



**THE CITY OF WINNIPEG**

# **TENDER**

**TENDER NO. 494-2021**

**SUPPLY, DELIVERY AND ON-SITE INSPECTIONS OF  
NEWPCC SUBMERSIBLE PUMPING EQUIPMENT**

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## **PART B - BIDDING PROCEDURES**

### **B1. CONTRACT TITLE**

B1.1 SUPPLY, DELIVERY AND ON-SITE INSPECTIONS OF NEWPCC SUBMERSIBLE PUMPING EQUIPMENT

### **B2. SUBMISSION DEADLINE**

B2.1 The Submission Deadline is 4:00 p.m. Winnipeg time, August 13, 2021.

B2.2 The Contract Administrator or the Manager of Materials may extend the Submission Deadline by issuing an addendum at any time prior to the time and date specified in B2.1.

### **B3. SITE INVESTIGATION**

B3.1 Further to C3.1, the Contract Administrator or an authorized representative will be available to conduct a site walkthrough of the North End Water Pollution Control Centre (NEWPCC) located at 2230 Main Street to provide Bidders access to the Site at the following times:

- (a) Wednesday, July 28, 2021 at 9:00am.
- (b) Friday, July 30, 2021 at 9:00am.

B3.2 Bidders are requested to register for the Site Investigation by contacting the Contract Administrator with the preferred site visit date they plan to attend. Bidders are asked to park in the designated Visitor Parking stalls at the site main building and meet at the flag pole.

B3.3 Bidders are requested to send only up to two (2) representatives from their project team due to COVID-19 safety protocols and precautions. Bidders are required to go through COVID-19 self-screening questionnaire shown in Appendix F on the day they plan on attending the site investigations.

B3.4 The Bidder is advised that they are responsible for providing their own Personal Protective Equipment (PPE) while at the Site including but not limited to CSA approved footwear, hard hat, and facemask. Bidders attending the site visits without proper PPE equipment will not be allowed to participate in the site visits walkthrough.

B3.5 The Bidder shall not be entitled to rely on any information or interpretation received at the Site investigations unless that information or interpretation is the Bidder's direct observation, or is provided by the Contract Administrator in writing.

B3.6 Although attendance at the Site Investigations is not mandatory, the City strongly recommends that Bidders attend at least one (1) site investigation.

B3.7 The Bidder is responsible for determining:

- (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 nature of the surface and subsurface conditions at the Site;
- (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 this Bid or the performance of the Work.

#### **B4. ENQUIRIES**

- B4.1 All enquiries shall be directed to the Contract Administrator identified in D4.1.
- B4.2 If the Bidder finds errors, discrepancies or omissions in the Tender, or is unsure of the meaning or intent of any provision therein, the Bidder shall promptly notify the Contract Administrator of the error, discrepancy or omission 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](mailto: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](http://www.merx.com).
- B6.4 The Bidder is responsible for ensuring that he/she has 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 D4.

**B7. SUBSTITUTES**

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

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

B7.3 Requests for approval of a substitute will not be considered unless received in writing by the Contract Administrator at least seven (7) 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 Total Performance;
- (e) Certify that, in the case of a request for approval as an approved alternative, the substitute will adequately perform the functions called for by the general design, be similar in substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Total Performance.

B7.5 The Contract Administrator, after assessing the request for approval of a substitute, may in his/her sole discretion grant approval for the use of a substitute as an "approved equal" or as an "approved alternative", or may refuse to grant approval of the substitute.

B7.6 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, to the Bidder who requested approval of the substitute.

B7.6.1 The Contract Administrator will issue an Addendum, disclosing the approved materials, equipment, methods and products to all potential Bidders. The Bidder requesting and obtaining the approval of a substitute shall be responsible for disseminating information regarding the approval to any person or persons he/she wishes to inform.

B7.7 If the Contract Administrator approves a substitute as an "approved equal", any Bidder may use the approved equal in place of the specified item.

B7.8 If the Contract Administrator approves a substitute as an "approved alternative", any Bidder bidding that approved alternative may base his 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 B17.

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 SUBMISSION**

- B8.1 The Bid shall consist of the following components:
- (a) Form A: Bid;
  - (b) Form B: Prices;
  - (c) Form N: Detailed Specifications.
- 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](http://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 B17.1(a).

## **B9. BID**

- B9.1 The Bidder shall complete Form A: Bid, making all required entries.
- B9.2 Paragraph 2 of Form A: Bid shall be completed in accordance with the following requirements:
- (a) If the Bidder is a sole proprietor carrying on business in his own name, his name shall be inserted;
  - (b) If the Bidder is a partnership, the full name of the partnership shall be inserted;
  - (c) If the Bidder is a corporation, the full name of the corporation shall be inserted;
  - (d) If the Bidder is carrying on business under a name other than his own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.
- B9.2.1 If a Bid is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B9.2.
- B9.3 In Paragraph 3 of Form A: Bid, the Bidder shall identify a contact person who is authorized to represent the Bidder for purposes of the Bid.
- B9.4 Paragraph 13 of Form A: Bid shall be signed in accordance with the following requirements:
- (a) If the Bidder is a sole proprietor carrying on business in his own name, it shall be signed by the Bidder;
  - (b) If the Bidder is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;
  - (c) If the Bidder is a corporation, it shall be signed by its duly authorized officer or officers;
  - (d) If the Bidder is carrying on business under a name other than his own, it shall be signed by the registered owner of the business name, or by the registered owner's authorized officials if the owner is a partnership or a corporation.
- B9.4.1 The name and official capacity of all individuals signing Form A: Bid should be entered below such signatures.
- B9.5 If a Bid is submitted jointly by two or more persons, the word "Bidder" shall mean each and all such persons, and the undertakings, covenants and obligations of such joint Bidders in the Bid and the Contract, when awarded, shall be both joint and several.

## **B10. PRICES**

- B10.1 The Bidder shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.
- B10.1.1 Prices on Form B: price shall include:
- (a) Duty;
  - (b) Freight and cartage;
  - (c) Off-loading goods at site
- 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).
- B10.4.1 Notwithstanding C12.2.1 and C12.2.3, prices on Form B: Prices shall not include the Goods and Services Tax (GST) or Manitoba Retail Sales Tax (MRST, also known as PST), which shall be extra where applicable.
- B10.5 The Bidder shall enter the Total Bid Price from Form B: Prices into the Total Bid Price field in MERX.
- B10.6 Bidders are advised that the calculation indicated in B17.5 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) Power and Mine Supply Co. Ltd
- B11.3 Additional Material:
- (a) Information related to existing submersible KSB Amacan PB4 700-470/1406 UAG1 Pumps currently in use, pump conditioning monitoring instruments, datasheets on KSB Amacan PB4 700-470/A1206 UTG1 Pumps.

## **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 its participation in the Tender process or the Work; or
- (f) has knowledge of confidential information (other than confidential information disclosed by the City in the normal course of the Tender process) of strategic and/or material relevance to the Tender process or to the Work that is not available to other bidders and that could or would be seen to give that Bidder an unfair competitive advantage.

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

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

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

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

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

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

### **B13. QUALIFICATION**

**B13.1** The Bidder shall:

- (a) undertake to be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba, or if the Bidder

- does not carry on business in Manitoba, in the jurisdiction where the Bidder does carry on business; and
- (b) be financially capable of carrying out the terms of the Contract; and
  - (c) have all the necessary experience, capital, organization, and equipment to perform the Work in strict accordance with the terms and provisions of the Contract.
- B13.2 The Bidder and any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:
- (a) be responsible and not be suspended, debarred or in default of any obligations to the City. A list of suspended or debarred individuals and companies is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <https://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; and
  - (b) be fully capable of performing the Work required to be in strict accordance with the terms and provisions of the Contract; and
  - (c) have a written workplace safety and health program, if required, pursuant to The Workplace Safety and Health Act (Manitoba).
- B13.4 Further to (c), the Bidder shall, within five (5) Business Days of a request by the Contract Administrator, provide proof satisfactory to the Contract Administrator that the Bidder/Subcontractor has a workplace safety and health program meeting the requirements of The Workplace Safety and Health Act (Manitoba), by providing:
- (a) Written confirmation of a safety and health certification meeting SAFE Work Manitoba's SAFE Work Certified Standard (e.g., COR™ and SECOR™) in the form of:
    - (i) a copy of their valid Manitoba COR certificate and Letter of Good Standing (or Manitoba equivalency) as issued under the Certificate of Recognition (COR) Program administered by the Construction Safety Association of Manitoba or by the Manitoba Heavy Construction Association's WORKSAFELY™ COR™ Program; or
    - (ii) a copy of their valid Manitoba SECOR™ certificate and Letter of Good Standing (or Manitoba equivalency) as issued under the Small Employer Certificate of Recognition Program (SECOR™) administered by the Construction Safety Association of Manitoba or by the Manitoba Heavy Construction Association's WORKSAFELY™ COR™ Program; or
  - (b) a report or letter to that effect from an independent reviewer acceptable to the City. (A list of acceptable reviewers and the review template are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>).
- B13.5 The Bidder shall submit, within three (3) Business Days of a request by the Contract Administrator, proof satisfactory to the Contract Administrator of the qualifications of the Bidder and of any proposed Subcontractor.
- B13.6 The Bidder shall provide, on the request of the Contract Administrator, full access to any of the Bidder's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Bidder's equipment and facilities are adequate to perform the Work.
- B13.7 The Bidder shall:
- (a) Acknowledge the responsibility as the Contractor to ensure the WWSD meets the commitments that are outlined in the Environmental Management Policy.

- (b) Provide detailed information of all steps that will be taken to ensure that the EMS requirements are met upon request.
- (c) Be aware that the following Acts, Regulations, and By-laws may apply to the work:

Federal:

- a) Canadian Environmental Assessment Act;
- b) Canadian Environmental Protection Act;
- c) Fisheries Act and Regulations;
- d) Pest Control Products Act;
- e) Migratory Bird Convention Act; and
- f) Transportation of Dangerous Goods Act and Regulations.

Provincial:

- a) The Dangerous Goods Handling and Transportation Act;
- b) The Endangered Species Act;
- c) The Environment Act;
- d) The Fire Prevention Act;
- e) The Pesticides and Fertilizers Control Act;
- f) The Manitoba Heritage Resources Act;
- g) The Manitoba Noxious Weeds Act;
- h) The Manitoba Nuisance Act;
- i) The Public Health Act;
- j) The Red River Floodway Act;
- k) The Water Rights Act;
- l) The Workplace Safety and Health Act; and
- m) Applicable associated regulations.

Municipal

- a) Neighbourhood Liveability By-law
- b) Pesticide Management By-law
- c) Sewer By-law
- d) Solid Waste By-law
- e) Water By-law
- f) The City of Winnipeg By-Law

B13.8 Have onsite staff that is trained and certified in the handling of the dangerous/hazardous goods, when said dangerous/hazardous goods are being utilized on site for the performance of the work.

**B14. OPENING OF BIDS AND RELEASE OF INFORMATION**

B14.1 Bids will not be opened publicly.

B14.2 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](http://www.merx.com).

B14.3 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](http://www.merx.com).

B14.4 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).

B14.4.1 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.

## **B15. IRREVOCABLE BID**

B15.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 11 of Form A: Bid.

B15.2 The acceptance by the City of any Bid shall not release the Bids of the next two lowest evaluated responsive Bidders and these Bidders shall be bound by their Bids on such Work until a Contract for the Work has been duly executed and the contract security 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.

## **B16. WITHDRAWAL OF BIDS**

B16.1 A Bidder may withdraw his/her Bid without penalty at any time prior to the Submission Deadline.

## **B17. EVALUATION OF BIDS**

B17.1 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 therefrom (pass/fail);
- (b) Complete all sections on Form N (Detailed Specifications) or acceptable deviations (pass/fail);
- (c) Qualifications of the Bidder and the Subcontractors, if any, pursuant to B13 (pass/fail);
- (d) Total Bid Price;
- (e) economic analysis of any approved alternative pursuant to B7.

B17.2 Further to B17.1(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.

B17.3 Further to B17.1(a), the Award Authority may reject all or any part of any Bid for failure to complete Form N and/or any Form N items deemed as a Fail without an acceptable deviation.

B17.4 Further to B17.1(c), 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 he/she is qualified.

B17.5 Further to B17.1(d), the Total Bid Price shall be the sum of the quantities multiplied by the unit prices for each item shown on Form B: Prices.

B17.5.1 Further to B17.1(a), in the event that a unit price is not provided on Form B: Prices, the City will determine the unit price by dividing the Amount (extended price) by the approximate quantity, for the purposes of evaluation and payment.

B17.6 This Contract will be awarded as a whole.

## **B18. AWARD OF CONTRACT**

B18.1 The City will give notice of the award of the Contract, or will give notice that no award will be made.

- B18.2 The City will have no obligation to award a Contract to a Bidder, even though one or all of the Bidders are determined to be qualified, and the Bids are determined to be responsive.
- B18.2.1 Without limiting the generality of B18.2, the City will have no obligation to award a Contract where:
- (a) the prices exceed the available City funds for the Work;
  - (b) the prices are materially in excess of the prices received for similar work in the past;
  - (c) the prices are materially in excess of the City's cost to perform the Work, or a significant portion thereof, with its own forces;
  - (d) only one (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.
- B18.3 Where an award of Contract is made by the City, the award shall be made to qualified Bidder submitting the lowest evaluated responsive Bid in accordance with B17.
- B18.4 Further to Paragraph 6 of Form A: Bid and C4, the City may issue a purchase order to the successful Bidder in lieu of the execution of a Contract.
- B18.4.1 The Contract Documents, as defined in C1.1(p), in their entirety shall be deemed to be incorporated in and to form a part of the purchase order notwithstanding that they are not necessarily attached to or accompany said purchase order.

## **PART C - GENERAL CONDITIONS**

### **C0. GENERAL CONDITIONS**

- C0.1 The *General Conditions for the Combined Provision of Goods and Services (2020-01-31)* are applicable to the Work of the Contract.
- C0.1.1 The *General Conditions for the Combined Provision of Goods and Services* are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at [http://www.winnipeg.ca/matmgt/gen\\_cond.stm](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 the Combined Provision of Goods and Services*.

## PART D - SUPPLEMENTAL CONDITIONS

### GENERAL

#### D1. GENERAL CONDITIONS

D1.1 In addition to the *General Conditions for the Combined Provision of Goods and Services*, these Supplemental Conditions are applicable to the Work of the Contract.

#### D2. SCOPE OF WORK

D2.1 The Work to be done under the Contract shall consist of supply, delivery, on-site commissioning activities and virtual training of six (6) vertical axial flow submersible pumps complete with lifting chains, power and control cables, five (5) spare part kits, the provision of initial start-up inspection and assisting with commissioning activities, virtual training and warranty for all of the equipment supplied under this contract.

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

- (a) Supply and deliver six (6) vertical axial flow submersible pumps.
- (b) Supply and deliver spare parts including: one (1) spare tube adapter (if required), one (1) complete set of power and control cables, one (1) spare impeller, one (1) spare wear ring and five (5) spare part kits.
- (c) Provide two (2) separate in-person site visits for City personnel to witness factory acceptance testing.
- (d) Provide six (6) on-site installation inspections and assist with commissioning activities.
- (e) Carry the costs of an authorized ABB field representative for six (6) on-site visits.

D2.3 The Contractor and their Subcontractors shall:

- (a) Acknowledge the receipt of the Wastewater Services Division (WWSD) Contractor's Environmental Preservation and Compliance Package by an email to the Project Manager or Contract Administrator.
- (b) Comply with the Environmental Management Systems (EMS) contractor's package of the Wastewater Services Division attached as Appendix E.
- (c) Deliver EMS awareness training to employees and anyone who will be working on projects for the Wastewater Services Division (WWSD) through formal education, online training interactive training or work experience.
- (d) Be aware of their obligation as stated in the Wastewater Services Division's Environmental Policy that provides overall direction for the WWSD's environmental performance and provides a framework for setting environmental objectives and targets. This policy can be found online through the City of Winnipeg Wastewater Services website:  
<https://www.winnipeg.ca/waterandwaste/sewage/legislation.stm>
- (e) Identify and understand the environmental impacts of your work. Environmental impacts may include, but are not limited to:
  - (i) Depletion of natural resources
  - (ii) Conservation management and biodiversity
  - (iii) Soil contamination
  - (iv) Air emissions and pollution
  - (v) Water pollution
  - (vi) Noise pollution
  - (vii) Spills and releases
  - (viii) Disturbance to local community and fauna
  - (ix) Use of landfill spaces and waste management

### **D3. DEFINITIONS**

D3.1 When used in this Tender:

- (a) **"City"** means City of Winnipeg Water and Waste Department;
- (b) **"DCS"** means Digital Control System;
- (c) **"EMS"** means Environmental Management System;
- (d) **"FAT"** means Factory Acceptance Testing;
- (e) **"VFD"** means Variable Frequency Drive;
- (f) **"WWSD"** means Wastewater Services Division;

D3.2 Notwithstanding C1.1, when used in this Tender:

- (a) **Aspect Environmental:** "An environmental aspect is an activity, product or service that can interact with the environment while environmental specifications can be implemented to prevent or mitigate these impacts"
- (b) **Instream:** "Waterway/Waterbody"
- (c) **Watercourse:** "A natural or artificial channel through which water flows"

### **D4. CONTRACT ADMINISTRATOR**

D4.1 The Contract Administrator is:

Kevin Sapiak, P.Eng.  
Project Engineer  
Wastewater Services Division  
Telephone No. (431) 278-0876  
Email Address. kevin.sapiak@winnipeg.ca

D4.2 At the pre-commencement meeting, the Contract Administrator will identify additional personnel representing the Contract Administrator and their respective roles and responsibilities for the Work.

### **D5. NOTICES**

D5.1 Notwithstanding C22.4, all notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the Contractor shall be sent to the address or facsimile number identified by the Contractor in Paragraph 2 of Form A: Bid/Proposal.

D5.2 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the City, except as expressly otherwise required in, D5.3 or elsewhere in the Contract, shall be sent to the attention of the Contract Administrator identified in D4.

D5.3 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications required to be submitted or returned to the City Solicitor shall be sent to the following facsimile number:

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

## **SUBMISSIONS**

### **D6. AUTHORITY TO CARRY ON BUSINESS**

D6.1 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.

### **D7. INSURANCE**

D7.1 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; such liability policy to also contain a cross-liability clause, non-owned automobile liability and products and completed operations cover, to remain in place at all times during the performance of the Work;
- (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 Service. The Limit of Liability shall not be less than \$2,000,000 inclusive for loss or damage including personal injuries and death resulting from any one accident or occurrence;

D7.2 Deductibles shall be borne by the Contractor.

D7.3 The Contractor shall provide the Contract Administrator 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 on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract Documents, as applicable.

D7.4 The Contractor shall not cancel, materially alter, or cause the policy to lapse without providing at least thirty (30) Calendar Days prior written notice to the Contract Administrator.

### **D8. SAFETY DATA SHEETS**

D8.1 The Contractor shall provide the Contract Administrator with one (1) copy of Safety Data Sheets (SDS's) for each product to be supplied under the Contract at least two (2) Business Days prior to the commencement of Work but in no event later than the date specified in C4 for the return of the executed Contract.

D8.2 Throughout the term of the Contract, the Contractor shall provide the Contract Administrator with revisions or updates of the SDS's as soon as may be reasonably possible.

### **D9. CONTRACT SECURITY**

D9.1 If the Contract Price exceeds twenty-five thousand dollars (\$25,000.00), the Contractor shall provide and maintain contract security 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) an irrevocable standby letter of credit issued by a bank or other financial institution registered to conduct business in Manitoba and drawn on a branch located in Winnipeg, in the form attached to these Supplemental Conditions (Form H3: Irrevocable Standby Letter of Credit), in the amount of fifty percent (50%) of the Contract Price; or

- (c) a certified cheque or draft payable to “The City of Winnipeg”, drawn on a bank or other financial institution registered to conduct business in Manitoba, in the amount of fifty percent (50%) of the Contract Price.

D9.2 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.
- (e) the results of the verification must provide a clear, immediate and printable indication of pass or fail regarding B1.1.1(b).

D9.2.1 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 its discretion, exercised reasonably, allows.

D9.2.2 Digital bonds passing the verification process will be treated as original and authentic.

D9.2.3 Where the contract security is in the form of a certified cheque or draft, it will be deposited by the City. The City will not pay any interest on certified cheques or drafts furnished as contract security.

D9.3 The Contractor shall provide the City Solicitor with the required contract security within seven (7) Calendar Days of notification of the award of the Contract by way of Purchase Order and prior to the commencement of any Work on the Site.

## **D10. SUBCONTRACTOR LIST**

D10.1 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 but in no event later than the date specified in C4.1 for the return of the executed Contract Documents, if applicable.

## **SCHEDULE OF WORK**

### **D11. COMMENCEMENT**

D11.1 The Contractor shall not commence any Work until he/she is in receipt of a notice of award from the City authorizing the commencement of the Work.

D11.2 The Contractor shall not commence any Work until:

- (a) the Contract Administrator has confirmed receipt and approval of:
  - (i) evidence of authority to carry on business specified in D6;
  - (ii) evidence of the workers compensation coverage specified in C6.18;
  - (iii) evidence of the insurance specified in D7;
  - (iv) the safety data sheets specified in D8; and
  - (v) the contract security specified in D9;

- (vi) the Subcontractor list specified in D10;
- (b) the Contractor has attended a meeting with the Contract Administrator, or the Contract Administrator has waived the requirement for a meeting.

D11.3 Upon receiving receipt of the notice of award from the Contract Administrator, commencement of the Work shall be at the discretion of the Contractor provided the commencement date will allow for the achievement of Critical Stages in accordance with D13.

## **D12. DELIVERY**

D12.1 All goods (excluding Operations & Maintenance Manuals) shall be received by May 16, 2022, Delivered Duty Paid (DDP) destination, freight and duty prepaid to:

North End Water Pollution Control Centre (NEWPCC)  
2230 Main Street, Winnipeg, Manitoba, R2V 4T8

The Contractor shall confirm each delivery with the Contract Administrator, at least three (3) Business Days before deliveries will arrive at site.

- D12.2 Goods shall be delivered between 8:00 a.m. and 12:00 p.m. along with 1:00pm and 3:00 pm on Business Days.
- D12.3 The Contractor shall provide off-loading of goods as directed at the delivery location. The Contractor shall pay and arrange for a mobile crane and/or any other equipment required for off-loading goods onto City of Winnipeg flat deck trailers. The Contractor shall also be on-site while goods are being off-loaded.

## **D13. CRITICAL STAGES**

- D13.1 The Contractor in conjunction with the City shall achieve critical stages of the Work in accordance with the following requirements:
- (a) Shop Drawings approved by November 2, 2021
  - (b) Shipment 1 received at site by April 11, 2022
  - (c) Shipment 2 received at site by May 16, 2022
  - (d) Total Performance by the City planned for June 20, 2022
  - (e) Operations & Maintenance Manuals received at site by September 2, 2022

## **D14. TOTAL PERFORMANCE**

- D14.1 Total Performance is planned to be achieved by June 20, 2022.
- D14.2 Total Performance shall be the date of one (1) week of operational service after all six (6) pumps have been successfully installed and commissioned.
- D14.3 Prior to the Contract Administrator considering the Work to be at a stage of Total Performance, 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 individual pump installation and commissioning site visits shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be addressed.
- D14.4 The date on which the Work has been certified by the Contract Administrator as being Total Performance achieved 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.

## **D15. LIQUIDATED DAMAGES**

- D15.1 If the Contractor fails to achieve Critical Stages in accordance with the Contract by the days fixed herein for same, the Contractor shall pay the City the following amounts per Working Day for each and every Working Day following the days fixed herein for same during which such failure continues:
- (a) Shipment 1 received at site – five hundred dollars (\$500) per day;
  - (b) Shipment 2 received at site – five hundred dollars (\$500) per day;
- D15.2 The amounts specified for liquidated damages in D15.1 are based on a genuine pre-estimate of the City's losses in the event that the Contractor does not achieve critical stages by the days fixed herein for same.
- D15.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

## **D16. COVID-19 SCHEDULE DELAYS**

- D16.1 The City acknowledges that the schedule for this Contract may be impacted by the COVID-19 pandemic. Commencement and progress of the Work shall be performed by the Contractor with due consideration to the health and safety of workers and the public, directives from health authorities and various levels of government and in close consultation with the Contract Administrator.
- D16.2 If the Contractor is delayed in the performance of the Work by reason of the COVID-19 pandemic, 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.
- D16.3 A minimum of seven (7) Calendar Days prior to the commencement of Work, the Contractor shall declare whether COVID-19 will affect the start date. The Contractor shall provide sufficient evidence that the delay is directly related to COVID-19, including but not limited to evidence related to availability of staff, availability of Material or work by others.
- D16.4 For any delay related to COVID-19 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 D16.3. Failure to provide this notice will result in no additional time delays being considered by the City.
- D16.5 The Work schedule, including the durations identified in D12 where applicable, will be adjusted to reflect delays accepted by the Contract Administrator.
- D16.6 Any time or cost implications as a result of COVID-19 and in accordance with the above, as confirmed by the Contract Administrator, shall be documented in accordance with C7.

## **CONTROL OF WORK**

### **D17. SAFETY**

- D17.1 The Contractor shall be solely responsible for safety at the Site and for compliance with all laws, rules, regulations and practices required by the applicable safety legislation.
- D17.2 The Contractor shall be solely responsible for securing the Site, and any existing facility thereon, and for the proper care and protection of the Work already performed.
- D17.3 The Contractor shall do whatever is necessary to ensure that:
- (a) no person, property, right, easement or privilege is injured, damaged or infringed by reason of the Contractor's activities in performing the Work;

- (b) the health and safety of all persons employed in the performance of the Work or otherwise is not endangered by the method or means of its performance;
- (c) adequate medical services are available to all persons employed on the Work and at all times during the performance of the Work;
- (d) adequate sanitation measures are taken and facilities located with respect to the Work.

## MEASUREMENT AND PAYMENT

### D18. INVOICES

D18.1 Further to C12, the Contractor shall submit an invoice for each portion of work performed as identified in D18 to:

The City of Winnipeg  
Corporate Finance - Accounts Payable  
4th Floor, Administration Building, 510 Main Street  
Winnipeg MB R3B 1B9

Facsimile No.: 204 949-0864

Send Invoices to [CityWpgAP-INVOICES@winnipeg.ca](mailto:CityWpgAP-INVOICES@winnipeg.ca)

Send Invoice Inquiries to [CityWpgAP-INQUIRIES@winnipeg.ca](mailto:CityWpgAP-INQUIRIES@winnipeg.ca)

Ensure the Contract Administrator is CC'd on all Invoice emails

D18.2 Invoices must clearly indicate, as a minimum:

- (a) the City's purchase order number;
- (b) the City's project number and title: 'S-1230 – NEWPCC UV Pump Replacement Project';
- (c) the Contract Administrator's name;
- (d) date of delivery;
- (e) delivery address;
- (f) type and quantity of work performed;
- (g) the amount payable with GST and MRST shown as separate amounts; and
- (h) the Contractor's GST registration number.

D18.3 The City will bear no responsibility for delays in approval of invoices which are improperly submitted.

### D19. PAYMENT

D19.1 Further to C12, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

### D20. PAYMENT SCHEDULE

D20.1 Further to C12, payment shall be in accordance with the following payment schedule:

- (a) Ten (10) percent upon the approval of Shop Drawings.
- (b) Thirty-five (35) percent upon successful delivery of Shipment 1 to the location identified in E2.
- (c) Thirty-five (35) percent upon successful delivery of Shipment 2 to the location identified in E2.
- (d) Fifteen (15) percent upon successful installation (by others) and completion of commissioning activities of all six (6) pumps.
- (e) Five (5) percent upon delivery and acceptance of Operation and Maintenance (O&M) manuals along with training, training sessions provided and submittal of lessons learned.

## **WARRANTY**

### **D21. WARRANTY**

D21.1.1 Warranty is as stated in E9.

**FORM H1: PERFORMANCE BOND**  
(See D9)

KNOW ALL MEN BY THESE PRESENTS THAT

\_\_\_\_\_ ,  
(hereinafter called the "Principal"), and

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

\_\_\_\_\_ dollars (\$\_\_\_\_\_.)

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

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

TENDER NO. 494-2021

**SUPPLY, DELIVERY AND ON-SITE INSPECTIONS OF  
NEWPCC SUBMERSIBLE PUMPING EQUIPMENT**

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)

All demands for payment shall specifically state that they are drawn under this Standby Letter of Credit.

Subject to the condition hereinafter set forth, this Standby Letter of Credit will expire on

\_\_\_\_\_  
(Date)

It is a condition of this Standby Letter of Credit that it shall be deemed to be automatically extended from year to year without amendment from the present or any future expiry date, unless at least 30 days prior to the present or any future expiry date, we notify you in writing that we elect not to consider this Standby Letter of Credit to be renewable for any additional period.

This Standby Letter of Credit may not be revoked or amended without your prior written approval.

Except where they may conflict with the terms and conditions contained in this Letter of Credit, the International Standby Practices 1998 shall apply to this Letter of Credit. This Letter of Credit shall also be governed by and construed in accordance with the laws of the Province of Manitoba and of Canada as applicable therein, except to the extent that such laws are inconsistent with the International Standby Practices 1998. This Letter of Credit is subject to the exclusive jurisdiction of the courts in the Province of Manitoba and all courts competent to hear appeals therefrom.

\_\_\_\_\_  
(Name of bank or financial institution)

Per: \_\_\_\_\_  
(Authorized Signing Officer)

Per: \_\_\_\_\_  
(Authorized Signing Officer)

**FORM H3: IRREVOCABLE STANDBY LETTER OF CREDIT  
(CONTRACT SECURITY)  
(SeeD9)**

\_\_\_\_\_  
(Date)

The City of Winnipeg  
Legal Services Department  
185 King Street, 3rd Floor  
Winnipeg MB R3B 1J1

RE: CONTRACT SECURITY - TENDER NO. 494-2021

**SUPPLY, DELIVERY AND ON-SITE INSPECTIONS OF  
NEWPCC SUBMERSIBLE PUMPING EQUIPMENT**

Pursuant to the request of and for the account of our customer,

\_\_\_\_\_  
(Name of Contractor)

\_\_\_\_\_  
(Address of Contractor)

WE HEREBY ESTABLISH in your favour our irrevocable Standby Letter of Credit for a sum not exceeding in the aggregate

\_\_\_\_\_  
Canadian dollars.

This Standby Letter of Credit may be drawn on by you at any time and from time to time upon written demand for payment made upon us by you. It is understood that we are obligated under this Standby Letter of Credit for the payment of monies only and we hereby agree that we shall honour your demand for payment without inquiring whether you have a right as between yourself and our customer to make such demand and without recognizing any claim of our customer or objection by the customer to payment by us.

The amount of this Standby Letter of Credit may be reduced from time to time only by amounts drawn upon it by you or by formal notice in writing given to us by you if you desire such reduction or are willing that it be made.

We engage with you that all demands for payment made within the terms and currency of this Standby Letter of Credit will be duly honoured if presented to us at:

\_\_\_\_\_  
(Address)

and we confirm and hereby undertake to ensure that all demands for payment will be duly honoured by us.

All demands for payment shall specifically state that they are drawn under this Standby Letter of Credit.

Subject to the condition hereinafter set forth, this Standby Letter of Credit will expire on

\_\_\_\_\_  
(Date)

It is a condition of this Standby Letter of Credit that it shall be deemed to be automatically extended from year to year without amendment from the present or any future expiry date, unless at least 30 days prior to the present or any future expiry date, we notify you in writing that we elect not to consider this Standby Letter of Credit to be renewable for any additional period.

This Standby Letter of Credit may not be revoked or amended without your prior written approval.

Except where they may conflict with the terms and conditions contained in this Letter of Credit, the International Standby Practices 1998 shall apply to this Letter of Credit. This Letter of Credit shall also be governed by and construed in accordance with the laws of the Province of Manitoba and of Canada as applicable therein, except to the extent that such laws are inconsistent with the International Standby Practices 1998. This Letter of Credit is subject to the exclusive jurisdiction of the courts in the Province of Manitoba and all courts competent to hear appeals therefrom.

\_\_\_\_\_  
(Name of bank or financial institution)

Per: \_\_\_\_\_  
(Authorized Signing Officer)

Per: \_\_\_\_\_  
(Authorized Signing Officer)



## **PART E - SPECIFICATIONS**

### **GENERAL**

#### **E1. Applicable Specifications and Drawings**

- E1.1 These Specifications shall apply to the work.
- E1.2 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.

#### **E2. Site Location**

- E2.1 The location of work will be performed at the North End Water Pollution Control Centre (NEWPCC) located at 2230 Main Street, Winnipeg, Manitoba, R2V 4T8.
- E2.2 The Contractor shall pay and arrange for all Pumping equipment, spare parts, power and control cabling along with hard copy Operating and Maintenance manuals to be transported to location identified in E2.1. Equipment including any spare parts will be inspected by the City upon arrival at site location. The City will notify the Contractor for any defects found in writing. The Contractor at no additional charge shall arrange and replace any equipment and/or cabling found to be defective.
- E2.3 The Contractor shall arrange for his/her staff to be on site location identified in E2.1 for off-loading of transported goods, on-site inspections, on-site commissioning and on-site warranty walkthrough.

#### **E3. Shop Drawings**

- E3.1 Submit shop drawings for all Goods to be supplied and receive an approved release for construction from the Contract Administrator prior to Goods being manufactured for this Contract.
- E3.2 At the time of submission, inform the Contract Administrator in writing of any deviation in the shop drawings from the requirements of the Contract documents.
- E3.3 Submit an electronic file in a format acceptable to the Contract Administrator for items and information being depicted. The Contract Administrator will confirm electronically once submission has been received.
- E3.4 Allow for a minimum of ten (10) business days for the Contract Administrator to review and provide comments on the shop drawings from the date of received submission.
- E3.5 Shop drawings shall include at a minimum, but not limited to the following:
- (a) Include all attachments in one (1) electronic file. Separate files for attachments will not be accepted.
  - (b) All pages shall be setup for portrait letter size printing with the exception of drawings that shall be setup as landscape ANSI B (11" x 17") and/or ANSI D (24" x 34") size printing.
  - (c) A cover page listing the name of the Contractor and contact information, project description, City of Winnipeg Tender Number, City of Winnipeg Project Manager, Date of Submission, Revision Number.
  - (d) Table of Contents.
  - (e) Detailed information of the proposed equipment including model numbers, capacity, size, arrangements, electrical and mechanical characteristics as indicated and specified.

- (f) Wiring (connection) diagrams for all instruments included. Provide alarm and lock out recommended settings for each instrument on wiring (connection) diagrams. Provide mapping of any instrument analog 4-20mA signals.
- (g) Diagram of nameplate engraving details.
- (h) Pump curves for proposed pumps.
- (i) Data for accessory items.
- (j) List and quantity of spare parts (kits) proposed to be included.
- (k) Where multiple part numbers and/or information is provided, highlight information of equipment being referenced.
- (l) Special tools required for the installation, setup, operation and maintenance of the equipment.

E3.6 The Contract Administrator will review the shop drawing submissions and will release back to the vendor. The review is only for conformance with the design concept of the project and with the information given in the specifications. The Contract Administrator's review of a separate item shall not indicate approval of an assembly in which the item functions.

E3.7 Make any corrections required by the Contract Administrator and resubmit electronic shop drawing file. Direct specific attention in writing or on resubmitted shop drawings for revisions other than the corrections requested by the Contract Administrator on previous submissions.

E3.8 By approving and submitting shop drawings, the Contractor hereby represents that he/she has determined and verified all field measurements, field construction criteria, materials, catalogue numbers and similar data, or will do so, and that he/she has checked and coordinated each shop drawing and sample with requirements of the Contract.

E3.9 Final shop drawings to be included as part of the Operations & Maintenance Manuals shall be sealed by a Professional Engineer licenced to practice engineering in the Province of Manitoba.

E3.10 Provision of Shop Drawings will be considered incidental to the price for supply and delivery of the Goods and Materials.

#### **E4. Vertical Axial Flow Submersible Pumps, Accessories and FAT Testing**

E4.1 General:

- (a) This Specification shall cover the supply and delivery of pumping equipment, spare parts, and factory acceptance testing of the Goods at North End Water Pollution Control Centre (NEWPCC).
- (b) The existing submersible pumps currently in use are KSB Amacan PB4 700-470/1406 UAG1 and were manufactured in 2005.
- (c) Submersible motor pumps will be used to pump partially treated wastewater with no solids. Pumps will be installed in areas where hazardous gases may occur and shall be Totally Enclosed Explosion Proof (TEXP).
- (d) Pumps are required to fit within existing draft (discharge) tubes and shall be supported and sealed on bottom portion tampered edges. For pumps that require a smaller tube size, an adapter (if required) can be used to utilize the existing draft tube size. Existing draft tubes are non-removable and are encased in concrete. The upper portion of the existing draft tubes is 711mm in diameter while the bottom portion has a 45-degree tampered edge, where the draft tube diameter size decreases to 600mm. The Contractor shall provide an adapter and/or modification kit for each pump if required to utilize existing draft tubes if pumps require a smaller size draft tube.
- (e) Pumps must be CSA and/or cUL approved with Canadian approval logo engraved on each pump nameplate. Each pump nameplate shall be 316 stainless steel and be mechanical attached to each pump enclosure using 316 stainless steel hardware.

- (f) Pumps shall be in accordance with the latest edition of:
  - (i) CSA C22.1 – Canadian Electrical Code
  - (ii) CSA C22.2 No. 100 – Motors and Generators
  - (iii) CSA C22.2 No. 145 – Electric Motors and Generators For Use in Hazardous (Classified) Locations
- (g) Each pump shall be supplied with factory connected power and control cables. Cables shall be factory sealed penetrating the pump frame along with fully sealed along entire length to prevent the ingress of water. Cables shall be provided with accessories for installing the cable guides including: spacers, turnbuckle, supports, shackles, cable clamps and cable support sleeves. Cabling hardware shall be 316 stainless steel.

#### E4.2 Products:

- (a) Pumps General Requirements:
  - (i) Maximum Flow Rate at Lowest Operating Speed: 42 Mega Litres per Day (486 L/s)
  - (ii) Minimum Flow Rate at Full Speed: 83 Mega Litres per Day (960 L/s)
  - (iii) Minimum Static Head: 6.5 m
  - (iv) Maximum Static Head: 6.0 m
  - (v) Lower Draft Tube Discharge Size: 600 mm Diameter
  - (vi) Upper Draft Tube Discharge Size: 711 mm Diameter
  - (vii) Enclosure Material: Cast Iron
  - (viii) Direction of Rotation: Clockwise
  - (ix) Impeller: 316 Stainless Steel
  - (x) Pump Shaft: 316 Stainless Steel
  - (xi) Hardware: 316 Stainless Steel
  - (xii) Lifting Lugs/Chains Provided
  - (xiii) Support Ropes Provided
- (b) Motor General Requirements:
  - (i) Enclosure: Totally Enclosed Explosion Proof (TEXP)
  - (ii) Power Supply: 600 VAC, 3-Phase, 60 Hz.
  - (iii) Power Rating: 165 HP (123 kW) Maximum
  - (iv) Full Load Amps: 195A or Less
  - (v) Power Factor: 0.80 PF Minimum
  - (vi) Efficiency: 0.90 Minimum
  - (vii) Nominal Speed: 1175 to 1200 RPM
  - (viii) Windings: Copper
  - (ix) Motor Service Factor: 1.10
  - (x) Starts per Hour Capability: 10
  - (xi) Inverter Duty Rated for Variable Frequency Drive (VFD) Compatibility
  - (xii) Motor Shafts: 316, 416 or 416L Stainless Steel
  - (xiii) Hardware: 316 Stainless Steel
- (c) Power Cabling General Requirements:
  - (i) Number of Cables: One (1) or Two (2) per Phase
  - (ii) Size: 3/0 AWG for One (1) Cable or #3 AWG for Two (2) Cables
  - (iii) Material: Copper
  - (iv) Insulation: 1000V
  - (v) Temperature: 90°C
  - (vi) Length: 18 Metres Minimum
  - (vii) UV Protected: Yes

- (d) Instruments General Requirements:
  - (i) All instrument signals shall be capable of connecting directly to DCS system for condition monitoring and/or pump control panels for control operation. For instrument signals required, provide transmitters, cards and/or contacts for desired input signals.
  - (ii) Lower Bearing PT100 Temperature: Discrete Input (120 VAC rated contacts)
  - (iii) Upper Bearing PT100 Temperature: Discrete Input (120 VAC rated contacts)
  - (iv) Upper Bearing Vibration Sensor: Analog Input 4 – 20 mA (@ 24 VDC)
  - (v) Motor Winding PTC Temperature: Discrete Input (120 VAC rated contacts)
  - (vi) Pump Mechanical Leakage Sensor: Discrete Input (120 VAC rated contacts)
  - (vii) Motor Moisture (Seal Leakage) Sensor: Discrete Input (120 VAC rated contacts)
- (e) Control Cabling General Requirements:
  - (i) Number of Cables: One (1) or Two (2)
  - (ii) Cabling Type: Shielded
  - (iii) Material: Copper
  - (iv) Insulation: 300V
  - (v) Length: 18 Metres minimum
  - (vi) UV Protected: Yes
- (f) Pump Manufacturer Approved Products:
  - (i) KSB Amacan P / S Series
  - (ii) Flygt P 7000 Series
  - (iii) Ebara DSZ3 Series
  - (iv) ABS AFLX Series

#### E4.3 Pump and Motor Factory Acceptance Testing (FAT Testing):

- (a) Factory Acceptance Testing shall be carried out by the equipment manufacturer and shall be witnessed In-Person by City of Winnipeg personnel and/or City of Winnipeg representatives at no additional cost. A total of two (2) City of Winnipeg representatives would be participating in In-Person witnessing of the FAT testing.
- (b) The In-Person FAT testing shall be carried out on two (2) separate FAT testing site visits. The first (1<sup>st</sup>) site visit shall be arranged to perform FAT testing on the first three (3) pumps that will be delivered as part of Shipment 1. The second (2<sup>nd</sup>) site visit shall be arranged to perform FAT testing on the final three (3) pumps that will be delivered as part of Shipment 2. The equipment manufacturer shall arrange for FAT testing to be performed simultaneously on all three (3) pumps per FAT testing site visit.
- (c) Provide a minimum of fifteen (15) business days notice to the Contract Administrator prior to anticipated witness testing date.
- (d) Allow for an escort at the testing facility for participating City of Winnipeg representatives, equipment pictures to be taken, along with testing equipment, tools and materials to carry out testing. Make all equipment and labour accessible for participating personnel as directed.
- (e) A minimum of five (10) business days prior to anticipated FAT Testing date, submit test facility evidence of Canadian Certification, correct calibrations of all testing equipment to be used along with details on the test arrangement procedures. Include equipment calibrations and test arrangement procedures in the Operation & Maintenance Manual.
- (f) Submersible pumps shall be witnessed performance tested in accordance with Hydraulic Institute Standards 11.6, Grade 1B.
- (g) Conduct pump tests in accordance with Hydraulic Institute Standards – Vertical Pumps Test Code. All definitions for the purpose of testing shall be as set forth by Hydraulic Institute Standards – Vertical Pumps Ratings. Each pump shall be tested for:
  - (i) Dry Run Test to Verify Correct Rotation.

- (ii) Mechanical Seal Test Submerged for Forty-Eight (48) hours.
- (iii) Mechanical Seal Pressure Tested with Nitrogen Gas for Thirty (30) Minutes.
- (iv) Simulating Flow and Head Conditions for Flow Rates of 42 ML/d, 52 ML/d, 62 ML/d, 73 ML/d and 83 ML/d. Record motor efficiency and absorbed power usage at each flow rate listed. Absorbed power usage shall be obtained when power factor has been corrected to 0.95.
- (v) Developing a Certified Test Curve (per Hydraulic Institute Class A Standards) Showing Pump Performance.
- (vi) Vibration While Pump is Under Load.
- (vii) Measuring Bearing Temperatures While Under Load.
- (h) Conduct motor tests in accordance with CSA C22.2 No. 100 – Motors and Generators and CSA C22.2 No. 145 – Electric Motors and Generators For Use in Hazardous (Classified) Locations. Each motor shall be tested for:
  - (i) Run Test at Full Voltage and Full Speed.
  - (ii) Running Current at Motor Speeds Corresponding to Flow Rates of 42 ML/d, 52 ML/d, 62 ML/d, 73 ML/d and 83 ML/d.
  - (iii) Locked Rotor Current.
  - (iv) High Potential Test.
  - (v) Insulation Resistance Test.
  - (vi) Winding Resistance Test.
  - (vii) Motor Tightness Test Using Nitrogen for Thirty (30) Minutes.
  - (viii) Partial Discharge Test.
  - (ix) Surge Test
  - (x) Power Factor Test.
  - (xi) Test Cables for Insulation Defects.
- (i) Conduct instrument tests to verify operation and monitoring. Each instrument should be tested in the energized and de-energized states for:
  - (i) Operation of Discrete Signal Contacts.
  - (ii) Operation and Documenting Analog Signal Readings.
  - (iii) Measuring Resistance on Bearing Temperature RTD Circuits.
  - (iv) Measuring Resistance on Winding Temperature PTC Circuits.
  - (v) Test Cables for Insulation Defects.
- (j) At no additional cost, make any adjustments or changes required by the participating City of Winnipeg representatives such that each pump and associated equipment will pass every test. Final acceptance by the City of Winnipeg representatives will be a conditional requirement prior to pump shipments from the factory.
- (k) All factory acceptance tests shall be documented, dated and signed by the testing technician(s) with electronic copies submitted to Contract Administrator for approval prior to shipments from the factory. Include test results in the Operation & Maintenance Manual.

## **E5. Tools, Accessories and Spare Parts**

### **E5.1 Tools and Accessories:**

- (a) Provide two (2) sets total of special tools and/or accessories required for installation, maintenance, adjustment, assembly or disassembly of the pumping equipment supplied.

### **E5.2 Spare Parts:**

- (a) Provide one (1) set of spare power and control cables including hardware lug connectors, cable gland, cable connectors, cable protectors, clamps, ropes, shackles, tie bars, sockets, tubes, rings, seals, etc. required for one (1) pump complete installation.

- (b) If an adapter and/or a modification kit is required for submersible pumps to fit within existing draft tubes, provide one (1) spare adapter and/or modification kit.
- (c) Provide one (1) spare impeller along with one (1) spare wear ring (or wear plate with bolts) along with hardware required for one (1) pump complete installation.
- (d) Provide five (5) sets of spare parts total (one set for each installed pump) for the general overhaul maintenance activities of each installed pump required after a five (5) year in-service period interval. The following minimum spare parts shall be included as part of each set:
  - (i) Quantity 1 of Mechanical Seals and Accessories
  - (ii) Quantity 1 of O-Rings for Discharge Tube
  - (iii) Quantity 1 of Joint Rings
  - (iv) Quantity 1 of Lower Bearings (Pump Side) and Accessories
  - (v) Quantity 1 of Upper Bearings (Motor Side) and Accessories
  - (vi) Impeller Fastening Elements
  - (vii) Screwed Plugs
  - (viii) Pump Fasteners
  - (ix) Additional Hardware Required for Installing Spare Parts.
- (e) Properly package spare parts to avoid damage.
- (f) Clearly identify packages and their contents.
- (g) Spare parts shall be provided as package kits (if available) and identical to those supplied with the pumps.

## **E6. On-Site Start-Up Inspections and On-Site Commissioning Activities of Pumps**

- E6.1 On-site start-up inspections and on-site commissioning activities are planned to occur over one (1) full business day (8 hours) for each pump. The Contract Administrator will provide a minimum of five (5) Business Days notice of requirement for an on-site initial start-up inspection and on-site field commissioning activities. Only one (1) pump will be installed and commissioned at a time, therefore a total of six (6) separate on-site visits for start-up inspections and commission activities will be required by the Contractor. In order to ensure reliable operation of a new installed pump, it is anticipated that there will be at least a minimum of one (1) week duration between the time a new pump is installed and successfully commissioned until another new pump would be installed.
- E6.2 The Contractor will be required to carry the associated costs for a local (Winnipeg based) ABB approved representative(s) to be on-site during all six (6) pump initial start-up and commissioning activities. Integrated Power Services (IPS) are the approved local ABB representative(s) that will be required to reprogram the ABB variable frequency drives (VFDs) to match the motor electrical characteristics, provide new VFD setting letters (5 total) and assist with reading variable frequency drive (VFD) signals during installation. Contact Wade Baxted (Integrated Power Services – Business Development Manager) at Cell: (204) 782-3746 / Office: (204) 237-6066 / Email: [wbaxted@ips.ca](mailto:wbaxted@ips.ca) for pricing. Subcontractor pricing shall include all associated costs for travel, meals, accommodations and wages.
- E6.3 The Contractor will be required to provide inspection checklists and commissioning forms for each on-site pump inspection and commissioning activities. The Contractor will be responsible to fill out checklists and commission forms during site visits.
- E6.4 On-Site Start-up Inspections:
  - (a) Goods supplied under this Contract will be installed by the City. The Contractor will not be responsible for the installation construction work. The Goods including pumps and cabling delivered to site shall be defect free prior to installation.
  - (b) Provide the services of a qualified technical representative to be present at the initial start-up of each pump supplied under this Contract to perform the following:

- (i) Inspect the pumping equipment to ensure they have been properly installed in accordance with the manufacturer's instructions.
  - (ii) Conduct and document motor current draw, rotation and speed tests.
  - (iii) Check for unusual vibration and/or noises.
  - (iv) Verify connection of instruments for control philosophy and DCS monitoring.
  - (v) Instruct City personnel in the Operation and Maintenance of the Goods.
- (c) Ensure the existing variable frequency drives (VFDs) settings are changed to the correct parameters by the ABB representative(s). The existing VFDs model numbers currently in use are ABB ACS800-02-0320-7+H358 and were manufactured in 2005.
- (d) Promptly correct any deficiencies with the pumping equipment at the Contractor's expense to the satisfaction of the Contract Administrator.

#### E6.5 On-Site Commissioning Activities:

- (a) The Contractor along with the ABB representative will be required to assist with field commissioning activities that will be used to determine and check for the following:
- (i) Operation of pumps.
  - (ii) Unusual noise during operation (bearings, mechanical Seals, other).
  - (iii) Verification / readings of instrument signals to the control panels and DCS System.
  - (iv) Electrical power supplied to motors.
- (b) If the Field Commissioning testing indicates the Goods supplied does not meet the specified requirements, the Contractor shall promptly correct the issues at their expense and to the Contract Administrator's satisfaction.
- (c) If the Contractor is not satisfied with the procedure of the tests or the City's interpretation of the results thereof, the Contractor may have the tests repeated, or their interpretation referred to a referee to both the City and themselves. The cost of the services of such a referee shall be borne by the City if the referee rules that the tests as reported by the City were to the detriment of the Contractor. Otherwise if the referee rules in favour of the City, the Contractor shall pay the costs of the services of the referee and of the repeating tests required. The decision of the referee shall be final and binding both on the City and the Contractor.
- (d) The Contractor will be required to provide informal training to City personnel during commissioning activities. This informal training shall include instrument connections and signals, proper installation and operation procedures along with proper storage of spare parts.

#### E6.6 Field Inspection and Commissioning Reports:

- (a) Prepare and submit a separate field inspection and commissioning report for each pump site visit. A total of six (6) reports are to be submitted (1 for each site visit). Each field report shall be submitted electronically no later than five (5) business days after completion of commission testing site visit and include the following:
- (i) Contractor name and contact information of representative(s) on site.
  - (ii) Site visit dates and time on site.
  - (iii) Scope of the site visit.
  - (iv) Any findings, corrections made, deficiencies found and any other items.
  - (v) Pictures showing variable frequency drive displays, pump installation/operation along with instrument signals at control panels and DCS HMI screens. Each picture shall have a numbered caption (i.e. Picture 1 – Looking at DCS HMI Screen) and short narrative description.
  - (vi) Narrative of commissioning activities performed and challenges that occurred during each commission testing site visit.

E6.7 The price for “On-Site Start-Up Inspections” and ‘On-Site Commissioning Activities” shall include all costs associated with these items of work, including all subcontractor costs, travel expenses, accommodations, meals and wages.

**E7. Operating and Maintenance (O&M) Manuals**

E7.1 Provide the Contract Administrator with manufacturer’s technical literature for each component supplied detailing correct installation procedure and recommended operating and maintenance schedule, grades of lubricants required and assembly/disassembly instructions.

E7.2 The Contractor shall provide one (1) electronic copy and two (2) hardcopy draft versions of the installation & storage, operation and maintenance instructions prior to each shipment of goods from the factory.

E7.3 After the Contractor has reached Total Performance, provide the Contract Administrator with one (1) electronic copy for each review submission for the complete Operating and Maintenance Manuals.

E7.4 Provide the Contract Administrator with five (5) hard copies and five (5) electronic copies of the Contract Administrator reviewed an approved Operating and Maintenance Manuals. Bind hard copies in a three (3) “D-Ring”, hard-covered, plastic jacketed binder with full cover and spine inserts. Organize contents into applicable sections of work, parallel to Specifications breakdown and provide tab dividers for separating sections along with cover sheets for each section. Provide each binder with compact disk and/or USB for a complete electronic copy of Operating and Maintenance Manuals.

E7.5 In addition to the information called in the Specifications, the following shall be included as part of the Operating and Maintenance Manuals:

- (a) Title Sheet, labelled “Operation and Maintenance Instructions”, containing Project Number & Name (S-1230 – NEWPCC UV Pump Replacement Project), Date.
- (b) Table of Contents indicating all sections contained in the Operation and Maintenance manual.
- (c) Tab A – Contractor Information
  - (i) Contractor name and address.
  - (ii) Contractor contact representative with phone number and email.
  - (iii) All Sub-Contractors names, addresses and contact information.
- (d) Tab B – Warranty
  - (i) Letter of Warranty, signed and dated to include warranty start date (from the date as stated in E9), warranty end date, Contractor warranty information.
  - (ii) Description of work/parts that are covered under warranty and warranty durations.
- (e) Tab C – Products and Shop Drawings
  - (i) Specifications (similar to listed in section E4).
  - (ii) Copy of all approved and as-constructed Shop Drawings. As-constructed Shop Drawings shall be sealed by a Professional Engineer licenced to practice engineering in the Province of Manitoba.
- (f) Tab D – Spare Parts & Tools
  - (i) Provide instructions for handling and storage of spare parts.
  - (ii) Provide a listing of any special tools required to operate and/or maintain the products.
  - (iii) Provide a listing of all spare parts included with pictures of each part, part numbers, quantities and practical life spans.
- (g) Tab E – Certified Factory Test Results
  - (i) Calibration of equipment used for testing procedures and test procedure arrangements.

- (ii) Copy of all approved tests and documented information test forms completed at the factory, each test shall be signed by the Contractor representative and dated.
- (iii) Factory inspection and verification reports/forms.
- (iv) Any additional performance reports.
- (v) Copy of current edition of factory certification for CSA and/or cUL compliance for Canadian Approval.
- (h) Tab F – Sequence of Operation
  - (i) Sequence of Operation outlining how systems installed were designed to work.
  - (ii) Provide description of entire mechanical system, operation and control.
  - (iii) Provide operating instructions, including start-up and shutdown procedures.
- (i) Tab G – Installation and Removal Instructions
  - (i) Provide instructions for handling and storage of equipment.
  - (ii) Provide instructions for installation and removal of equipment (including instruments).
- (j) Tab H – Maintenance Activities
  - (i) Provide part books that illustrate and list all assemblies, sub-assemblies, and components for easy reference.
  - (ii) Provide instructions on preventative and corrective maintenance, with service procedures and recommended schedules.
  - (iii) Schedule for when preventative maintenance should be performed on all products including pumps, instruments, replacement of spare parts, etc.
  - (iv) Recommended frequency for each maintenance task, cleaning inspections and scheduled overhauls and/or reconditioning.
  - (v) Provide maintenance checklist forms and test procedures for performing maintenance tasks for mechanical and electrical components.
  - (vi) Provide troubleshooting table covering the complete control/electrical power systems, showing description of trouble, probable cause, and suggested remedial action.
  - (vii) Cleaning: Instructions and schedules for all routine cleaning and inspection recommended, including recommended cleaners and lubricants.
  - (viii) Inspection: Periodic inspection of equipment required for operation, cleaning or other reasons, with items to be inspected and inspection criteria given for motors, impeller, seals, bearings, instruments and other maintenance items.
  - (ix) Instructions for minor repairs and/or adjustments required for preventative maintenance routines.
  - (x) Instructions for any instruments and/or parts requiring calibration.
  - (xi) Listing of any special tools required to service and/or maintain the equipment.
- (k) Tab I – Inspection & Commissioning Reports
  - (i) Include six (6) field observation reports submitted for each site visit inspection and commissioning activities.
  - (ii) Confirmation letter identifying that all six (6) commissioning site visit activities were witnessed and verified to meet the requirements of the Specifications and the requirements of the project.
- (l) Tab J – Lessons Learned
  - (i) Prepare a lessons learned report, including a summary of the project scope, issues that arose throughout the project lifecycle, contributing factors to the issues, corrective actions taken, and lessons learned on the project.
- (m) Tab K – Spare Tab
- (n) Tab L – Spare Tab

## **E8. Training Sessions**

- E8.1 The Contractor shall provide virtual training to City staff by a factory-trained representative on the operation and maintenance of the pumps and the pump instruments.
- E8.2 Training for the pump equipment shall be conducted over Microsoft Teams. The Contractor shall provide a qualified representative as well as the necessary course materials. All course materials shall be provided as a presentation slide format.
- E8.3 The Contractor shall be required to electronically submit the presentation slide show in pdf format to the Contract Administrator.
- E8.4 Training shall be provided in one (1) session for Operation staff and one (1) session for Maintenance staff. Each training session shall be planned to be four (4) hours in duration and shall be performed on separate days. Training sessions shall be provided as a presentation slideshow done over Microsoft Teams. Submit one (1) electronic copy of each presentation slide show in pdf format to the Contract Administrator after completion of each training session to be distributed to attendees. Pdf pages shall be setup with two (2) slides on one (1) page.
- E8.5 Training shall be completed after Total Performance has been achieved. The Contract shall not be considered complete until the training has been provided.

## **E9. Manufacturer Warranty Walkthrough and Deficiency Corrections**

- E9.1 Notwithstanding the terms of C13.2, the manufacturer warranty period shall commence from the earlier of the following:
- (a) Eighteen (18) months starting from the start date of the Shipment 2 from the factory, or
  - (b) Twelve (12) months starting from the date of Total Performance achieved.
- E9.2 Notwithstanding the terms of C13.6 and C13.7, the manufacturer parts warranty shall at minimum cover the following items found to be defective during the warranty period:
- (a) Bearings (Pump & Motor)
  - (b) Wear Rings
  - (c) Mechanical Seals
  - (d) Pump Impellers
  - (e) Power & Control Cabling along with Cabling Accessories
  - (f) Instruments and/or Sensors.
- E9.3 Notwithstanding the terms of C13.6 and C13.7, the manufacturer pump warranty shall at minimum cover the following items found to be defective during the warranty period:
- (a) Pump Enclosure
  - (b) Electric Motor
  - (c) Mechanical Pumps
  - (d) Pump Shaft
- E9.4 On-Site Warranty Walkthrough:
- (a) Prior to the Warranty expiring, the Contractor will be required to attend an on-site warranty walkthrough approximately one (1) month prior to the end of the warranty period. The Contract Administrator will provide a minimum of ten (10) Business Days notice. The City will arrange for five (5) installed pumps to be operated and tested for the Contractor to witness. It is planned for the warranty inspection site visit to occur over one (1) full business day.
  - (b) The Contractor shall provide the services of a qualified technical representative to be present at the warranty walkthrough under this Contract to perform the following:

- (i) Inspect the pumping equipment (if available) to ensure there are no visible deficiencies.
    - (ii) Witness operation of the pumps.
    - (iii) Verify if any instrument alarm and trip signals appear at each pump control panel and/or DCS system.
    - (iv) Check for unusual vibration and/or noises.
    - (v) Promptly correct any deficiencies with the pumping equipment at the Contractor's expense to the satisfaction of the Contract Administrator.
  - (c) The City will perform the following services during the walkthrough:
    - (i) Conduct and document motor current draw, rotation and speed tests.
    - (ii) Document instrument readings for control philosophy and DCS monitoring.
- E9.5 The City will prepare and submit a pump inspection report prior to the on-site warranty inspection site visit. The City will arrange (without the Contractor representatives on site) to temporarily remove all five (5) pump installations to document pictures of pump exterior, instruments and seals that would be included as part of the pump inspection report. The preliminary warranty inspection report will be submitted to the Contractor no later than two (2) business days prior to the warranty site visit.
- E9.6 The City will prepare and submit a warranty walkthrough report after the on-site warranty walkthrough site visit has been completed. The warranty walkthrough report will include a summary of the items investigated, a pass/fail parts checklist, along with a list of deficiencies and corrective measures to be performed. The warranty walkthrough report will be submitted to the Contractor no later than five (5) business days after completion of the warranty walkthrough site visit.
- E9.7 Deficiency Corrections:
  - (a) The Contractor shall provide the services of a qualified technical representative to correct all manufacturer deficiencies found during the warranty site visit along with any additional deficiencies found prior to the warranty period lapsing.
  - (b) If the deficiency corrections are required to be sent to a shop, the shop shall be local to Winnipeg. The City will arrange transportation to the shop location.
- E9.8 The Contractor shall electronically submit a signed and dated Deficiency Corrective Letter listing all deficiencies found and that each deficiency has been corrected to the best of the Contractor's knowledge. The Deficiency Correction Letter shall be received prior to project close-out.
- E9.9 The price for "On-site Warranty Inspection" and "Deficiency Corrections" shall cover all costs associated with these items of work, including travel expenses, accommodations, meals and wages.

**APPENDIX A – REFERENCE DRAWINGS**

## APPENDIX B – SITE INFORMATION

## APPENDIX C – UV PUMP CONTROL NARRATIVE

## APPENDIX D – PUMPING DESIGN & OPERATING DESCRIPTION

## APPENDIX E – WASTEWATER SERVICES CONTRACTOR ENVIRONMENTAL PRESERVATION AND COMPLIANCE PACKAGE

## APPENDIX F – SITE INVESTIGATIONS COVID-19 SELF-SCREENING QUESTIONNAIRE