the accepted detailed Work schedule, the Contractor shall, at no change in Contract Price, take corrective action to get back on schedule.

SCHEDULE OF WORK

D17. COMMENCEMENT

- D17.1 The Contractor shall not commence any Work until they are in receipt of an award letter from the Award Authority authorizing the commencement of the Work.
- D17.2 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 D11;
 - (ii) evidence of the workers compensation coverage specified in C6.15;
 - (iii) the Safe Work Plan specified in D12;
 - (iv) evidence of the insurance specified in D13;

- (v) the Contract security specified in D14;
 - (vi) the Subcontractor list specified in D15;
 - (vii) the detailed Work schedule specified in D16;
 - (viii) the direct deposit application form specified in D28;
 - (ix) the Submittal Schedule specified in Section 01 33 00 – Submittal Procedures in the NMS; and
 - (x) evidence of security clearances for all staff and Subcontractors on Site specified in PART F - Security Clearance;
- (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.
- D17.3 The Contractor shall not commence the Work associated with the decommissioning of the existing MCC, PLC, and valve actuators on the Site before the acceptance of the upgrade devices are on Site.
- D17.4 The City intends to award this Contract by July 2, 2024.
- D17.4.1 If the actual date of award is later than the intended date, the dates specified for Commencement, Substantial Performance, and Total Performance will be adjusted by the difference between the aforementioned intended and actual dates.

D18. WORK BY OTHERS

- D18.1 Further to C6.25, the Contractor's attention is directed to the fact that other Contractors, the personnel of Utilities and the staff of the City may be working within the project limit, approach roadway, adjacent roadways or right-of-way. The activities of these agencies may coincide with the Contractors execution of Work and it will be the Contractor's responsibility to cooperate to the fullest extent with other personnel working in the area, and such cooperation is an obligation of the Contractor under the terms of Contract.
- D18.2 Work by others on or near the Site, which may impact activities of this Work, will include but not necessarily be limited to:
- (a) SCADA and PLC upgrades throughout the MacLean RPS and Reservoir Site for 2024;
 - (b) cooling and natural gas engine upgrades in the MacLean RPS for 2024;
 - (c) chlorine disinfection system upgrades in the MacLean RPS has construction planned for 2024 and 2025;
 - (d) the potential Valve House Heating, Ventilation, and Air Conditioning and architectural upgrades; and
 - (e) City of Winnipeg Water and Waste's ongoing operation and maintenance of the infrastructure.
- D18.3 Further to D18.1 the Contractor shall cooperate and coordinate all activities with all parties performing required Work by Others identified in D18.1 and accommodate the necessary area on Site required for the Work by Others to complete the Work.
- D18.4 The City will provide updated schedules for work by others undertaken at the Site, including any other work by others not identified above.
- D18.5 For clarity, the City intends to work collaboratively with the Contractor and the work being undertaken by other to minimize the potential impacts to the Work.
- D18.6 The Contractor shall coordinate access to facilities, laydown areas, and shutdown requirements as they relate to work by others undertaken at each facility so as not to hinder, delay, or interfere with those projects and/or City forces in the performance of their work.

D19. SUBSTANTIAL PERFORMANCE

- D19.1 The Contractor shall achieve Substantial Performance by September 29, 2025.
- D19.2 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.
- D19.3 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.

D20. TOTAL PERFORMANCE

- D20.1 The Contractor shall achieve Total Performance by October 31, 2025.
- D20.2 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.
- D20.3 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.

D21. LIQUIDATED DAMAGES

- D21.1 If the Contractor fails to achieve 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 Calendar Day for each and every Calendar Day following the days fixed herein for same during which such failure continues:
- (a) Substantial Performance – one thousand seven hundred dollars (\$1,700.00);
 - (b) Total Performance – one thousand seven hundred dollars (\$1,700.00)
 - (c) Substantial Performance and Total Performance – one thousand seven hundred dollars (\$1,700.00).
- D21.2 The amounts specified for liquidated damages in D21.1 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.
- D21.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

D22. SUPPLY CHAIN DISRUPTION SCHEDULE DELAYS

- D22.1 The City acknowledges that the schedule for this Contract may be impacted by Supply Chain Disruption. Commencement and progress of the Work shall be performed by the Contractor with due consideration to the delivery requirements and schedule identified in the Contract, in close consultation with the Contract Administrator.
- D22.2 If the Contractor is delayed in the performance of the Work by reason of Supply Chain Disruption, the Work schedule may be adjusted by a period of time equal to the time lost due to such delay and costs related to such delay will be determined as identified herein.
- D22.3 A minimum of seven (7) Calendar Days prior to the commencement of Work, the Contractor shall declare whether a Supply Chain Disruption will affect the start date. The Contractor shall

provide sufficient evidence that the delay is directly related to a Supply Chain Disruption, including but not limited to evidence related to availability ordering of Material or Goods, production and/or manufacturing schedules or availability of staff as appropriate.

- D22.4 For any delay related to suppl chain disruption and identified after Work has commenced, the Contractor shall within seven (7) Calendar Days of becoming aware of the anticipated delay declare the additional delay and shall provide sufficient evidence as indicated in D22.3. Failure to provide this notice will result in no additional time delays being considered by the City.
- D22.5 The Work schedule, including the durations identified in D19 to D20 where applicable, will be adjusted to reflect delays accepted by the Contract Administrator. No additional payment will be made for adjustment of schedules except where seasonal work, not previously identified in the Contract, is carried over to the following construction season.
- D22.6 Where Work not previously identified is being carried over solely as a result of delays related to Supply Chain Disruption, as confirmed by the Contract Administrator, the cost of temporary works to maintain the Work in a safe manner until Work recommences, will be considered by the Contract Administrator. Where the Work is carried over only partially due to Supply Chain Disruption, a partial consideration of the cost of temporary works will be considered by the Contract Administrator.
- D22.7 Any time or cost implications as a result of Supply Chain Disruption and in accordance with the above, as confirmed by the Contract Administrator, shall be documented in accordance with C7.

CONTROL OF WORK

D23. JOB MEETINGS

- D23.1 Regular bi-weekly job meetings will be held for the duration of the Work. The job meetings are anticipated to occur at the Contract Administrator's office but may be changed if agreed to by the City, Contract Administrator, and the Contractor. These meetings shall be attended by a minimum of one (1) representative of the Contract Administrator, one (1) representative of the City, and one (1) 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.
- D23.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever they deem it necessary.
- D23.3 The Contract Administrator will record and distribute meeting minutes to the Contractor and the City.

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

- D24.1 Further to C6.26, 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).

D25. THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA) – QUALIFICATIONS

- D25.1 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 their sole discretion and acting reasonably, require updated proof of compliance, as set out in B13.4.

D26. INTELLECTUAL PROPERTY AND OWNERSHIP OF INFORMATION

- D26.1 All reports, Drawings, calculations, designs, plans, leading practices, Specifications, PLC programming, SCADA system programming, and other data, information and all material utilized, collected, compiled, drawn and produced (including digital files) to carry out the Work contemplated in this Contract (collectively "Submittals") are solely the property of the City, with the exception of the materials and information in the possession of the Contractor prior to the commencement of the Work, and the Contractor's copyright in such property, if any, is hereby assigned to the City.
- D26.1.1 For greater clarity, any disclaimer that is included in or on any Submittals to limit the use by the City of such Submittal, as provided for under this Contract, shall have no force and effect and will not alter the terms of this Contract, unless the terms of that disclaimer are expressly agreed to by both parties in writing as an amendment to this Contract.
- D26.2 Without prejudice to any rights which may exist in the City by virtue of any prerogative rights and powers or by virtue of the Copyright Act of Canada, as amended from time to time, the Contractor assigns all present and future rights in the copyright in the Submittals absolutely and immediately to the City. Furthermore, the City or any third party granted a right through the City, may use the Submittals or any part thereof for, or apply it to, other studies or projects without the Contractor's consent and without any payment or compensation whatsoever. If the City or any third party granted a right through the City elects to so use or apply the Submittals to another project, it does so at its own risk and the Contractor shall not be liable in any way for such other use or application or any adverse consequences flowing therefrom.
- D26.3 The Contractor expressly waives any claim to moral rights, as provided for in the law of copyright, over the Submittals or any part thereof, created by the Contractor, and the Contractor shall ensure that any agent or employee of the Contractor shall have waived all moral rights, as provided for in the law of copyright, over the Submittals or any part thereof.
- D26.4 All concepts, products, or processes produced by or resulting from the performance of the Work by the Contractor, or which are otherwise developed or first reduced to practise by the Contractor in the performance of the Work, and which are patentable, capable of trademark or otherwise, shall be the property of the City.
- D26.5 The Contractor shall have a permanent, non-exclusive, royalty-free licence to use any concept, product, or process, which is patentable, capable of trademark, or otherwise, produced by, or resulting from the performance of the Work by the Contractor, for the duration of the Work, and for no other purpose or project.
- D26.6 The Contractor shall not infringe any copyright, trademark, patent, industrial design, trade secret, moral, or other proprietary right of a third party and shall indemnify the City from all claims arising out of such an infringement.
- D26.7 If the City or the Contractor is served with a claim or notice of an infringement or alleged infringement of any patent, copyright, trademark or trade name, the party so served shall immediately give notice thereof to the other party.
- D26.8 The Contractor shall assist the City in every reasonable way to secure, maintain, and defend for the City's benefit all copyrights, patent rights, trade secret rights, and other proprietary rights in and to the Submittals.
- D26.9 If the City or the Contractor is prevented by injunction from using any design, device, material, or process covered by letters patent, copyright, trademark, or trade name, the Contractor shall, at its own cost, substitute an equally suitable design, device, material, or process, all subject to the prior approval of the Contract Administrator.
- D26.10 The Contractor shall provide all Submittals in a format that allows the City to readily use those Submittals. Requirements related to the submission of Submittals are set out in Section 01 33 00 – Submittal Procedures in the NMS.

D26.10.1 For greater clarity, the use of proprietary software or programming languages will not be permitted.

D27. REQUEST FOR INFORMATION

D27.1 Requests for information regarding the Work or Contract Documents shall be in accordance with Section 01 33 00 – Submittal Procedures in the NMS.

D27.2 For clarity, the requests for information noted here are for during construction (i.e., following award of the Contract). Any enquiries from Bidders shall be in accordance with B4 of the Tender.

MEASUREMENT AND PAYMENT

D28. PAYMENT

D28.1 Further to C12, the City shall make payments to the Contractor by direct deposit to the Contractor's banking institution, and by no other means. Payments will not be made until the Contractor has made satisfactory direct deposit arrangements with the City. Direct deposit application forms are at https://winnipeg.ca/finance/files/Direct_Deposit_Form.pdf.

D28.2 Further to **E6**, no payment will be made for Cash Allowances other than as set out in **E18.4**.

WARRANTY

D29. WARRANTY

D29.1 Notwithstanding C13.2, the warranty period shall begin on the date of Total Performance and shall expire one (1) year thereafter, except where longer warranty periods are specified in the respective Specification sections, unless extended pursuant to C13.2.1 or C13.2.2, in which case it shall expire when provided for thereunder.

D29.1.1 For the purpose of Contract security, the warranty period shall be one (1) year.

D29.2 Notwithstanding C13.2, the Contract Administrator may permit the warranty period for a portion or portions of the Work to begin prior to the date of Total Performance if a portion of the Work cannot be completed because of unseasonable weather or other conditions reasonably beyond the control of the Contractor but that portion does not prevent the balance of the Work from being put to its intended use.

D29.2.1 In such case, the date specified by the Contract Administrator for the warranty period to begin shall be substituted for the date specified in C13.2 for the warranty period to begin.

DISPUTE RESOLUTION

D30. DISPUTE RESOLUTION

D30.1 If the Contractor disagrees with any opinion, determination, or decision of the Contract Administrator, the Contractor shall act in accordance with the Contract Administrator's opinion, determination, or decision unless and until same is modified by the process followed by the parties pursuant to D30.

D30.2 The entire text of C21.4 is deleted, and amended to read: "Intentionally Deleted".

D30.3 The entire text of C21.5 is deleted, and amended to read:

- (a) If Legal Services has determined that the Disputed Matter may proceed in the Appeal Process, the Contractor must, within ten (10) Business Days of the date of the Legal Services Response Letter, submit their written Appeal Form, in the manner and format set out on the City's Purchasing Website, to the Chief Administrative Officer, and to the

Contract Administrator. The Contractor may not raise any other disputes other than the Disputed Matter in their Appeal Form.

- D30.4 Further to C21, prior to the Contract Administrator's issuance of a Final Determination, the following informal dispute resolution process shall be followed where the Contractor disagrees with any opinion, determination, or decision of the Contract Administrator ("Dispute"):
- (a) In the event of a Dispute, attempts shall be made by the Contract Administrator and the Contractor's equivalent representative to resolve Disputes within the normal course of project dealings between the Contract Administrator and the Contractor's equivalent representative.
 - (b) Disputes which in the reasonable opinion of the Contract Administrator or the Contractor's equivalent representative cannot be resolved within the normal course of project dealings as described above shall be referred to a without prejudice escalating negotiation process consisting of, at a minimum, the position levels as shown below and the equivalent Contractor representative levels:
 - (i) the Contract Administrator;
 - (ii) Supervisory level between the Contract Administrator and applicable Department Head; and
 - (iii) Department Head.
- D30.5 Names and positions of Contractor representatives equivalent to the above City position levels shall be determined by the Contractor and communicated to the City at the pre-commencement or kick off meeting.
- D30.6 As these negotiations are not an adjudicative hearing, neither party may have legal counsel present during the negotiations.
- D30.7 Both the City and the Contractor agree to make all reasonable efforts to conduct the above escalating negotiation process within twenty (20) Business Days, unless both parties agree, in writing, to extend that period of time.
- D30.8 If the Dispute is not resolved to the City and Contractor's mutual satisfaction after discussions have occurred at the final escalated level as described above, or the time period set out in D30.7, as extended if applicable, has elapsed, the Contract Administrator will issue a Final Determination as defined in C1.1(v), at which point the parties will be governed by the Dispute Resolution process set out in C21.

INDEMNITY

D31. INDEMNITY

- D31.1 Indemnity shall be as stated in C17.
- D31.2 Notwithstanding C17.1, the Contractor shall save harmless and indemnify the City in the amount of twice the Contract Price or five million dollars (\$5,000,000.00), whichever is greater, against all costs, damages or expenses arising from actions, claims, demands and proceedings, by whomsoever brought, made or taken as a result of negligent acts or negligent omissions of the Contractor, their Subcontractors, employees or agents in the performance or purported performance of the Work, and more particularly from:
- (a) accidental injury to or death of any person whether retained by or in the employ of the Contractor or not, arising directly or indirectly by reason of the performance of the Work, or by reason of any trespass on or damage to property;
 - (b) damage to any property owned in whole or in part by the City, or which the City by duty or custom is obliged, directly or indirectly, in any way or to any degree, to construct, repair or maintain;
 - (c) damage to, or trespass or encroachment upon, property owned by persons other than the City;

- (d) any claim for lien or trust claim served upon the City pursuant to The Builders' Liens Act;
- (e) failure to pay a Workers Compensation assessment, or Federal or Provincial taxes;
- (f) unauthorized use of any design, device, material, or process covered by letters patent, copyright, trademark or trade name in connection with the Work; and
- (g) inaccuracies in any information provided to the City by the Contractor.

D31.3 Further to C17, The City shall save harmless and indemnify the Contractor in the amount of twice the Contract Price or five million dollars (\$5,000,000.00), whichever is greater, against all costs, damages or expenses arising from actions, claims, demands and proceedings, by whomsoever brought, made or taken as a result of negligent acts or negligent omissions of the City, their employees or agents in the performance of its obligation under the Contract.

THIRD PARTY AGREEMENTS

D32. FUNDING AND/OR CONTRIBUTION AGREEMENT OBLIGATIONS

D32.1 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.

D32.2 Further to D32.1, in the event that the obligations in D32 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.

D32.3 For the purposes of D32:

- (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.

D32.4 Modified Insurance Requirements

D32.4.1 If not already required under the insurance requirements identified in D13, the Contractor will be required to provide wrap-up liability insurance in an amount of no less than two million dollars (\$2,000,000.00) 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 their Ministers, officers, employees, and agents shall be added as additional insureds.

D32.4.2 If not already required under the insurance requirements identified in D13, 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.

D32.4.3 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.

D32.4.4 Further to D13.4, 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.

D32.4.5 All policies must be taken out with insurers licensed to carry on business in the Province of Manitoba.

D32.5 Indemnification By Contractor

D32.5.1 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.

D32.5.2 The Contractor agrees that in no event will Canada or Manitoba, their respective officers, servants, employees or agents be held liable for any damages in Contract, tort (including negligence) or otherwise, for:

- (a) any injury to any person, including, but not limited to, death, economic loss or infringement of rights;
- (b) any damage to or loss or destruction of property of any person; or
- (c) any obligation of any person, including, but not limited to, any obligation arising from a loan, capital lease or other long term obligation;

in relation to this Contract or the Work.

D32.6 Records Retention and Audits

D32.6.1 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.

D32.6.2 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 D32.6.1 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.

D32.7 Other Obligations

D32.7.1 The Contractor consents to the City providing a copy of the Contract Documents to the Government of Manitoba and/or the Government of Canada upon request from either entity.

D32.7.2 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.

- D32.7.3 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.
- D32.7.4 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.
- D32.7.5 The Contractor represents and warrants that no current or former public servant or public office holder, to whom the Value and Ethics Code for the Public Sector, the Policy on Conflict of Interest and Post Employment, or the Conflict of Interest Act applies, shall derive direct benefit from this Contract, including any employment, payments, or gifts, unless the provision or receipt of such benefits is in compliance with such codes and the legislation.
- D32.7.6 The Contractor represents and warrants that no member of the House of Commons or of the Senate of Canada or of the Legislative Assembly of Manitoba is a shareholder, director or officer of the Contractor or of a Subcontractor, and that no such member is entitled to any benefits arising from this Contract or from a contract with the Contractor or a Subcontractor concerning the Work.

FORM H1: PERFORMANCE BOND
(See D14)

KNOW EVERYONE 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. 195-2024

Maclean Regional Pumping Station Valve House Electrical Upgrade

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 D14)

KNOW EVERYONE 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. 195-2024

MACLEAN REGIONAL PUMPING STATION VALVE HOUSE ELECTRICAL UPGRADE

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
 - (i) unless claimant shall have given written notice to the Principal and the Surety above-named, within one hundred 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;

- (ii) 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;
 - (iii) 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 their 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, Purchasing Division website at <http://www.winnipeg.ca/matmgt/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:
- (a) Appendix A – Major Equipment List;
 - (b) Appendix B – Submittal List;
 - (c) Appendix C – Electrical Inspection Forms;
 - (d) Appendix D – Asbestos Reports;
 - (e) Appendix E – Laydown Areas;
 - (f) Appendix F – Control Narrative;
 - (g) Appendix G – Historical Documents; and
 - (h) Appendix H – Sample Non-Disclosure Agreement.
- E1.4.1 Due to the sensitive nature of the information regarding critical City infrastructure, the following appendix is confidential:
- (a) Appendix F – Control Narrative.
- E1.4.2 Further to E1.4.1, in order to receive the document(s) included to these Appendices, a written request shall be submitted to the City. Assigned non-disclosure Agreement form will be required prior to issuance of the document(s). A sample non-disclosure agreement has been included in Appendix H – Sample Non-Disclosure Agreement for reference. Upon receipt of the written request and signed non-disclosure agreement form, the requested document(s) will be provided.

NMS SPECIFICATIONS

DIVISION 01 – GENERAL REQUIREMENTS

01 33 00	Submittal Procedures
01 43 33	Contractor's Field Requirements
01 61 00	Common Product Requirements
01 73 00	Execution
01 74 00	Cleaning
01 78 00	Closeout Submittals

DIVISION 02	-	EXISTING CONDITIONS
02 82 00.01		Asbestos Abatement – Minimum Precautions
02 82 00.02		Asbestos Abatement – Intermediate Precautions
DIVISION 07	-	THERMAL AND MOISTURE PROTECTION
07 84 00		Fire Stopping
DIVISION 09	-	FINISHES
09 91 00.08		Painting for Minor Works
DIVISION 25	-	PROCESS DEVICES
25 30 02		Valve Actuators
DIVISION 26	-	ELECTRICAL
26 05 00		Common Work Results for Electrical
26 05 05		Selective Demolition for Electrical
26 05 20		Wire and Box Connectors (0-1000 V)
26 05 21		Wires and Cables (0-1000 V)
26 05 28		Grounding – Secondary
26 05 29		Hangars and Supports for Electrical Systems
26 05 31		Splitters, Junctions, 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 05 43.01		Installation of Cables in Trenches and in Ducts
26 09 23.01		Metering and Switchboard Instruments
26 12 17		Dry Type Transformers up to 600 V Primary
22 22 19		Control and Signal Transformers
26 24 17		Panelboards Breaker Types
26 24 19		Motor Control Centres
26 27 26		Wiring Devices
26 28 21		Moulded Case Circuit Breakers
26 29 03		Control Devices
26 29 10		Motor Starters to 600 V
26 50 00		Lighting
26 52 01		Unit Equipment for Emergency Lighting
DIVISION 29	-	INTRUMENTATION AND CONTROLS
29 05 00		Common Work – Instrumentation and Control
29 10 01		Enclosures
29 15 01		Instrumentation Cable
29 30 11		Miscellaneous Panel Devices
29 30 21		Power Supplies
29 40 21		Instrumentation Index
29 40 51		Programmable Logic Controllers

Drawing No.
1-0630A-D0004-001
Electrical
1-0630R-E0001-001

Drawing Name/Title
Cover Sheet
Electrical Single Line Diagram

1-0630R-E0002-001	Electrical Demolition Plans and Legend
1-0630R-E0003-001	Electrical Plans, Luminaire, and Panel Schedules
1-0630R-E0004-001	MCC-R740 Elevation and Details
1-0630R-E0005-001	P010 Reservoir Drain Pump 1, Motor Wiring Schematic
1-0630R-E0006-001	P020 Reservoir Drain Pump 2, Motor Wiring Schematic
1-0630A-E0018-001	Electrical Site Plan

Automation

1-0630P-A0079-001	Network Architecture Diagram
1-0630P-A0082-001	LCP-R800, Panel Layout & Bill of Materials
1-0630P-A0083-001	LCP-R800, Terminal Strip Layouts and Panel Network Diagram
1-0630P-A0084-001	LCP-R800, Wiring Schematic, Power Distribution
1-0630P-A0085-001	LCP-R800, Wiring Schematic, Digital Inputs
1-0630P-A0086-001	LCP-R800, Wiring Schematic, Digital Outputs
1-0630P-A0087-001	LCP-R800, Wiring Schematic, Analog Inputs
1-0630P-A0088-001	LCP-R800, Wiring Schematic, Analog Outputs
1-0630P-A0089-001	Loop Diagram, Motorized Valve, XV-R1120 (LRV-1)
1-0630P-A0090-001	Loop Diagram, Motorized Valve, XV-R1110 (LRV-2)
1-0630P-A0091-001	Loop Diagram, Motorized Valve, XV-Y1010 (LAV-1)
1-0630P-A0092-001	Loop Diagram, Motorized Valve, XV-Y1020 (LAV-2)
1-0630P-A0093-001	Loop Diagram, Motorized Valve, XV-R1219 (LSV-1)
1-0630P-A0094-001	Loop Diagram, Motorized Valve, XV-R1319 (LSV-2)
1-0630P-A0095-001	Loop Diagram, Motorized Valve, XV-R1330 (LSV-3)
1-0630P-A0096-001	Loop Diagram, Valve House Common Flood Alarm, LSH-R5950
1-0630P-A0097-001	Loop Diagram, Reservoir Spill Switches, LSH-R1212, LSH-R1312
1-0630P-A0098-001	Loop Diagram, Sump Pit Flood Alarm, LSH-5960
1-0630P-A0099-001	Loop Diagram, General Valve Pit Flood Alarm, LSH-5900
1-0630P-A0100-001	Loop Diagram, N. Reservoir Level Transmitter, LT-R1211
1-0630P-A0101-001	Loop Diagram, S. Reservoir Level Transmitter, LT-R1311
1-0630P-A0102-001	Loop Diagram, N. Reservoir Flow Transmitter, FT-R1121
1-0630P-A0103-001	Loop Diagram, N. Reservoir Flow Transmitter, FT-R1111

Process

1-0630R-P0001-001	Process & Instrumentation Diagram – Reservoir Fill Valves
1-0630R-P0002-001	Process & Instrumentation Diagram – Reservoir Cells

GENERAL REQUIREMENTS

E2. HAZARDOUS MATERIALS

- E2.1 If suspected 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.
- E2.1.1 Notwithstanding E2.1, any asbestos identified in the HMIS asbestos reports provided in Appendix D – Asbestos Reports shall be the responsibility of the Contractor in accordance with Section 02 82 00.01 – Asbestos Abatement – Minimum Precautions and Section 02 82 00.02 – Asbestos Abatement – Intermediate Precautions in the NMS.
- (a) HMIS asbestos reports for the RPS containing confirmed and presumed asbestos are provided as Appendix D – Asbestos Reports which indicate there is no confirmed or presumed asbestos present in the Valve House. If discovered take appropriate actions as indicated in E2.1.
 - (b) For reference, the City updates the HMIS asbestos reports on an annual basis and will provide updated reports throughout the duration of the project.
- E2.2 Further to E2.1, if additional asbestos has been discovered beyond what has been identified in the HMIS asbestos reports included in Appendix D – Asbestos Reports, the City may require the Contractor to undertake any asbestos abatement to facilitate the Work.

- E2.2.1 This additional asbestos abatement work will be paid via cash allowance as indicated on Form B. Cost of additional work shall be evaluated by the methods outlined in C7.4, and a change order prepared by the Contract Administrator. Cost of the change order will be paid on the progress estimate and deducted from the cash allowance. If the valuation of the authorized work exceeds the value of the cash allowance, the Contract Price will be adjusted by the shortfall.
- E2.2.2 For clarity, if future HMIS asbestos reports provided by the City identify additional asbestos that impacts the Work, the additional asbestos abatement work will be addressed in accordance with E2.2.1.

E3. OPERATIONAL PROCESS SYSTEMS HAZARDS

- E3.1 The City utilizes chlorine gas on Site as part of the water pumping process at the MacLean RPS. A chlorine gas detector is installed with alarming to notify personnel of any potential toxic chlorine gas levels. The Contractor is expected to follow City policies regarding chloring gas safety.

E4. ELECTRICAL SYSTEMS HAZARDS AND CONDITIONS

- E4.1 Arc Flash Hazards
- (a) 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 (as well as new arc flash levels).
- E4.2 Building Rating for Electrical Installations
- (a) The ambient air with the Valve House periodically contains chemical compounds of chlorine. All electrical installations in the Valve House shall be suitable for Category 2 – Corrosive Environments per the City of Winnipeg, Water & Waste Department Electrical Design Guide.
- E4.2.1 The City will be upgrading the ventilation and architectural components under a separate scope of work to minimize these conditions.

E5. MOBILIZATION AND DEMOBILIZATION

- E5.1 The Contractor shall mobilize all on Site Work and other temporary facilities required for completion of the Work. Upon completion of construction activities, the Contractor shall remove all on Site Work and other temporary facilities and restore the Site to equal or better than original condition.
- E5.1.1 Further to E5.1 the Contractor temporary facility requirements shall include:
- (a) construction parking which shall be along the access road to the valve house. The parking shall not impede or disrupt Work by others or access by the City;
- (b) a secure weatherproof facility for storage of tools, equipment, and materials;
- (c) a conditioned office with 120 Vac power, internet service, heating, lights, and ventilation of sufficient size to accommodate the Contractor's requirements and furnished with a Drawing laydown table, fully stocked first aid case, and filing space for project documents;
- (d) a workspace on Site for use by the Contract Administrator. The Contract Administrator will only require a workspace periodically throughout construction; however, the workspace shall be made available for the Contract Administrator at any time when construction activities are occurring on-Site. The workspace shall include sufficient table or desk space for a full-size Drawing, a chair, and access to an electrical outlet and internet connection;
- (e) stabilization of temporary structures in a sufficient manner to prevent the temporary structure from being overturned by wind forces as defined in the National Building

Code (NBC). The stabilization provided shall be designed by a Professional Engineer registered in the Province of Manitoba. Detailed Drawings and design notes for the stabilization works bearing the Engineer's seal shall be provided to the Contract Administrator for review; and

(f) the installation, maintenance, removal, and service of the temporary facilities.

E5.1.2 The Contractor shall inspect the Site with the Contract Administrator to verify and document existing conditions prior to mobilization to Site. The Contractor and the Contract Administrator shall review the Site condition during the Substantial Performance inspection comparing the original to final Site conditions. The Contractor shall correct noted deficiencies prior to Total Performance of the final Site condition to bring the area back to original or better condition.

E5.1.3 Utility connections will not be permitted within facility compound areas unless approved otherwise in writing by the Contract Administrator.

E5.2 Submittals

E5.2.1 Provide Submittals in accordance with Section 01 33 00 – Submittal Procedures in the NMS.

E5.2.2 Site Laydown Plan

(a) The Contractor shall submit to the Contract Administrator for review and approval ten (10) Business Days prior to mobilization at the Site, a Site Laydown Plan that includes, but is not limited to:

- (i) laydown area location(s), dimensions and surfacing materials if required;
- (ii) office, equipment and material storage facility sizes and locations;
- (iii) utility connection location(s), if required, with installation and removal details;
- (iv) temporary secure fencing limit and gate locations, if required;
- (v) location and number of parking accommodations; and
- (vi) temporary traffic control measures, if required.

E5.3 Site Laydown Areas

E5.3.1 Permitted Site laydown areas have been identified by the City and provided in Appendix E – Laydown Areas. For clarity, existing City Drawings from other projects have been used as the basis for these laydown Drawings and the Contractor shall refer solely to the text in red.

E5.3.2 The permitted Site laydown area is not located within an existing facility compound fence.

E5.3.3 The Contractor shall at all times maintain access to any and all areas required for City operations unless approved otherwise in writing by the Contract Administrator.

E5.3.4 The Contractor shall at all times keep the laydown area clean, neat, and orderly. Materials and equipment shall be properly stored and organized and all garbage and debris shall be promptly and properly collected and disposed of off-site.

E5.3.5 If applicable, the Contractor shall clear snow cover from the proposed laydown area and remove it from the Site prior to commencement of the Work. During construction activities, the Contractor shall clear snow from the laydown area and remove it from the Site on a regular basis, if required. The methodology for clearing and removing snow cover shall be subject to the approval of the Contract Administrator.

E5.3.6 Subject to E5.3.1, the Contractor has discretion on what areas of the Site they wish to secure and the methods of implementing security. These areas may be fenced and gated for security, to discourage pedestrian entrance, and to control potential hazards to the public, particularly children. The Contractor shall not fence off areas where public traffic or pedestrians need to travel, such as open roadway lanes or sidewalk/bike paths.

E5.3.7 The City may permit the use of existing facility parking accommodations. Request for use of existing facility parking accommodations shall be indicated on the Site Laydown Plan Submittal including location of each parking spot requested which will be reviewed by the Contract Administrator on a case-by-case basis.

E5.4 Measurement and Payment

E5.4.1 Mobilization and demobilization will be measured on a lump sum basis and paid for at the Contract Lump Sum Price for "Site Mobilization/Demobilization". Payment for Mobilization and demobilization shall include all costs associated with mobilization and demobilization, Site set up, and cleanup, herein as described.

E5.4.2 Payment will be made on the following schedule:

- (a) twenty percent (20%) payment of the Mobilization and Demobilization lump sum price will be eligible for payment once the Contractor has met all the Commencement requirements specified in D17;
- (b) forty percent (40%) payment of the Mobilization and Demobilization lump sum price will be eligible for payment once the Contractor has mobilized and initiated Work on Site; and
- (c) forty percent (40%) of the Mobilization and Demobilization lump sum price will be eligible for payment when the Contract Administrator provides the Certificate of Substantial Performance; the Contract has demobilized equipment, material, facilities, tools, and personnel from Site; and the Contractor has restored and cleaned up the Site.

E6. ACCESS AND SECURITY

E6.1 Access to Facilities

E6.1.1 The Contractor will be issued keys for access to Site.

- (a) The Contractor shall coordinate with the City on the number of keys that will be required for the Contractor's employees and Subcontractors.
- (b) The first progress payment will be deducted ten thousand dollars (\$10,000.00) as a deposit for all keys. The Contract Administrator will provide notification to the Contractor of which line item has been reduced to accommodate this deduction.
- (c) The Contractor shall return all keys prior to Total Performance. On return of all keys, including damaged keys, the ten thousand-dollar (\$10,000.00) deposit will be released on the next progress payment.
- (d) The Contractor shall immediately report any lost keys and return any damaged or non-functioning keys for replacement.

E6.1.2 All entry doors into the facilities shall remain locked at all times.

E6.1.3 The Contractor shall follow the City's access procedures regarding entrance and exit to all facilities on the Site.

- (a) The Contractor and Subcontractors shall sign in to log books when accessing facilities and notify WTP control room operator when arriving and leaving Site. Specific contact details will be provided by the City.
- (b) When arriving at the Site deactivate the alarm system and reactivate the alarm system prior to leaving Site at any time unless other authorized individuals are present.
- (c) After award of the Contract the alarm activation procedures will be reviewed further by the City.

E6.2 Washroom Access

E6.2.1 The Contractor will be permitted to use the City's washrooms within the on-Site facilities, provided the Contractor and Subcontractors maintain equal or better cleanliness. Washroom access may be revoked for instances of cleanliness issues.

E7. RESTRICTIONS

E7.1 General

E7.1.1 The MacLean RPS, MacLean Valve House, and MacLean Reservoir are critical pieces of the City's RDS and the Contractor is subject to a number of key restrictions to protect the safety and integrity of the RDS. Under no condition shall the services be shut down without prior permission of the Contract Administrator.

E7.1.2 The MacLean RPS, MacLean Valve House, and MacLean Reservoir will be allowed to be taken out of service after the following documents are approved in writing by the Contract Administrator:

- (a) Schedule of activities; and
- (b) Shutdown and Backout Plan.

E7.1.3 It is recognized that some select Work tasks will have reduced or no impact to City operations or Trades and Operation Staff. For the purposes of the restrictions and critical stages only, the following are considered to be excluded:

- (a) mobilization and demobilization; and
- (b) installation of lights, cable trays, new conduit, pulling of wiring in conduits (if the associated existing feeds are in operation).

E7.2 Facility Operation During Construction

E7.2.1 Shutdown and Backout Plan

- (a) Submit a Shutdown and Backout Plan document for review and approval by the Contract Administrator prior to any planned disruptions power or water flow at the Site.
 - (i) the Shutdown and Backout Plan indicated in E7.2.1(a) shall be submitted a minimum of fourteen (14) Business Days prior to the proposed shutdown. Under no condition shall the systems be shutdown without prior written permission of the Contract Administrator.
- (b) The Contract Administrator and the City shall have three (3) Business Days to review the Shutdown and Backout Plan.
- (c) Revisions to the Shutdown and Backout Plan by the Contract Administrator or the City shall not be means for a Contract change.
- (d) Resubmissions of the Shutdown and Backout Plan may require rescheduling of the proposed shutdown to accommodate a further minimum of fourteen (14) Business Days for submission, approval and to allow for City resource and operation coordination.
- (e) The Contractor is to chair a shutdown meeting with stakeholders from the City and the Contract Administrator to walk through the Shutdown and Backout Plan a minimum of two (2) but no more than five (5) Calendar Days (not including weekends or stat holidays) prior to the activity. The intent of the meeting is to review roles and responsibilities, contact information, and the overall sequences of the Work.

E7.2.2 The Contractor shall plan their construction activities to allow for the minimum amount of disruption time to normal operating status of the stations.

E7.2.3 The Contractor shall cooperate with and provide full access at all times for City personnel to carry out maintenance and operational duties.

E7.2.4 No additional payments will be made for providing access to City forces on the Site or any potential effect City crews might have on the Contractor's work.

- E7.2.5 All operation and control relating to the water distribution system will be completed by the City.
- E7.2.6 Duration
- (a) MacLean Reservoirs and Valve House
 - (i) Temporary shutdowns of the controlled flow of water into the reservoirs through the inlet valves (LRV-1 and LRV-2) shall be limited to twenty-four (24) hours per Reservoir Cell.
 - (ii) Temporary shutdowns of individual reservoir cells associated with the MacLean Valve House is permitted for a twenty-four (24) hour period duration per outage or less where otherwise indicated.
 - (iii) Under no circumstance will both reservoir cells be permitted to be isolated or shutdown simultaneously.
 - (b) MacLean Regional Pumping Station
 - (i) Temporary shutdowns for this facility (including but not limited to the pumping systems and chlorine systems) is only permitted between the hours of 11:30 p.m. and 5:00 a.m. (maximum 5.5 hours in duration per outage or less where otherwise indicated for select systems). Under no circumstance will the pumping station be permitted to shut down during the day.
- E7.2.7 Schedule several work activities to be completed in the same shutdown where possible to minimize the number of station shutdowns required.
- E7.2.8 There will be no charge to temporarily shut down the MacLean Reservoirs for planned work activities.
- E7.2.9 If an unreasonable number of shutdowns are required to complete the same work activity due to the Contractor's method of operation, a deduction of five hundred dollars (\$500.00) per hour may be made to the Contractor's future Progress Payments.
- E7.2.10 In the event that the Contractor causes an unplanned partial or complete shutdown, and, in the opinion of the Contract Administrator, is deemed to be at fault, the Contractor may be deducted five thousand dollars (\$5,000.00) per incident to cover the City's costs associated with the shutdown. This does not waive or eliminate any associated insurance or other requirements.
- E7.2.11 In the event that the Contractor causes an unplanned partial or complete shutdown, the Contractor is responsible for providing all required services to remediate the issues on an emergency basis. No payment will be made to the Contractor for repair of any item related to the Contractor's Work.
- E7.2.12 The Contract Administrator reserves the right to cancel a planned station shutdown if in their opinion any conditions would not allow for a shutdown of sufficient duration to complete the work activity. The Contractor shall reschedule the work activity to a more suitable time.
- E7.2.13 The Contract Administrator reserves the right to cancel a planned station shutdown during inclement weather, or due to operational issues, including issues within other City facilities.
- E7.2.14 The Contractor is responsible for all temporary power for construction, day to day facility operational, lighting, fire alarm systems operation, heating, and ventilation during construction during power shutdowns.
- (a) Further to E7.2.14 in the event the large dewatering pumps are required to operate the City may require to Contractor to re-establish normal power or provide additional temporary power capable of maintaining the operation of the pumps.

E8. REFERENCE SUMMARY INFORMATION

- E8.1 The following documents have been prepared to provide a summary of the major equipment and Submittals, respectively, noted throughout the Contract Documents:

- (a) Appendix A – Major Equipment List;
- (b) Appendix B – Submittal List;
- (c) Appendix C – Electrical Inspection Forms;
- (d) Appendix D – Asbestos Reports;
- (e) Appendix E – Laydown Areas;
- (f) Appendix F – Control Narrative;
- (g) Appendix G – Historical Documents; and
- (h) Appendix H – Sample Non-Disclosure Agreement.

E8.2 These appendices have been provided for informational purposes only for the convenience of the Bidder and/or Contractor. The Contractor shall be responsible to conform to the requirements of the Contract Documents. In the case of a discrepancy between these appendices and the Contract Documents, the Contract Documents shall govern.

E9. EXPEDITED SHOP DRAWINGS

E9.1 In order to expedite Shop Drawings with critical timeliness, the lowest responsive Bidder, as outlined in B18, will be permitted, after receiving written approval from the Contract Administrator, to arrange for the preparation of Shop Drawings for the following items with critical timelines:

- (a) all items specified in Section 26 12 17 – Dry Type Transformers Up to 600 V Primary;
- (b) all items specified in Section 26 24 19 – Motor Control Centres; and
- (c) all items specified in Division 29 – Instrumentation and Controls.

E9.2 If Award is made to the lowest responsive Bidder, then no specific payment for the preparation of Shop Drawings will be made.

E9.3 If no Contract is awarded, then the City of Winnipeg will pay the requested Bidder up to a maximum of five thousand dollars (\$5,000.00) for the complete set of requested submissions noted above, for the preparation and delivery of Shop Drawings. Shop Drawings shall be prepared to a reasonable level of acceptance, subject to the Contract Administrator's approval. Delivery of the Shop Drawings to the City and payment of the above amounts will constitute full and final consideration of each party to the other, and neither party will have any further liability to the other with respect to this Tender.

E10. DANGEROUS WORK CONDITIONS

E10.1 Further to clause E3, the Contractor shall be aware that the following locations are considered confined spaces:

- (a) MacLean Valve House Reservoir dewatering pit;
- (b) MacLean Reservoir immediately adjacent to the MacLean Valve House;
- (c) the access pits for MacLean Reservoir Valves; and
- (d) any other areas labelled as "confined space" at Site.

E10.1.1 The Contractor shall follow the more stringent of "Guidelines for Confined Entry Work" as published by the Manitoba Workplace Safety and Health Division, City of Winnipeg Water and Waste SWP – Confined Space Entry, or the Contractor's SWP for all work involving a confined space.

E10.1.2 The Contractor shall be aware of the potential hazards that can be encountered in confined spaces such as toxic gases and oxygen deficiency. The Contractor's Safe Work Plan should address these issues.

- E10.1.3 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 and toxic gases. Testing equipment must be calibrated in accordance with manufacturer's Specifications.
- E10.1.4 The Contractor is responsible for all testing requirements.
- E10.1.5 The Contractor shall ventilate all confined spaces including underground chambers, tunnels, 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.
- E10.1.6 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.
- E10.2 The MacLean Valve House is located immediately adjacent to the MacLean Reservoir which is a large body of water within a closed facility and represents a drowning hazard and/or exposure to hypothermic conditions.

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 their opinion, proper care and maintenance are not provided.

E12. ENVIRONMENTAL PROTECTION

- E12.1 The Contractor shall be aware that the MacLean RPS is for potable water supply and no contamination by fuel, chemicals, or other hazardous and non-potable materials shall be permitted at any time. Fuels or chemicals shall not be stored within thirty (30) metres (m) of the MacLean RPS Reservoirs.
- E12.2 The Contractor shall plan and implement the Work of this Contract strictly in accordance with the requirements of the environmental protection measures as herein specified.
- E12.3 The Contractor is advised that at least the following Acts, Regulations, and By-laws apply to the Work:
- (a) Canadian Environmental Protection Act (CEPA) c.16;
 - (b) Transportation of Dangerous Goods Act and Regulations c.34;
 - (c) the Dangerous Goods Handling and Transportation Act D12;
 - (d) the Endangered Species Act E111;
 - (e) the Environment Act c.E125;
 - (f) the Fire Prevention Act F80;
 - (g) the Manitoba Nuisance Act N120;
 - (h) the Public Health Act c.P210;
 - (i) the Workplace Safety and Health Act W120; and
 - (j) and current applicable associated regulations.
- E12.4 The Contractor is advised that the following environmental protection measures apply to the Work.
- E12.4.1 Materials Handling and Storage

- (a) Construction materials shall not be stored within five (5) m of the Aqueduct Interconnect and RPS header pipe centerlines.

E12.4.2 Fuel Handling and Storage

- (a) The Contractor shall abide by the requirements of Manitoba Environment for handling and storage of fuel products.
- (b) All fuel handling and storage facilities shall comply with The Dangerous Goods and Transportation Act Storage and Handling of Petroleum Products Regulation and any local land use permits.
- (c) Fuels, lubricants, and other potentially hazardous materials as defined in The Dangerous Goods and Transportation Act shall be stored and handled within the approved storage areas.
- (d) The Contractor shall ensure that all fuel storage containers are inspected daily for leaks and spillage.
- (e) Products transferred from the fuel storage area(s) to specific Work Sites shall not exceed the daily usage requirement.
- (f) When servicing requires the drainage or pumping of fuels, lubricating oils or other fluids from equipment, a groundsheet of suitable material (such as HDPE) and size shall be spread on the ground to catch the fluid in the event of a leak or spill.
- (g) Refueling of mobile equipment and vehicles shall take place at least one hundred (100) m from a watercourse.
- (h) A sufficient supply of materials, such as absorbent material and plastic oil booms, to clean up minor spills shall be stored nearby on-Site. The Contractor shall ensure that additional material can be made available on short notice.

E12.4.3 Waste Handling and Disposal

- (a) The construction area shall be kept clean and orderly at all times during and at completion of construction.
- (b) At no time during construction shall personal or construction waste be permitted to accumulate for more than one (1) day at any location on the construction Site, other than at a dedicated storage area as may be approved by the Contract Administrator.
- (c) Indiscriminate dumping, littering, or abandonment shall not take place.
- (d) No on-Site burning of waste is permitted.

E12.4.4 Dangerous Goods/Hazardous Waste Handling and Disposal

- (a) Dangerous goods/hazardous waste are identified by, and shall be handled according to, The Dangerous Goods Handling and Transportation Act and Regulations.
- (b) The Contractor shall be familiar with The Dangerous Goods Handling and Transportation Act and Regulations.

E12.4.5 Emergency Spill Response

- (a) The Contractor shall ensure that due care and caution is taken to prevent spills.
- (b) The Contractor shall report all major spills of petroleum products or other hazardous substances with the potential for impacting the environment and threat to human health and safety to the Contract Administrator **(431) 294-1793**, the City Water Treatment Plant Control Room **(204) 986-5000** and Manitoba Environment, immediately after occurrence of the environmental accident, by calling the twenty-four (24) hour emergency telephone phone number **(204) 945-4888**.
- (c) The Contractor shall designate a qualified supervisor as the on-Site emergency response coordinator for the project. The emergency response coordinator shall have the authority to redirect manpower in order to respond in the event of a spill.

- (d) The following actions shall be taken by the person in charge of the spilled material or the first person(s) arriving at the scene of a hazardous material accident or the on-Site emergency response coordinator:
- (i) Notify emergency-response coordinator of the accident:
 - ◆ identify exact location and time of accident;
 - ◆ indicate injuries, if any; and
 - ◆ request assistance as required by magnitude of accident (Manitoba Environment twenty-four (24) hour Spill Response Line **(204) 945-4888**, Police, Fire Department, Ambulance, company backup);
 - (ii) Assess situation and gather information on the status of the situation, noting:
 - ◆ personnel on Site;
 - ◆ cause and effect of spill;
 - ◆ estimated extent of damage;
 - ◆ amount and type of material involved; and
 - ◆ proximity to waterways and the Aqueduct;
 - (iii) If safe to do so, try to stop the dispersion or flow of spill material:
 - ◆ approach from upwind;
 - ◆ stop or reduce leak if safe to do so;
 - ◆ dyke spill material with dry, inert sorbent material or dry clay soil or sand;
 - ◆ prevent spill material from entering waterways and utilities by dyking; and
 - ◆ prevent spill material from entering Aqueduct manholes and other openings by covering with rubber spill mats or dyking;
 - (iv) Resume any effective action to contain, clean up, or stop the flow of the spilled product;
- (e) The emergency response coordinator shall ensure that all environmental accidents involving contaminants shall be documented and reported to the Manitoba Environment according to The Dangerous Goods Handling and Transportation Act Environmental Accident Report Regulation 439/87.

E12.4.6 Control Products

- (a) Materials classified as “Controlled Products” under Regulation 52/88, “Workplace Hazardous Materials Information System”, including amendments, are prohibited inside the reservoirs, and pipe systems unless the material will be directly employed in the Work.
- (b) Notwithstanding the aforementioned requirement, materials have been tested by an ANSI accredited laboratory and meet the requirements of ANSI/NSF 60, “Standard for Drinking Water Treatment and Chemicals – Health Effects”, and ANSI/NSF 61, “Standard for Drinking Water System Components – Health Effects”, as specified in the Specifications, shall be permitted inside the Aqueduct.

E13. CONSTRUCTION WORK PLAN

- E13.1 Submit a Detailed Work Plan document for review and approval by the Contract Administrator on each Thursday, indicating the following:
- (a) upcoming and outstanding submittals;
 - (b) updated Work schedule adhering to the requirements of the detailed Work schedule;
 - (c) upcoming City forces involvement required with the next four (4) weeks;
 - (d) upcoming coordination related to work by others within the next four (4) weeks (refer to D18);
 - (e) planned testing, shutdowns, and/or commissioning within the next four (4) weeks;

- (f) planned training within the next four (4) weeks (refer to E15.5);
- (g) upon request, detailed description of all upcoming work activities planned for the upcoming weeks, including, but not limited to:
 - (i) mobilization, demobilization, and security;
 - (ii) the proposed construction sequence to be followed including all methods to be employed to ensure that no damage or unintended pump shutdowns occur;
 - (iii) a description of all proposed methods of construction to be implemented; and
 - (iv) specialized equipment that may be used;
- (h) any design revisions proposed to accommodate the Contractor's proposed method of construction;
- (i) upcoming demolition, cutting, or alterations (refer to Section 01 73 00 – Execution and Section 26 05 05 – Selective Demolition for Electrical in the NMS); and
- (j) upcoming and completed asbestos work, removal/disposal plan, and waste disposal confirmation (refer to E2, Section 02 82 00.01 – Asbestos Abatement – Minimum Precautions and Section 02 82 00.02 – Asbestos Abatement – Intermediate Precautions in the NMS).

E13.2 All shutdowns require detailed planning and approval by the City. The Contractor must submit information required to support the creation of a detailed Shutdown and Backout Plan as indicated in E7.2.1. The Contract Administrator will assist with the creation of these documents and coordinating with the City.

E13.3 The Contractor must keep life safety systems, such as fire alarm systems, emergency lighting, gas detection systems operational at all times except for planned and approved outages. Include costs and provide a twenty-four (24) hours per day/seven (7) days per week watch person where systems are made inoperable during the approved outage periods.

E13.4 No Work shall proceed without the inclusion of the work on a Detailed Work Plan and corresponding approval of the Work by the Contract Administrator

E14. COMMISSIONING

E14.1 Reference Sections

- (a) 01 43 33 – Contractor's Field Requirements
- (b) Division 25
- (c) Division 26
- (d) Division 29
- (e) Appendix C – Electrical Inspection Forms

E14.2 General

E14.2.1 Provide start-up and commissioning for the completed Works to demonstrate compliance with the Contract Documents.

E14.2.2 Where life safety systems will be affected by the commissioning activities (e.g., emergency lighting, fire alarm, etc.), provide a twenty-four (24) hours per day/seven (7) days per week watch person and/or monitoring equipment where systems are made inoperable during the approved outage periods.

E14.2.3 The City reserves the right to refuse a requested shutdown based on the availability of City resources or system status. Extension of critical stages as a result of shutdown requests being denied shall be assessed on a case-by-case basis.

E14.2.4 The Contractor shall undertake commissioning works utilizing the individuals qualified as set out in B13.3.

E14.3 Submittals

- E14.3.1 Provide Submittals in accordance with Section 01 33 00 – Submittal Procedures in the NMS.
- E14.3.2 Submit a Commissioning Plan in accordance with E14.4 to the Contract Administrator for review and approval a minimum of thirty (30) Calendar Days prior to the scheduled initial date of facility start-up and commissioning. Commissioning cannot start until approval of the Commissioning Plan by the Contract Administrator. Modifications to the Commissioning Plan, as directed by the Contract Administrator, shall not extend the critical stages.
- E14.3.3 Submit start-up checklists in accordance with E14.6 to the Contract Administrator for review and approval a minimum of thirty (30) Calendar Days prior to the scheduled initial date of start-up and commissioning, refer to Appendix C and 01 43 33 – Contractor's Field Requirements for associated forms.
- E14.3.4 Submit completed start-up checklists in accordance with E14.6 a minimum of five (5) Calendar Days prior to commissioning the particular component of the Work, refer to Appendix C and 01 43 33 – Contractor's Field Requirements for associated forms.
- E14.3.5 Submit the commissioning records in accordance with E14.7.7 as part of the Operation and Maintenance Manuals.

E14.4 Commissioning Plan

- E14.4.1 The Commissioning Plan shall encompass the sequence of activities and requirements for commissioning all equipment, components, systems, and sub-systems and shall include:
- (a) a general description of the systematic testing and start-up procedures for each component including complete system tests that will be performed to demonstrate that the Work performs as designed; the general approach to commissioning the Works, including the organization of the commissioning team and their responsibilities;
 - (b) a description of the complete system tests that will be performed to demonstrate that the Work performs at the performance levels specified in the Specifications;
 - (c) a description of required City forces (Trades and Operations Staff) and tasks to be performed by City forces in accordance with E14.8;
 - (d) a description of the impact of the commissioning activities on the operation of the facility;
 - (e) a description of the methodology for maintaining, as much as possible, system redundancy in place during the Work when any new equipment is to be put into service;
 - (f) processes and procedures to be followed for the transition from construction power provided by a generator to normal power for the new distribution system;
 - (g) processes and procedures to be followed for the testing, diagnosis, and correction of problems, including repeat testing where required;
 - (h) start-up check lists;
 - (i) commissioning forms for documentation of system parameters, process setpoints, and revisions required to the Specification;
 - (j) where applicable, a description of the methodology for verifying all automated controls, including all operator adjustable settings and set points;
 - (k) where applicable, a description of the methodology for verifying all alarms;
 - (l) contingency plans in the event of equipment failures, instrument failures, and process malfunctions;
 - (m) all test parameters to be monitored and measured during start-up and commissioning;
 - (n) a list of test equipment to be used for each test, including the accuracy and precision of the instruments at the ranges to be used and date of last calibration;

- (o) response procedures for unsatisfactory test results including the definition of test result limits that constitute a failure, during commissioning, and start-up testing;
- (p) an I/O loop check list form to be completed during commissioning to the PLC and from the PLC to SCADA, the City to assist with confirmation of signals from the source back to SCADA;
- (q) a detailed schedule of the expected shutdown times and durations for each system; and
- (r) a description of the planned start-up and commissioning dates for each component and system to be commissioned.

E14.5 Commissioning Team

- E14.5.1 The Contractor shall identify the Commissioning Team members in the Commissioning Plan.
- E14.5.2 The City will provide one (1) certified operator, one (1) electrician, and one (1) instrumentation technician dedicated for commissioning activities. One (1) system analyst will be available as required.
- E14.5.3 The certified operator and maintenance personnel will be available to the Contractor from Monday to Friday at 7:30 a.m. to 4:00 p.m., with one (1) hour for lunch. Where off-hour work is required, provide a minimum of seven (7) Calendar Days notice to the Contract Administrator.

E14.6 Start-up Checks

- E14.6.1 The Contractor shall complete the start-up checks of all Work components to be verified prior to equipment operation as described in the appropriate Specification section for the equipment, Specification section 01 43 33 – Contractor's Field Requirements and Appendix C – Electrical Inspection Forms.
- E14.6.2 Operation of any new or existing equipment shall not be performed prior to the successful completion of the start-up checks.
- E14.6.3 The components requiring start-up checks are as described below:
 - (a) confirmation of the motor rotation and operation of the existing dewatering pumps, and Heating, Ventilation, and Air Conditioning equipment;
 - (b) new valve actuators and the associated valve as per Specification 25 30 02 – Valve Actuators;
 - (c) MCC and associated components as per Specification 26 24 19; and
 - (d) PLC Ethernet network start-up checks shall at a minimum, include:
 - (i) verification of all Category 6 cabling as per Specification 29 15 01 – Instrumentation Cables;
 - (ii) verification of all multimode fibre optic cable as per Specification 29 15 01 – Instrumentation Cables;
 - (iii) confirmation of correct programming of all network switches;
 - (iv) verification of correct failover; and
 - (v) measurement of network traffic, packet loss, and retries.
- E14.6.4 The draft start-up check lists for all components shall be completed by the Contractor as a part of the Commissioning Plan and submitted to the Contract Administrator for review and acceptance a minimum of thirty (30) Calendar Days prior to start-up at the facility.
- E14.6.5 The completed start-up check lists shall be provided a minimum of five (5) Calendar Days prior to commissioning the particular component of the Work.

E14.7 Testing and Commissioning Activities

- E14.7.1 All start-up, commissioning, and testing shall be performed in accordance with the approved Commissioning Plan, the appropriate Specification section for the equipment, Specification section 01 43 33 – Contractor’s Field Requirements and Appendix C.
- E14.7.2 Commissioning shall include:
- (a) pre-commissioning, which includes all start-up checks prior to component commissioning where the components are energized;
 - (b) component commissioning, where the process fluid (electrical, water, etc.) flows through the component;
 - (c) system commissioning, where the system is tested as a whole, complete with alarms; and
 - (d) performance testing.
- E14.7.3 Coordinate operation of City equipment including breakers, motors, pumps, and valves with the City Trades and Operations Staff.
- E14.7.4 The Contract Administrator and the City, at its discretion, may have personnel witness any testing and commissioning activities.
- (a) Coordinate with the Contract Administrator regarding commissioning activities that the Contract Administrator and the City has expressed interest in witnessing to ensure that they are provided with every reasonable opportunity to observe the commissioning activity.
 - (b) The Contract Administrator and the City’s witness of commissioning activities shall not replace or supplant any training requirements.
- E14.7.5 Commissioning activities shall not occur at the same time as the field training.
- E14.7.6 Provide complete and comprehensive records (the “commissioning records”), of the complete commissioning process. The commissioning records shall be a set of documents which record and demonstrate the results of the commissioning process and that the acceptance criteria have been met and shall include test result documentation, start-up checklists, commissioning forms, letters of conformity, and certificates.
- E14.7.7 The commissioning records shall be included in the Operation and Maintenance Manuals.
- E14.7.8 If a test fails during commissioning and corrective action is taken, all tests associated with the system/process shall be repeated to ensure the corrective action has not had an adverse impact on the system/process.
- E14.8 Responsibility for Commissioning
- (a) The Contractor’s responsibilities for commissioning includes:
 - (i) preparing and completing the Commissioning Plan, start-up check lists, and commissioning forms for the upgrade;
 - (ii) scheduling activities according to the Commissioning Plan and subject to the availabilities of the City’s Trades and Operations Staff;
 - (iii) conducting commissioning; and
 - (iv) adherence to the Commissioning Plan and restrictions;
 - (b) The City’s responsibilities for commissioning includes:
 - (i) supply of Trades and Operations Staff;
 - (ii) maintenance of City equipment in a condition that the equipment is operational without defect prior to the start of and during commissioning activities; and
 - (iii) manual operation of City equipment (e.g., pumps, valves, etc.) during facility shutdowns.
- E14.9 Measure and Payment

- (a) Commissioning will not be measured and will be paid for at the Contract lump sum prices by facility for "Installation, Start-up, and Commissioning" for supplying all materials and for performing all operations herein described and all other items incidental to the Work included in this Specification and accepted by the Contract Administrator.

E15. TRAINING

E15.1 General

E15.1.1 The Contractor shall provide training to City personnel for the completed Work for:

- (a) the seven (7) new actuators;
- (b) the electrical upgrades;
- (c) PLC programming; and
- (d) HMI screen.

E15.2 Submittals

- (a) Provide submittals in accordance with 01 33 00 – Submittal Procedures in the NMS.
- (b) Submit the draft training plan for the group identified in E15.5 to the Contract Administrator for review at least fourteen (14) Calendar Days prior to the delivery of training.
 - (i) incorporating all of the comments from the Contract Administrator and the City prior to the delivery of training.

E15.3 The water treatment operators shall be trained on the new valve actuators and the HMI screen during commissioning. As a minimum, the following topics shall be covered:

- (a) safety;
- (b) actuator operation; and
- (c) an overview of the HMI screen.

E15.4 The electrical maintenance group shall be provided an overview of the electrical upgrades system during commissioning.

E15.5 Provide field training sessions for two (2) separate instrumentation technician groups of two (2) hours in length for the HMI's and PLC programming. As a minimum, the sessions shall cover the following topics:

- (a) safety;
- (b) PLC program structure;
- (c) operation;
- (d) troubleshooting;
- (e) preventative and predictive maintenance;
- (f) corrective maintenance;
- (g) parts; and
- (h) local representation.

E15.6 Sessions shall be limited to Business Days within the following windows of time:

- (a) 8:00 a.m. to 12:00 p.m.; and
- (b) 1:00 p.m. to 4:00 p.m.

E15.7 Training Plan

E15.7.1 The Training Plan shall be based upon the Operation and Maintenance manuals with complete consistency between training and the Operation and Maintenance manual.

- E15.7.2 Incorporate feedback from training into Operation and Maintenance manuals.
- E15.7.3 The Training Plan shall include the following:
- (a) course name and outline;
 - (b) detailed course description including the specific Work components addressed in the course;
 - (c) planned duration;
 - (d) measurable learning objectives; and
 - (e) format and implementation methodology.
- E15.8 Field Training Requirements
- E15.8.1 For all required field training and demonstrations:
- (a) use the new infrastructure;
 - (b) provide field training sessions in a manner that all participants can see and hear all demonstrations provided;
 - (c) arrange for and require City personnel to perform the demonstrated procedures; and
 - (d) ensure all training is in accordance with SWPs and SOPs.
- E15.8.2 Training Coordination with the City
- (a) Training shall be scheduled and coordinated to not interfere with the operation and maintenance of the water treatment and distribution systems.
 - (b) Coordinate with the Contract Administrator regarding dates and times for training sessions. All dates and times are subject to availability of City personnel.
 - (c) Endeavor to coordinate field training sessions to limit the number of participants to no more than six (6) for demonstration and hands-on training purposes.
- E15.9 Measure and Payment
- E15.9.1 Training will be measured on a unit basis and paid for at the Contract unit price for "Training" for supplying all materials and performing all operations herein described and all other items incidental to the Work including in this Specification and accepted by the Contract Administrator.

E16. CLOSEOUT

- E16.1 Substantial Performance
- (a) The Contractor shall inspect Work and identify defect and deficiencies prior to arranging a Substantial Performance inspection with the Contract Administrator in accordance with D19.
 - (b) The Contractor shall perform final updates to programming, software version, and firmware prior to Substantial Performance.
- E16.2 Total Performance
- (a) Total Performance shall be in accordance with D20.
 - (b) The Contractor shall submit the following Submittals prior to Total Performance in accordance with 01 33 00 – Submittal Procedures in the NMS:
 - (i) final Operations and Maintenance Manual in accordance with Section 01 78 00 – Closeout Submittals, Division 25 – Process Devices, Division 26 – Electrical, and Division 29 – Instrumentation and Control in the NMS;
 - (ii) final As-Built Drawing mark-ups; and
 - (iii) digital files of the final programming (SCADA, PLC, and LHMI) in accordance with Division 29 – Instrumentation and Control to align with Work performed.

E16.3 Measure and Payment

E16.3.1 Project closeout will be considered incidental to the Work and no measurement or payment will be made.

E17. OPERATING CONSTRAINTS FOR WORK IN CLOSE PROXIMITY TO CRITICAL INFRASTRUCTURE

E17.1 Description

E17.1.1 This section details operating constraints for all Work to be carried out in close proximity to the Interconnector Aqueduct, MacLean RPS suction inlet and discharge piping, valve chambers, and other critical water infrastructure.

E17.2 The following shall be considered critical pipelines and water infrastructure for this Work:

(a) Valve Pits:

(i) LAV-1, LAV-2, LRV-1, and LRV-2;

(b) Pipes:

(i) The Aqueduct Interconnector is a one thousand three hundred fifty (1,350) millimetres (mm) pre-stressed concrete cylinder pressure pipe circa 1964. The Aqueduct Interconnector is installed below grade and to the west of the slope of the MacLean Reservoir. The depth of burial is approximately 1.2 m to 1.5 m below grade to the overt of the pipe (Historical Reference Drawing ME-57 in Appendix G);

(ii) MacLean RPS South Suction Header is a one thousand five hundred (1,500) mm pre-stressed concrete cylinder pressure pipe circa 1964. This suction header is installed from the south face of the MacLean RPS to the MacLean Reservoir Valve House and is approximately 4.2 m below grade in front of the MacLean Reservoir Valve House (Historical Reference Drawings ME-46 and ME-57 in Appendix G); and

(iii) MacLean RPS North Suction Header is a one thousand five hundred (1,500) mm pre-stressed concrete cylinder pressure pipe circa 1964. This suction header is installed from the northeast face of the MacLean RPS to the MacLean Reservoir Valve House and is approximately 4.2 m below grade in front of the MacLean Reservoir Valve House (Historical Reference Drawings ME-46 and ME-57 in Appendix G).

E17.2.1 For further clarification of this buried infrastructure and other supporting buried infrastructure see Appendix G Drawings ME-46, ME-49, and ME-57.

E17.2.2 All Work procedures conducted by the Contractor on and/or near the Aqueduct Interconnector, RPS suction headers, reservoirs, and valve chambers shall be well planned and executed to ensure that these systems are not subjected to construction related loads, including excessive vibrations and concentrated or asymmetrical lateral loads.

E17.3 General Considerations for Work in close proximity to critical pipelines and water infrastructure

E17.3.1 General

(a) Light duty trucks, and service vehicles will be permitted adjacent to the valve chambers.

(b) Heavy equipment and cranes will not be permitted to operate directly over or within three (3) m of the centreline of piping.

(c) Under no circumstances will traffic or equipment be permitted on the buried MacLean Reservoir structure or adjacent valve chambers.

(d) No Work shall commence at the Site until the Submittals in Section E17.4.1 have been submitted and accepted, and the infrastructure locations have been clearly delineated in the field. Work over the pipes shall only be carried out with equipment that has been reviewed and quantified in terms of its loading implications on the pipe. All proposed construction equipment must be submitted to the Contract Administrator

and City for review prior to construction. Work in areas in close proximity to the pipes shall only be carried out with equipment that has been reviewed and quantified in terms of its loading implications by the Contract Administrator and the City.

- (e) Where Work is in close proximity to the pipes, utilize construction practices and procedures that do not impart excessive vibration loads on the pipes or that would cause settlement of the subgrade below the pipes.
- (f) Granular material, construction material, soil or other material shall not be stockpiled on the pipelines or within five (5) m of the pipe centerline.
- (g) Construction operations should be staged in such a manner as to limit multiple construction loads at one time.
- (h) The Contractor and all Site supervisory personnel and equipment operators shall be formally briefed to ensure that they are fully cognizant of the associated restrictions, constraints, and risks associated with working adjacent to and over this critical infrastructure. New personnel introduced after commencement of the project need to be formally orientated as to the significance and constraints associated with working over the critical infrastructure.

E17.3.2 It is the Contractors' responsibility to ensure that all work crew members understand and observe the requirements of E17.2 and E17.3. Prior to commencement of on-Site Work, the Contractor's superintendent, foreman and heavy equipment operators shall attend an orientation meeting that will outline restrictions for working on and around the critical infrastructure. Failure to comply with these restrictions will be grounds for removing the offending personnel from the Site.

E17.4 Submittals

E17.4.1 Submit proposed construction equipment Specifications which exceed the capacity of a standard 3/4 ton truck or will cause excessive ground vibrations to the Contract Administrator for review a minimum of ten (10) Business Days prior to construction. The equipment submission shall include:

- (a) equipment operating and payload weights;
- (b) equipment dimensions, including: wheel or track base, track length or axle spacing, track widths or wheel configurations; and
- (c) load distributions in the intended operating configuration.

E17.4.2 Submit a construction method statement to the Contract Administrator a minimum of ten (10) Business Days prior to construction. The construction method statement shall contain the following minimum information:

- (a) Proposed construction plan including routes, crane equipment locations, and loading positions.

E17.4.3 Incomplete or partial submissions will not be reviewed and will be returned to the Contractor for re-submission.

E17.4.4 Allow five (5) Business Days for review by the Contract Administrator and the City.

E18. CASH ALLOWANCE FOR ADDITIONAL WORK

E18.1 Additional Work may be necessitated due to unforeseen circumstances that may arise during the course of the project due to:

- (a) Additions to the scope of Work by the Contract Administrator, beyond that defined herein.

E18.2 A cash allowance has been included on Form B: Prices.

E18.3 The City reserves the right to delete any or all of the Cash Allowance from the Contract if the Work intended to be covered by the Cash Allowance is not required, or if the Works intended are found to be more extensive than the provisional Cash Allowance.

- E18.4 Cost of additional work shall be evaluated by the methods outlined in C7.4, and a Change Order prepared by the Contract Administrator. Cost of the Change Work Order will be paid on the Progress Estimate and deducted from the Cash Allowance. If the valuation of the authorized Work exceeds the Value of the Cash Allowance, the Contract Value will be adjusted by the shortfall.
- E18.5 Additional services and/or Work will not be initiated for:
- (a) reasons of lack of performance or errors in execution; and
 - (b) scheduling changes initiated by the City, where at least twenty-four (24) hours' notice is given prior to the Contractors schedule time to be on Site.
- E18.6 Should it be determined that additional material or services are required, the Contract Administrator shall approve the Work, prior to commencement of the additional Work.
- E18.7 Material Mark-Up Factors in accordance with C7:
- (a) the base cost is to be the wholesale cost of the material, regardless of the Contractor or Subcontractor supplying the material;
 - (b) in general, the party (Contractor or Subcontractor) supplying the material is the party that purchases the material from a supplier who does not perform any Work on Site, unless otherwise determined by the Contract Administrator;
 - (c) where the Contractor is supplying the material, the mark-up on the material is limited to fifteen percent (15%);
 - (d) where the Contractor's immediate Subcontractor is supplying the material the total mark-up on the material including all Subcontractors and the Contractor is limited to twenty-five percent (25%):
 - (i) the Subcontractor's mark-up on the material is limited to fifteen percent (15%); and
 - (ii) the Contractor's mark-up on the material is limited to ten percent (10%);
 - (e) a Third-Level Subcontractor is a Subcontractor of a Subcontractor of the Contractor.
 - (i) no Third-Level Subcontractors on this project are approved for additional mark-up.
- E18.8 In the event that a Third-Level Subcontractor is utilized, that is not approved for additional mark-up, the Contractor is responsible for coordinating the split of the maximum approved mark-up between the Contractor and Subcontractors.

PART F - SECURITY CLEARANCE

F1. SECURITY CLEARANCE

F1.1 Each individual proposed to perform Work under this Contract within facilities associated with the water supply, treatment and distribution system including the Shoal Lake Intake Facility, Shoal Lake Aqueduct, Deacon Reservoir, Water Treatment Plant, RPS, and Booster Pumping Stations shall be required to obtain a Global Sanctions & PEP Check **and** a Police Information Check as detailed below.

F1.1.1 The Global Sanctions & PEP Check must be obtained through Sterling BackCheck.

- (a) A Sterling BackCheck account must be setup seventy-two (72) hours prior to individual security clearances to allow sufficient time for activation of the contracting company's account. If the contracting company has an existing City of Winnipeg Sterling Backcheck vendor account, they may skip to (d) below.
- (b) An authorized individual of the contracting company must complete the Sterling Backcheck Setup Form. There is no cost to the organization to set up the account. Click on the link below, complete the form, and hit submit. ******(This form is to be completed by the company, not by the employee requiring the security clearances).
<https://forms.sterlingbackcheck.com/partners/platform2-en.php?&partner=winnipegcity>
- (c) Within forty-eight (48) hours of completing the Sterling Backcheck Setup Form, the authorized individual of the contracting company will receive a Username and Password for Sterling Backcheck. It will appear in their inbox as a "Welcome to Sterling Backcheck" email. Upon receipt, the authorized individual of the contracting company will be asked to login to the Sterling Backcheck website to set their security questions and password. Once completed, individual security clearance requests can be submitted.
- (d) In order to run a Global Sanctions & PEP Check and/or a Police Information Check, follow the steps below:
 - (i) click on the sub-tab labelled "Order eConsent";
 - (ii) fill out the required information about the employee proposed to perform Work under this Contract within City facilities (the person that requires the security clearances);
 - (iii) select your location under the "Order Information" section and enter the organization's phone number, if required;
 - (iv) select the required individual service(s) in the dropdown menu under the "Select Services" section. If both the Global Sanctions & PEP Check and the Police Information Check are required, select the Sterling Backcheck Package One (with electronic identity verification). Once selected, both the Global Sanctions & PEP Check and the Police Information Check should have a grey check mark beside them;
 - (v) scroll down to the bottom and click the blue "Submit" button. The employee proposed to perform Work under this Contract within City facilities will be invited to complete their security clearance;
 - (vi) the employee will receive the invitation and must click on the link and complete their Global Sanctions & PEP Check and/or Police Information Check; and
 - (vii) the results of the Global Sanctions & PEP Check and/or Police Information Check will go directly to the City of Winnipeg and to the authorized individual of the contracting company within twenty-four (24) hours;
- (e) Any questions related to the Sterling BackCheck process can be directed to Linda Ferens at 204-999-0912 or by email at: linda.ferens@sterlingcheck.com OR managedsupport@sterlingcheck.com

F1.1.2 The Police Information Check must be obtained from one of the following:

- (a) Sterling BackCheck;

- (i) See F1.1.1(a) thru (e) for instructions on how to set up an account and submit individuals for security checks; or
 - (b) A police service having jurisdiction at their place of residence;
 - (i) The original Police Information Check (Form P-612) will be provided by the Winnipeg Police Service to the individual applicant. The original has a validation sticker from the Winnipeg Police Service in the top right hand corner.
 - (ii) The applicant shall provide the original Police Information Check (Form P-612) to the Contract Administrator; or
 - (c) Commissionaires (Manitoba Division);
 - (i) Forms to be completed can be found on the website at: <https://www.commissionaires.ca/en/manitoba/home>
 - (ii) The applicant shall provide the original Police Information Check to the Contract Administrator; or
 - (d) FASTCHECK Criminal Record & Fingerprint Specialists;
 - (i) Forms to be completed can be found on the website at: <https://myfastcheck.com>
 - (ii) The applicant shall provide the original Police Information Check to the Contract Administrator.
- F1.2 Any individual for whom a Global Sanctions & PEP Check and/or a Police Information Check is not provided will not be permitted to perform any Work.
- F1.3 Individuals for whom a Global Sanctions & PEP Check indicates "CLEAR" and a Police Information Check demonstrates no previous convictions or pending charges will be permitted to perform Work as specified in F1.1.
- F1.4 Individuals for whom a Global Sanctions & PEP Check does not indicate "CLEAR" and/or a Police Information Check demonstrates previous convictions or pending charges may not be permitted to perform any Work as specified in F1.1.
 - (a) Previous convictions or pending charges may be investigated and a determination will be made by the City as to whether the individual will be permitted to perform any Work.
 - (b) Convictions or pending charges that may preclude an individual from performing any Work include but are not limited to:
 - (i) convictions or pending charges related to property offences; and/or
 - (ii) convictions or pending charges related to crimes against another person.
 - (c) Where additional investigation related to a Global Sanctions & PEP Check or a Police Information Check is required by the City, no extension to critical stages, Substantial Performance, or Total Performance, as applicable, will be provided.
 - (d) Additional investigation by the City may take upwards of six (6) weeks.
- F1.5 Prior to the award of Contract, and during the term of the Contract, if additional or replacement individuals are proposed to perform Work within City facilities, the Contractor shall supply the Contract Administrator with a Global Sanctions & PEP Check and a Police Information Check satisfactory to the City obtained not earlier than one (1) year prior to the Submission Deadline, or a certified true copy thereof, for each individual proposed to perform the Work.
- F1.6 Any Global Sanctions & PEP Check and Police Information Check determined to be satisfactory to the City will be deemed valid for the duration of the Contract subject to a repeated records search as hereinafter specified.
- F1.7 Notwithstanding the foregoing, at any time during the term of the Contract, the City may, at their sole discretion and acting reasonably, require an updated Global Sanctions & PEP Check and/or a Police Information Check. Any individual F1.1 who fails to provide a Global Sanctions & PEP Check and/or a Police Information Check satisfactory to the City as a result of a repeated records search will not be permitted to continue to perform any Work as specified in F1.1.

Appendix A – Major Equipment List

Appendix B – Submittal List

Appendix C – Electrical Inspection Forms

Appendix D – Asbestos Reports

Appendix E – Laydown Areas

Appendix F – Process Control Narrative

This appendix is confidential, refer to E1.4.2 on how to obtain the document(s) included in this appendix.

Appendix G – Historical Documents

<u>Drawing No.</u>	<u>Drawing Name/Title</u>
ME-46	Metro East Pumping Station and Reservoir Contract A – Pumping Station Yard Piping Plans and Profiles
ME-49	Metro East Pumping Station and Reservoir General Arrangement and Layout Control
ME-57	Metro East Pumping Station and Reservoir Yard Piping Plan and Profiles

Appendix H – Sample Non-Disclosure Agreement