



THE CITY OF WINNIPEG

TENDER

TENDER NO. 385-2019

SHOAL LAKE AQUEDUCT – SUPPLY AND INSTALLATION OF STOP LOGS

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 SHOAL LAKE AQUEDUCT – SUPPLY AND INSTALLATION OF STOP LOGS

B2. SUBMISSION DEADLINE

- B2.1 The Submission Deadline is 12:00 noon Winnipeg time, May 14, 2019.
- B2.2 Bids determined by the Manager of Materials to have been received later than the Submission Deadline will not be accepted and will be returned upon request.
- B2.3 The Contract Administrator or the Manager of Materials may extend the Submission Deadline by issuing an addendum at any time prior to the time and date specified in B2.1.

B3. SITE INVESTIGATION

- B3.1 Further to C3.1, the Contract Administrator or an authorized representative will be available at the Site at 9:00 A.M. on May 1, 2019 to provide Bidders access to the Site. Bidders are requested to meet at the following sites, in order;
- (a) Mile 73.69 Site, McMunn Rd 77E, 0.8 kilometres south of the Trans Canada Highway, at 9:00 AM.
 - (b) Mile 64.14 Site, Whitemouth River Road E at Railway Bridge Road, Hadashville, at approximately 9:45 AM.
 - (c) Mile 17.05, PR 206, 800metres north of Centreline Road near Dugald Manitoba, at approximately 11:00 AM.
- B3.2 The Bidder is advised that site access into structures is restricted and site viewing is limited. The City will provide access into the boathouses to assess 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 Although attendance at the Site Investigations is not mandatory, the City strongly suggests that Proponents attend.
- B3.5 Proponents are required to register for the Site Investigations at least 48 hours In advance by contacting the Contract Administrator identified in D4.
- B3.6 Bidders registered for the site investigations must provide the Project Manager identified in D4 with a Public Safety Verification search obtained not earlier than one (1) year prior to the site investigations.
- (a) The Public Safety Verification check can be obtained from Sterling Talent Solutions. Proponents will need to setup a Sterling Talent Solutions account prior to requesting individual background checks. This process should be done 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 up to 48 hours to complete. Refer to PART F - Security Clearance for further information.

B4. ENQUIRIES

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

- B4.2 If the Bidder finds errors, discrepancies or omissions in the Tender, or is unsure of the meaning or intent of any provision therein, the Bidder shall notify the Contract Administrator of the error, discrepancy or omission, or request a clarification as to the meaning or intent of the provision at least five (5) Business Days prior to the Submission Deadline.
- B4.3 Responses to enquiries which, in the sole judgment of the Contract Administrator, require a correction to or a clarification of the Tender will be provided by the Contract Administrator to all Bidders by issuing an addendum.
- B4.4 Responses to enquiries which, in the sole judgment of the Contract Administrator, do not require a correction to or a clarification of the Tender will be provided by the Contract Administrator only to the Bidder who made the enquiry.
- B4.5 The Bidder shall not be entitled to rely on any response or interpretation received pursuant to B4 unless that response or interpretation is provided by the Contract Administrator in writing.

B5. CONFIDENTIALITY

- B5.1 Information provided to a Bidder by the City or acquired by a Bidder by way of further enquiries or through investigation is confidential. Such information shall not be used or disclosed in any way without the prior written authorization of the Contract Administrator. The use and disclosure of the confidential information shall not apply to information which:
- (a) was known to the Bidder before receipt hereof; or
 - (b) becomes publicly known other than through the Bidder; or
 - (c) is disclosed pursuant to the requirements of a governmental authority or judicial order.
- B5.2 The Bidder shall not make any statement of fact or opinion regarding any aspect of the Tender to the media or any member of the public without the prior written authorization of the Contract Administrator.

B6. ADDENDA

- B6.1 The Contract Administrator may, at any time prior to the Submission Deadline, issue addenda correcting errors, discrepancies or omissions in the Tender, or clarifying the meaning or intent of any provision therein.
- B6.2 The Contract Administrator will issue each addendum at least two (2) Business Days prior to the Submission Deadline, or provide at least two (2) Business Days by extending the Submission Deadline.
- B6.3 Addenda will be available on the Bid Opportunities page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/bidopp.asp>
- B6.4 The Bidder is responsible for ensuring that he/she has received all addenda and is advised to check the Materials Management Division website for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.
- B6.5 The Bidder shall acknowledge receipt of each addendum in Paragraph 10 of Form A: Bid. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.
- B6.6 Notwithstanding B4, enquiries related to an Addendum may be directed to the Contract Administrator indicated in D4.

B7. SUBSTITUTES

- B7.1 The Work is based on the Plant, Materials and methods specified in the Tender.
- B7.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.

- B7.3 Requests for approval of a substitute will not be considered unless received in writing by the Contract Administrator at least five (5) Business Days prior to the Submission Deadline.
- B7.4 The Bidder shall ensure that any and all requests for approval of a substitute:
- (a) provide sufficient information and details to enable the Contract Administrator to determine the acceptability of the Plant, Material or method as either an approved equal or alternative;
 - (b) identify any and all changes required in the applicable Work, and all changes to any other Work, which would become necessary to accommodate the substitute;
 - (c) identify any anticipated cost or time savings that may be associated with the substitute;
 - (d) certify that, in the case of a request for approval as an approved equal, the substitute will fully perform the functions called for by the general design, be of equal or superior substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance; 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 his/her sole discretion grant approval for the use of a substitute as an “approved equal” or as an “approved alternative”, or may refuse to grant approval of the substitute.
- B7.6 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, to the Bidder who requested approval of the substitute.
- B7.6.1 The Contract Administrator will issue an Addendum, disclosing the approved materials, equipment, methods and products to all potential Bidders. The Bidder requesting and obtaining the approval of a substitute shall be responsible for disseminating information regarding the approval to any person or persons he/she wishes to inform.
- B7.7 If the Contract Administrator approves a substitute as an “approved equal”, any Bidder may use the approved equal in place of the specified item.
- B7.8 If the Contract Administrator approves a substitute as an “approved alternative”, any Bidder bidding that approved alternative may base his/her Total Bid Price upon the specified item but may also indicate an alternative price based upon the approved alternative. Such alternatives will be evaluated in accordance with 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;
 - (b) Form B: Prices; and
 - (c) Form G1: Bid Bond and Agreement to Bond.
- B8.2 Further to B8.1, the Bidder should include the written correspondence from the Contract Administrator approving a substitute in accordance with B7.

- B8.3 All components of the Bid shall be fully completed or provided, and submitted by the Bidder no later than the Submission Deadline, with all required entries made clearly and completely.
- B8.4 The Bid shall be submitted enclosed and sealed in an envelope clearly marked with the Tender number and the Bidder's name and address.
- B8.4.1 Samples or other components of the Bid which cannot reasonably be enclosed in the envelope may be packaged separately, but shall be clearly marked with the Tender number, the Bidder's name and address, and an indication that the contents are part of the Bidder's Bid.
- B8.5 Bidders are advised not to include any information/literature except as requested in accordance with B8.1.
- B8.6 Bidders are advised that inclusion of terms and conditions inconsistent with the Tender document, including the General Conditions, will be evaluated in accordance with B18.1(a).
- B8.7 Bids submitted by facsimile transmission (fax) or internet electronic mail (e-mail) will not be accepted.
- B8.8 Bids shall be submitted to:
The City of Winnipeg
Corporate Finance Department
Materials Management Division
185 King Street, Main Floor
Winnipeg MB R3B 1J1

B9. BID

- B9.1 The Bidder shall complete Form A: Bid, making all required entries.
- B9.2 Paragraph 2 of Form A: Bid shall be completed in accordance with the following requirements:
- (a) if the Bidder is a sole proprietor carrying on business in his/her own name, his/her name shall be inserted;
 - (b) if the Bidder is a partnership, the full name of the partnership shall be inserted;
 - (c) if the Bidder is a corporation, the full name of the corporation shall be inserted; and
 - (d) if the Bidder is carrying on business under a name other than his/her own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.
- B9.2.1 If a Bid is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B9.2.
- B9.3 In Paragraph 3 of Form A: Bid, the Bidder shall identify a contact person who is authorized to represent the Bidder for purposes of the Bid.
- B9.4 Paragraph 13 of Form A: Bid shall be signed in accordance with the following requirements:
- (a) if the Bidder is a sole proprietor carrying on business in his/her own name, it shall be signed by the Bidder;
 - (b) if the Bidder is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;
 - (c) if the Bidder is a corporation, it shall be signed by its duly authorized officer or officers and the corporate seal, if the corporation has one, should be affixed; and
 - (d) if the Bidder is carrying on business under a name other than his/her own, it shall be signed by the registered owner of the business name, or by the registered owner's authorized officials if the owner is a partnership or a corporation.

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

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

B10. PRICES

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

B10.1.1 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 D25. Any such costs shall be determined in accordance with D25.

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).

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) Corix Water Products
 - (i) Provided product information and budgetary cost estimates for material supply.
- (b) Corix Control Solutions
 - (i) Provided product information and budgetary cost estimates for material supply.
- (c) Fontaine Aquanox
 - (i) Provided product information and budgetary cost estimates for material supply.
- (d) Armtec
 - (i) Provided product information and budgetary cost estimates for material supply.

B12. CONFLICT OF INTEREST AND GOOD FAITH

B12.1 Bidders, by responding to this Tender, declare that no Conflict of Interest currently exists, or is reasonably expected to exist in the future.

B12.2 Conflict of Interest means any situation or circumstance where a Bidder or employee of the Bidder proposed for the Work has:

- (a) other commitments;
- (b) relationships;
- (c) financial interests; or
- (d) involvement in ongoing litigation;

that could or would be seen to:

- (i) exercise an improper influence over the objective, unbiased and impartial exercise of the independent judgment of the City with respect to the evaluation of Bids or award of the Contract; or
- (ii) compromise, impair or be incompatible with the effective performance of a Bidder's obligations under the Contract;
- (e) has contractual or other obligations to the City that could or would be seen to have been compromised or impaired as a result of its participation in the Tender process or the Work; or
- (f) has knowledge of confidential information (other than confidential information disclosed by the City in the normal course of the Tender process) of strategic and/or material relevance to the Tender process or to the Work that is not available to other bidders and that could or would be seen to give that Bidder an unfair competitive advantage.

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

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

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

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

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

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

B13. QUALIFICATION

B13.1 The Bidder shall:

- (a) undertake to be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba;
- (b) be financially capable of carrying out the terms of the Contract; and

- (c) have all the necessary experience, capital, organization, and equipment to perform the Work in strict accordance with the terms and provisions of the Contract.

B13.2 The Bidder and any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

- (a) be responsible and not be suspended, debarred or in default of any obligations to the City. A list of suspended or debarred individuals and companies is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <https://winnipeg.ca/finance/findata/matmgt/listing/debar.pdf>

B13.3 The Bidder and/or any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

- (a) have successfully carried out work similar in nature, scope and value to the Work;
- (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); and
- (d) upon request of the Contract Administrator, provide the Security Clearances in accordance with PART F - Security Clearance.

B13.4 Further to B13.3(c), the Bidder shall, within five (5) Business Days of a request by the Contract Administrator, provide proof satisfactory to the Contract Administrator that the Bidder/Subcontractor has a workplace safety and health program meeting the requirements of The Workplace Safety and Health Act (Manitoba), by providing:

- (a) Written confirmation of a safety and health certification meeting SAFE Work Manitoba's SAFE Work Certified Standard (e.g., COR™ and SECOR™) in the form of:
 - (i) a copy of their valid Manitoba COR certificate and Letter of Good Standing (or Manitoba equivalency) as issued under the Certificate of Recognition (COR) Program administered by the Construction Safety Association of Manitoba or by the Manitoba Heavy Construction Association's WORKSAFELY™ COR™ Program; or
 - (ii) a copy of their valid Manitoba SECOR™ certificate and Letter of Good Standing (or Manitoba equivalency) as issued under the Small Employer Certificate of Recognition Program (SECOR™) administered by the Construction Safety Association of Manitoba or by the Manitoba Heavy Construction Association's WORKSAFELY™ COR™ Program; or
- (b) a report or letter to that effect from an independent reviewer acceptable to the City. (A list of acceptable reviewers and the review template are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>).

B13.5 The Bidder shall submit, within three (3) Business Days of a request by the Contract Administrator, proof satisfactory to the Contract Administrator of the qualifications of the Bidder and of any proposed Subcontractor.

B13.6 The Bidder shall provide, on the request of the Contract Administrator, full access to any of the Bidder's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Bidder's equipment and facilities are adequate to perform the Work.

B14. BID SECURITY

B14.1 The Bidder shall provide bid security in the form of a bid bond, in the amount of at least ten percent (10%) of the Total Bid Price, and agreement to bond of a company registered to conduct the business of a surety in Manitoba, in the form included in the Bid Submission (Form G1: Bid Bond and Agreement to Bond).

B14.1.1 If the Bidder submits alternative bids, the bid security shall be in the amount of the specified percentage of the highest Total Bid Price submitted.

- B14.1.2 All signatures on bid securities shall be original.
- B14.1.3 The Bidder shall sign the Bid Bond.
- B14.1.4 The Surety shall sign and affix its corporate seal on the Bid Bond and the Agreement to Bond.

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

B15. OPENING OF BIDS AND RELEASE OF INFORMATION

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

B16. IRREVOCABLE BID

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

B17. WITHDRAWAL OF BIDS

- B17.1 A Bidder may withdraw his/her Bid without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.

- B17.1.1 Notwithstanding C23.3, the time and date of receipt of any notice withdrawing a Bid shall be the time and date of receipt as determined by the Manager of Materials.
- B17.1.2 The City will assume that any one of the contact persons named in Paragraph 3 of Form A: Bid or the Bidder's authorized representatives named in Paragraph 13 of Form A: Bid, and only such person, has authority to give notice of withdrawal.
- B17.1.3 If a Bidder gives notice of withdrawal prior to the Submission Deadline, the Manager of Materials will:
- (a) retain the Bid until after the Submission Deadline has elapsed;
 - (b) open the Bid to identify the contact person named in Paragraph 3 of Form A: Bid and the Bidder's authorized representatives named in Paragraph 13 of Form A: Bid; and
 - (c) if the notice has been given by any one of the persons specified in B17.1.3(b), declare the Bid withdrawn.
- B17.2 A Bidder who withdraws his/her Bid after the Submission Deadline but before his/her Bid has been released or has lapsed as provided for in B16.2 shall be liable for such damages as are imposed upon the Bidder by law and subject to such sanctions as the Chief Administrative Officer considers appropriate in the circumstances. The City, in such event, shall be entitled to all rights and remedies available to it at law, including the right to retain the Bidder's bid security.

B18. EVALUATION OF BIDS

- B18.1 Award of the Contract shall be based on the following bid evaluation criteria:
- (a) compliance by the Bidder with the requirements of the Tender, or acceptable deviation there from (pass/fail);
 - (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B13 (pass/fail);
 - (c) Total Bid Price; 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 his/her Bid or in other information required to be submitted, that he/she is qualified.
- B18.4 Further to B18.1(c), the Total Bid Price shall be the sum of the quantities multiplied by the unit prices for each item shown on Form B: Prices.
- B18.4.1 Further to B18.1(a), in the event that a unit price is not provided on Form B: Prices, the City will determine the unit price by dividing the Amount (extended price) by the approximate quantity, for the purposes of evaluation and payment.

B19. AWARD OF CONTRACT

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

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

B19.3 If funding for the Work is provided to the City of Winnipeg by the Government of Manitoba and/or the Government of Canada, Bidders are advised that the terms of D25 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 his/her Bid upon written request to the Contract Administrator.

B19.4.2 If no contract is awarded, then the City of Winnipeg will pay the requested Bidder up to a maximum of five hundred dollars (\$500.00) for each of the requested submissions noted in E6.1, for the preparation and delivery of Shop Drawings. 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 Bid Opportunity.

PART C - GENERAL CONDITIONS

C0. GENERAL CONDITIONS

- C0.1 The *General Conditions for Construction* (Revision 2019 01 15) are applicable to the Work of the Contract.
- C0.1.1 The *General Conditions for Construction* are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at http://www.winnipeg.ca/matmgt/gen_cond.stm
- C0.2 A reference in the 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. SCOPE OF WORK

D2.1 The Work to be done under the Contract shall consist of the supply and installation of stop log systems at three locations within the Shoal Lake Aqueduct.

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

(a) Supply and installation of aluminum stop log systems for the following sites within the Shoal Lake Aqueduct:

- (i) Mile 17.05;
- (ii) Mile 64.14; and
- (iii) Mile 73.69.

(b) Installation of portable davit cranes.

D2.3 The funds available for this Contract are \$150,000.

D3. DEFINITIONS

D3.1 When used in this Tender:

- (a) "AWWA" means American Water Works Association;
- (b) "NSF" means NSF International (formally known as National Sanitation Foundation);
- (c) "ASTM" means American Society for Testing and Materials;
- (d) "GWWD" means Greater Winnipeg Water District;
- (e) "AA" means Aluminum Association;
- (f) "AWS" means American Welding Society Code; and
- (g) "CSA" means Canadian Standards Association

D4. CONTRACT ADMINISTRATOR

D4.1 The Contract Administrator is AECOM Canada Ltd., represented by:

Jordan Thompson, P.Eng.
Municipal Engineer

Telephone No. 204-928-9222
Email Address jordan.thompson@aecom.com

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

D5. CONTRACTOR'S SUPERVISOR

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

D6. OWNERSHIP OF INFORMATION, CONFIDENTIALITY AND NON DISCLOSURE

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

D7. NOTICES

- D7.1 Except as provided for in C23.2.2, all notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the Contractor shall be sent to the address or facsimile number identified by the Contractor in Paragraph 2 of Form A: Bid.
- D7.2 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the City, except as expressly otherwise required in D7.3, D7.4 or elsewhere in the Contract, shall be sent to the attention of the Contract Administrator identified in D4.
- D7.3 Notwithstanding C21., all notices of appeal to the Chief Administrative Officer shall be sent to the attention of the Chief Financial Officer at the following:
- The City of Winnipeg
Attn: Chief Financial Officer
Office of the Chief Administrative Officer
Susan A. Thompson Building
2nd Floor, 510 Main Street
Winnipeg MB R3B 1B9
- D7.4 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications required to be submitted or returned to the City Solicitor shall be sent to the following facsimile number:
- The City of Winnipeg
Legal Services Department
Attn: Director of Legal Services
Facsimile No.: 204 947-9155
- D7.5 Bids Submissions must not be submitted to the above facsimile number. Bids must be submitted in accordance with B8.**

D8. FURNISHING OF DOCUMENTS

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

SUBMISSIONS

D9. AUTHORITY TO CARRY ON BUSINESS

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

D10. SAFE WORK PLAN

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

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

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

D11. INSURANCE

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

- (a) commercial general liability insurance, in the amount of at least two million dollars (\$2,000,000.00) inclusive, with The City of Winnipeg added as an additional insured, with a cross-liability clause, such liability policy to also contain contractual liability, unlicensed motor vehicle liability, non-owned automobile liability and products and completed operations, to remain in place at all times during the performance of the Work and throughout the warranty period;
- (b) if applicable, Automobile Liability Insurance covering all motor vehicles, owned and operated and used or to be used by the Contractor directly or indirectly in the performance of the Work. The Limit of Liability shall not be less than \$2,000,000 inclusive for loss or damage including personal injuries and death resulting from any one accident or occurrence.
- (c) all risks course of construction insurance in the amount of one hundred percent (100%) of the total Contract Price, written in the name of the Contractor and The City of Winnipeg, at all times during the performance of the Work and until the date of Total Performance.

D11.2 During the transportation of equipment, material and supplies via the GWWD Railway, the Contractor is to provide and maintain the following insurance coverage:

- (a) Commercial general liability insurance, in the amount of at least two millions dollars (\$2,000,000) inclusive, with The City of Winnipeg to be added as an additional insured, and including a cross liability clause and employers liability and reference to specify transportation via railway;
- (b) all risk property policy carrying adequate limits to cover all machinery, equipment, supplies and/or materials transported via railway;
- (c) Property in transit for the full value of machinery, equipment and supplies while being transported via railway; and

- (d) A signed waiver of liability and assumption of risk agreement prior to the transporting of any supplies, equipment, machinery and materials. The GWWD Railway Waiver Form is included in Appendix D.

D11.3 Deductibles shall be borne by the Contractor.

D11.4 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.

D11.5 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.

D12. CONTRACT SECURITY

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

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

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

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

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

D13. SUBCONTRACTOR LIST

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

D13.2 The Contractor shall provide the Contract Administrator with name of the stop log manufacturer proposed for the work within two (2) Business Days of a request by the Contract Administrator.

D14. DETAILED WORK SCHEDULE

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

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

- (a) a Gantt chart for the Work based on the critical path method schedule; all acceptable to the Contract Administrator.

- D14.3 Further to D14.2(a), the critical path method 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) commencement (each location);
 - (b) site measurements and confirmation of design conditions (each location);
 - (c) cleaning and prep work (each location);
 - (d) installation of frame guides and stop logs (each location);
 - (e) field testing (each location);
 - (f) completion of all Work within the Aqueduct;
 - (g) demobilization (each location);
 - (h) Substantial Performance; and
 - (i) Total Performance.
- D14.4 Further to D14.2(a), 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.

SCHEDULE OF WORK

D15. COMMENCEMENT

- D15.1 The Contractor shall not commence any Work until he/she is in receipt of a letter of intent from the Award Authority authorizing the commencement of the Work.
- D15.2 The Contractor shall not commence any Work on the Site until:
- (a) the Contract Administrator has confirmed receipt and approval of:
 - (i) evidence of authority to carry on business specified in D9;
 - (ii) evidence of the workers compensation coverage specified in C6.15;
 - (iii) the Safe Work Plan specified in D10;
 - (iv) evidence of the insurance specified in D11;
 - (v) the contract security specified in D12;
 - (vi) the Subcontractor list specified in D13; and
 - (vii) the detailed work schedule specified in D14.
 - (b) the Contractor has attended a pre-construction meeting with the Contract Administrator, or the Contract Administrator has waived the requirement for a pre-construction meeting.
 - (c) The Contractor has provided Security Clearances as identified in E2 and PART F - Security Clearance.
 - (d) The Contractor will not be permitted access into the inside of the Aqueduct prior to October 21, 2019 at 9:00 am.
- D15.3 The Contractor shall not commence the Work on the Site before October 1, 2019.
- D15.4 The City intends to award this Contract by June 28, 2019.
- D15.4.1 If the actual date of award is later than the intended date, the dates specified for Commencement, Critical Stages, Substantial Performance, and Total Performance will be adjusted by the difference between the aforementioned intended and actual dates.

D16. CRITICAL STAGES

- D16.1 The Contractor shall achieve critical stages of the Work in accordance with the following requirements:

- (a) Complete all work within the Aqueduct by November 1, 2019.

D17. SUBSTANTIAL PERFORMANCE

- D17.1 The Contractor shall achieve Substantial Performance by November 1, 2019.
- D17.2 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.
- D17.3 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.

D18. TOTAL PERFORMANCE

- D18.1 The Contractor shall achieve Total Performance by November 14, 2019.
- D18.2 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.
- D18.3 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.

D19. LIQUIDATED DAMAGES

- D19.1 If the Contractor fails to achieve Critical Stages, Substantial Performance or Total Performance in accordance with the Contract by the days fixed herein for same, the Contractor shall pay the City the following amounts per Calendar Day for each and every Calendar Day following the days fixed herein for same during which such failure continues:
- (a) Complete all work within the Aqueduct - five thousand dollars (\$5,000);
 - (b) Substantial Performance – two thousand dollars (\$2,000); and
 - (c) Total Performance – five hundred dollars (\$500).
- D19.2 The amounts specified for liquidated damages in D19.1 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.
- D19.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

CONTROL OF WORK

D20. JOB MEETINGS

- D20.1 Regular weekly job meetings will be held at the Site. These meetings shall be attended by a minimum of one representative of the Contract Administrator, one representative of the City and one representative of the Contractor. Each representative shall be a responsible person capable of expressing the position of the Contract Administrator, the City and the Contractor respectively on any matter discussed at the meeting including the Work schedule and the need to make any revisions to the Work schedule. The progress of the Work will be reviewed at each of these meetings.

D20.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he/she deems it necessary.

D21. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)

D21.1 Further to C6.24, the Contractor shall be the Prime Contractor and shall serve as, and have the duties of the Prime Contractor in accordance with The Workplace Safety and Health Act (Manitoba).

D22. THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA) – QUALIFICATIONS

D22.1 Further to B13.4, the Contractor/Subcontractor must, throughout the term of the Contract, have a Workplace Safety and Health Program meeting the requirements of The Workplace Safety and Health Act (Manitoba). At any time during the term of the Contract, the City may, at its sole discretion and acting reasonably, require updated proof of compliance, as set out in B13.4.

MEASUREMENT AND PAYMENT

D23. PAYMENT

D23.1 Further to C12, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

WARRANTY

D24. WARRANTY

D24.1 Warranty is as stated in C13.

THIRD PARTY AGREEMENTS

D25. FUNDING AND/OR CONTRIBUTION AGREEMENT OBLIGATIONS

D25.1 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.

D25.2 Further to D25.1, in the event that the obligations in D25 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.

D25.3 For the purposes of D25:

- (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.

D25.4 Modified Insurance Requirements

D25.4.1 If not already required under the insurance requirements identified in D11, the Contractor will be required to provide wrap-up liability insurance in an amount of no less than two million dollars (\$2,000,000) inclusive per occurrence. Such policy will be written in the joint names of the City, Contractor, Consultants and all sub-contractors and sub-consultants and include twelve (12) months completed operations. The Government of Manitoba and its Ministers, officers, employees, and agents shall be added as additional insureds.

- D25.4.2 If not already required under the insurance requirements identified in D11, the Contractor will be required to provide builders' risk insurance (including boiler and machinery insurance, as applicable) providing all risks coverage at full replacement cost, or such lower level of insurance that the City may identify on a case-by-case basis, such as an installation floater.
- D25.4.3 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.
- D25.4.4 Further to D11.4, 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.
- D25.4.5 All policies must be taken out with insurers licensed to carry on business in the Province of Manitoba.
- D25.5 Indemnification By Contractor
- D25.5.1 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.
- D25.6 Records Retention and Audits
- D25.6.1 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.
- D25.6.2 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 D25.6.1 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.
- D25.7 Other Obligations
- D25.7.1 The Contractor consents to the City providing a copy of the Contract to the Government of Manitoba and/or the Government of Canada upon request from either entity.
- D25.7.2 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.

D25.7.3 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.

D25.7.4 The Contractor shall properly account for the Work provided under this Contract and payment received in this respect, prepared in accordance with generally accepted accounting principles in effect in Canada, including those principles and standards approved or recommended from time-to-time by the Chartered Professional Accountants of Canada or the Public Sector Accounting Board, as applicable, applied on a consistent basis.

FORM H1: PERFORMANCE BOND
(See D12)

KNOW ALL MEN BY THESE PRESENTS THAT

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

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

_____ dollars (\$_____)

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

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

TENDER NO. 385-2019

SHOAL LAKE AQUEDUCT – SUPPLY AND INSTALLATION OF STOP LOGS

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

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

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

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

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

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

_____ day of _____, 20____ .

SIGNED AND SEALED
in the presence of:

(Witness as to Principal if no seal)

(Name of Principal)

Per: _____ (Seal)

Per: _____

(Name of Surety)

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

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

KNOW ALL MEN BY THESE PRESENTS THAT

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

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

_____ dollars (\$_____)

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

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

TENDER NO. 385-2019

SHOAL LAKE AQUEDUCT – SUPPLY AND INSTALLATION OF STOP LOGS

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 and twenty (120) days after such claimant did or performed the last of the work, labour or service, or furnished the last of the materials for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished, or for whom the work, labour or service was done or performed. Such notice shall be served by mailing the same by registered mail to the Principal, and Surety, at any place where an office is regularly maintained for the transaction of business, or served in any manner in which legal process may be served in the Province of Manitoba;

- (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 its entirety, whether or not specifically listed on Form B: Prices, shall apply to the Work.
- E1.2.1 *The City of Winnipeg Standard Construction Specifications* is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/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:

<u>Drawing No.</u>	<u>Drawing Name/Title</u>
1-0701A-D00005-001	Location Plan
1-0703A-C00001-001	Mile 17.05 Site Plan
1-0712A-C00001-001	Mile 64.14 Site Plan & Existing Conditions
1-0714A-C00001-001	Mile 73.69 Site Plan & Existing Conditions
1-0701A-C00006-001	Typical Details Mile 17.05, Mile 64.14 & Mile 73.69

GENERAL REQUIREMENTS

E2. SITE SECURITY AND PROTECTION

- E2.1 Description
- (a) This specification covers on site security requirements during construction.
- E2.2 Site Security
- (a) All personnel on site are required to obtain a Criminal Record Search Certificate and Public Safety Verification Check, as outlined in PART F - Security Clearance. The Contractor shall submit copies of the Criminal Record Search Certificates to the Contract Administrator identified in D4.
- (b) The City of Winnipeg will provide two (2) security keys to the Contractor for access to the M17.05, M64.14 and M73.69 boathouses, upon receipt of a ten thousand dollar (\$10,000) certified security deposit cheque. The cheque will be returned upon return of the security key. The Contractor shall provide the name and contact information for the person in charge and responsible for security on site. In the event a deposit is not provided, the Contract Administrator will withhold ten thousand dollars (\$10,000) from progress estimates until the keys are returned.
- (c) The City of Winnipeg will provide a detailed shutdown and communication protocol to the Contractor, a minimum of fourteen (14) calendar days in advance of the commencement of the shutdown. This will include contact persons and phone numbers. This Protocol will supplement basic information provided below.

- (d) City forces will supervise entry into the boathouses and Aqueduct, and provide communication with City communication co-ordinator. In the event that City forces are unavailable or not on site, the Contractor shall;
 - (i) Advise the City of Winnipeg communication coordinator as to the status of the site security, and in particular when Contractor staff leave the Site. The Contractor is not required to provide security services when not on site.
 - (ii) Doors to all boathouses are alarmed. Contact City communication coordinator prior to opening doors, and advise Operator when doors are closed and locked at the end of the workday, or when vacating site temporarily.
 - (iii) When personnel and crews are not within visual range of the Site doors shall be closed and locked.
- (e) The Contractor shall notify the Contract Administrator a minimum of 2 Business Days in advance of requiring access into the boathouses.
- (f) The Site at Mile 64.14 does not have a boathouse superstructure. Openings to the Aqueduct and the stop log slots are covered with precast concrete slabs. Prior to Work inside the Aqueduct, the City will remove the stop log precast covers, including the stop log opening, and the main Aqueduct opening. The Contractor shall install temporary covers over these openings consisting of a minimum of 20 millimetre construction grade plywood and support framing. The plywood shall be securely affixed to the Aqueduct Structure with a minimum of four (4) 12 mm expansion anchors, or other approved device. The Contractor shall place and affix these covers to the Aqueduct slab any time they are not on Site. The Contractor shall erect a temporary safety railing around all openings on Site. On completion of all Work, Contractor shall remove railings and temporary structures, and City will replace the precast slabs. Provide a minimum of 24 hour notice for having slabs removed or replaced.

E2.3 Site Safety Measures

- (a) The work within the Aqueduct at Mile 17.05, Mile 64.14 and Mile 73.79 is immediately adjacent to the Aqueduct river siphons.
- (b) Prior to commencing work inside the Aqueduct, the Contractor shall install a safety barricade with reflective "danger" signs securely positioned within the Aqueduct, downstream of the boathouse, to prevent inadvertent falling into the siphon, which is full of water.

E2.4 Emergency Response

- (a) The City of Winnipeg has specific emergency response plans when working within the Shoal Lake Aqueduct. These are included in Appendix A.
- (b) The following lists appropriate Emergency Response Contacts for the Site;
 - (i) Fire, Rescue and Paramedics – City of Winnipeg, 911. If Provincial 911 is reached ask to be transferred to City of Winnipeg 911.
 - (ii) Police – RCMP, Provincial 911

E2.5 Photographs

- (a) All site photographs required for construction documentation shall be approved by a City of Winnipeg Water Services Division representative, as identified by the Contract Administrator.

E3. CONDITION, PROTECTION OF AND ACCESS TO SHOAL LAKE AQUEDUCT AND BOATHOUSES

E3.1 Description

- E3.1.1 This Section details the condition, protection, and access to the Shoal Lake Aqueduct and associated boathouses, including operating constraints for all work to be carried out in

close proximity to the Shoal Lake Aqueduct. Close proximity shall be deemed to be any construction activity within a 5 m offset from the centreline of the Aqueduct.

E3.2 Condition of the Shoal Lake Aqueduct and Boathouses

- E3.2.1 The Shoal Lake Aqueduct was constructed between 1914 and 1918 and is composed of an unreinforced concrete arch supported on a concrete invert section. The condition of the Aqueduct at the locations of the Work is considered to be good, based on visual inspections.
- E3.2.2 The Boathouses at Mile 17.05 and at Mile 73.69 are in fair condition. Prior to starting Work at Site, the Contractor shall document any noted concerns with respect to the work areas and provide to the Contract Administrator.
- E3.2.3 There is no boathouse superstructure at Mile 64.14. The Boathouse openings are covered with precast concrete slabs.

E3.3 Access and Protection of the Shoal Lake Aqueduct and Boathouses

- E3.3.1 The Shoal Lake Aqueduct (Aqueduct) is a critical component of the City of Winnipeg Water Supply and shall be treated with the utmost caution. Work around the Aqueduct shall be well planned and executed to ensure that the Aqueduct is not subjected to construction related loads, including excessive vibrations.
- E3.3.2 Equipment shall only be permitted to cross the Aqueduct at existing road crossings and bridges.
- E3.3.3 Employees of the Contractor or any Subcontractor that fail to comply with the conditions for working in close proximity to the Aqueduct and Yard Piping shall be promptly removed from the Site.

E4. USE OF GWWD RAILWAY

E4.1 Transportation of Equipment and Materials for Mile 73.69 Site.

- (a) The Site at Mile 73.69 in McMunn Manitoba is only accessible via the GWWD Railway, via a steel girder bridge across the Birch River. The rail ties are open.
- (b) For the M73.69 Site, the GWWD Railway can assist the Contractor by providing one (1) mobilization and one (1) demobilization move to transport tools and materials from McMunn Municipal Road to the Mile 73.69 Site. The GWWD Railway assumes no risk for the transportation of these goods and the Contractor must provide evidence of insurance as per D11.2(b) and D11.2(c) and a signed Waiver as per D11.2(d) to utilize the use of the GWWD Railway. The GWWD Railway Waiver Form is included in Appendix D.
- (c) Bidders are advised that emergency railway services will take precedence over material and equipment deliveries. Neither the City, nor the Contract Administrator shall be held liable for failing to provide rail transportation in any event.
- (d) The Contractor shall ensure that all equipment, vehicles, personnel, and materials are kept off the railway and away from the trackbed, unless instructed otherwise by the Contract Administrator. The Contractor shall provide all labour and equipment necessary for loading and unloading equipment and materials including all equipment necessary to tie down loads.

E4.2 Crossing the GWWD Bridge on Foot at Mile 73.69

- (a) Personnel will be permitted to cross the bridge on foot to access the Site. The Contractor shall affix 20 millimetre plywood, screwed to the rail ties, between the two inner safety rails. The Contractor shall walk on this platform between the two inner safety rails at all times. Plywood shall be removed on completion of the Work

E5. ENVIRONMENTAL PROTECTION

- E5.1 The Contractor shall be aware that the Aqueduct is for potable water supply and no contamination by fuel, chemicals, etc. shall be permitted at any time. Fuels or chemicals shall not be stored within 30 metres of the Aqueduct.
- E5.2 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.
- E5.3 Submittals
- (a) Environmental protection plan including:
 - (i) Names of persons responsible for ensuring adherence to Environmental Protection Plan.
 - (ii) Names and qualifications of persons responsible for manifesting hazardous waste to be removed from site.
 - (iii) Names and qualifications of persons responsible for training site personnel.
 - (iv) Descriptions of environmental protection personnel training program.
 - (b) The Contractor is required to prepare and submit the following to the Contract Administrator prior to commencing construction, if applicable:
 - (i) Work area plan showing proposed activity in each portion of area and identifying areas of limited use or non-use. Plan to include measures for marking limits of use areas including methods for protection of features to be preserved within authorized work areas.
 - (ii) Spill Control Plan: including procedures, instructions, and reports to be used in event of unforeseen spill of regulated substance.
 - (iii) Construction Waste Management Plan describing onsite waste management, disposal, reuse or materials, recycling and staff training.
 - (iv) Hazardous Material Spill Management Plan describing management, reporting, emergency response and contact numbers, and staff training.
- E5.4 The Contractor is advised that as a minimum, the following Acts, Regulations, and By-laws apply to the Work:
- (a) Workplace Hazardous Material Information System (Hazardous Product Act and Canada Labour Code);
 - (b) Canadian Environmental Protection Act;
 - (c) Canadian Environmental Assessment Act;
 - (d) Transportation of Dangerous Goods Act;
 - (e) Manitoba Environmental Act;
 - (f) The Endangered Species Act E111;
 - (g) The Manitoba Nuisance Act N120;
 - (h) The Public Health Act c.P210;
 - (i) Manitoba Dangerous Goods, Handling, and Transportation Act;
 - (j) Fisheries Act;
 - (k) The Workplace Safety and Health Act W210; and
 - (l) Current applicable associated regulations.
- E5.5 The Contractor is advised that the following environmental protection measures apply to the Work.
- E5.5.1 Materials Handling and Storage
- (a) Construction materials shall not be stored within five (5) metres of existing pipe centerlines.

E5.5.2 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 100 metres from the Aqueduct or a watercourse.
- (h) The area around storage sites and fuel lines shall be distinctly marked and kept clear of snow and debris to allow for routine inspection and leak detection.
- (i) 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.
- (j) Where stationary equipment is required to be erected on or within the Aqueduct, equipment shall be staged on impermeable containment membrane or containment pans of sufficient volume to contain all hazardous fuels and liquids plus a safety factor of 50 percent.
- (k) Fueling of stationary equipment shall be completed with portable tanks containing only enough fuel to fill equipment. Use of fuel trucks on or within the Aqueduct is prohibited.

E5.5.3 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 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) Equipment shall not be cleaned near watercourses; contaminated water from onshore cleaning operations shall not be permitted to enter watercourses.

E5.5.4 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.

E5.5.5 Fires

- (a) Fires and burning of rubbish on site shall not be permitted.

E5.5.6 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 and Manitoba Environment, immediately after occurrence of the environmental accident, by calling the 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
 - request assistance as required by magnitude of accident (Manitoba Environment 24-hour Spill Response Line (204) 945-4888, Police (RCMP), Fire Department (City of Winnipeg), 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
 - 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
 - dike spill material with dry, inert sorbent material or dry clay soil or sand
 - prevent spill material from entering waterways and utilities by diking
 - prevent spill material from entering Aqueduct manholes and other openings by covering with rubber spill mats or diking
 - (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.

E5.5.7 Controlled Products

- (a) Materials classified as "Controlled Products" under Regulation 52/88, "Workplace Hazardous Materials Information System", including amendments, are prohibited inside the Aqueduct, unless the material will be directly employed in the Work.

E6. EXPEDITED SHOP DRAWINGS

E6.1 Further to CW 1110, in order to expedite Shop Drawings with critical timeliness, the Lowest Evaluated 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) Stop Logs and Appurtenances as indicated in E7.

E6.1.1 Schedule to submit Shop Drawing listed in E6.1 within five (5) Business Day of a request as indicated in CW 1110 or receipt of Notice of Award in accordance with B19, whichever is earlier.

E6.2 Measurement and Payment

- (a) If Award is made to the lowest responsive Bidder, then the provision of Shop Drawings will be considered incidental to the Work and no separate payment will be made. If no contract is awarded payment for Shop Drawings prepared will be paid in accordance with B19.4.2.

E7. STOP LOGS AND APPURTENANCES

E7.1 Description

- (a) This specification covers the supply and installation of aluminum stop logs and all appurtenances.

E7.2 References

- (a) Aluminum Association (AA):
 - (i) ASM35: Aluminum Construction Manual.
 - (ii) H35.1: Aluminum Alloy and Temper Designation.
- (b) American Society for Testing and Materials International (ASTM):
 - (i) A240: Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications
 - (ii) A276: Standard Specifications for Stainless Steel Bars and Shapes.
 - (iii) D2000: Standard Classification System for Rubber Products in Automotive Applications.
 - (iv) D4020: Standard Specification for Ultra-High-Molecular-Weight Polyethylene Molding and Extrusion Materials
- (c) American Welding Society Code (AWS):
 - (i) D1.2: Structural Welding Code – Aluminum
 - (ii) D1.6: Structural Welding Code – Stainless Steel
- (d) Canadian Standards Association (CSA):
 - (i) Welding Procedure Specifications.

E7.3 Shop Drawings

- (a) Submit the following shop drawings in accordance with the City of Winnipeg's Standard Construction Specification CW 1110:
 - (i) Certified shop and erection drawings. Contractor shall submit electronic files of the proposed equipment in the capacity, size, and arrangement as indicated and specified.
 - (ii) Data for stop log characteristics and performance.
 - (iii) Complete description of all materials, material thicknesses of all components.
 - (iv) Maximum bending stress and deflection of the stop logs under design head specified and indicated.
 - (v) Installation drawings showing the details required for installation, dimensions, clearances and anchor bolt locations
 - (vi) Shop drawing data for accessory items.
 - (vii) Certified setting plans, with tolerances, for anchor bolts.
 - (viii) Manufacturer's literature as needed to supplement certified data.
 - (ix) Operating and maintenance instructions and parts lists.
 - (x) Shop and field inspection reports.
 - (xi) Qualifications of field service engineer.
 - (xii) Recommendations for short and long-term storage.
 - (xiii) Field testing procedures and set up.

- (xiv) Special tools.
- (xv) The latest ISO 9001 series certification or quality system plan.

E7.4 Products

E7.4.1 System Description

- (a) Mile 17.05
 - (i) Stop log span: 2667 mm.
 - (ii) Minimum height of stop log assembly: 2250 mm.
 - (iii) Guide frames: 2845 mm high.
 - (iv) Minimum log height: 45 mm, maximum log height 610 mm. A single log of lesser height permitted to achieve minimum assembly height.
 - (v) Maximum log weight: 135 kg per log.
 - (vi) One set of stop logs required.
 - (vii) One set of guide frames required.
 - (viii) One lifting device specially made to install and retrieve the stop logs required.
- (b) Mile 64.14
 - (i) Stop log span: 2273 mm.
 - (ii) Minimum height of stop log assembly: 1918 mm.
 - (iii) Guide frames: 2477 m high.
 - (iv) Minimum log height: 450 mm maximum log height 610 mm. A single log of lesser height permitted to achieve minimum assembly height.
 - (v) Maximum log weight: 135 kg per log.
 - (vi) One set of stop logs required.
 - (vii) One set of guide frames required.
 - (viii) One lifting device specially made to install and retrieve the stop logs required.
- (c) Mile 73.69
 - (i) Stop log span: 2426 mm.
 - (ii) Minimum height of stop log assembly: 2045 mm.
 - (iii) Guide frames: 2604 m high.
 - (iv) Minimum log height: 450 mm maximum log height 610 mm. A single log of lesser height permitted to achieve minimum assembly height.
 - (v) Maximum log weight: 135 kg per log.
 - (vi) One set of stop logs required.
 - (vii) One set of guide frames required.
 - (viii) One lifting device specially made to install and retrieve the stop logs required.

E7.4.2 Manufacturers

- (a) ISE Fontaine Aquanox.
- (b) Hydro Gate.
- (c) Or approved equal in accordance with B7.

E7.4.3 Stop Log Construction

- (a) Provide all stop logs produced by a single manufacturer and designed for installation in the channels and structures as specified and indicated.
- (b) Stop log configuration, dimensions and characteristics: as shown on drawings and as specified herein.
- (c) Leakage rate: not to exceed 1.25 L/min per metre of wetted seal perimeter.
- (d) Provide the stop logs with a continuous resilient seal along the bottom and both sides. Seals on or within the guide frames are not acceptable.

- (e) Stop log height: as indicated and designed to function as specified and indicated when stacked in any order.
- (f) Provide all structural components of the stop logs fabricated of aluminum and with strength to prevent distortion during normal handling, during installation and while in service as specified and indicated.
- (g) Provide all structural components of the guide frames fabricated of stainless steel with strength to prevent distortion during normal handling, during installation and while in service as specified and indicated.
- (h) Provide all welds performed by welders with AWS D1.2 certification for aluminum and AWS D1.6 certification for stainless steel.
- (i) Finish: mill finish on aluminum and stainless steel.
- (j) Provide welds on aluminum cleaned to provide a uniform finish.
- (k) Provide weld on stainless steel sandblasted to remove weld burn and scale.

E7.4.4 Stop Logs

- (a) Provide stop logs constructed of extruded aluminum shapes or plates with a minimum thickness as specified below or as required for the head as shown on the Drawings and as specified herein.
 - (i) Aluminum: 8 mm.
- (b) Materials:
 - (i) 6061-T6 Aluminum.
- (c) The stop log shall be designed for the minimum safety factor of 5 with regard to ultimate tensile, compressive, and shear strength and a minimum safety factor of 3 with regard to the tensile, compressive, and shear yield strength. In applying the above factors, consideration shall be given to the reduced properties of welds. Heat treatment of welds is not permitted. The stop log shall have surfaces to engage the guides for the full length. Stop log deflection shall not exceed $1/720$ of gate width at maximum design head, or $1/16$ in. (1.6 mm), whichever is less. Mating surfaces shall be accurately formed to ensure proper operation.
- (d) Provide stop logs designed to prevent buoyancy and to allow drainage from extruded sections on removal.
- (e) Provide two lift points on top of each stop log for removal and installation by means of the specified stop log lifting device listed in E7.4.7.
- (f) Provide each stop log with a welded identification tag indicating the following:
 - (i) Manufacturer and model number;
 - (ii) Width of the opening;
 - (iii) Design head;
 - (iv) Seal material; and
 - (v) Site location (in mileage).

E7.4.5 Seals

- (a) Provide stop logs with a continuous resilient seal along the bottom and both sides to restrict the leakage to the rate specified.
- (b) Materials: Urethane ASTM D4020, Neoprene ASTM D2000 or EPDM.
- (c) Provide all seals of urethane or rubber, replaceable and retained to the stop logs.

E7.4.6 Frames

- (a) Provide frame guides or grooves and invert members constructed of stainless steel plate with a minimum thickness of 6 mm.
- (b) Materials: ASTM A240 Type 316L stainless steel.

- (c) Provide frame design to allow for embedded mounting.
- (d) Provide a flush bottom invert member across the bottom of the guides.

E7.4.7 Stop Log Lifting Device

- (a) Provide one (1) stop log lifting device for each different stop log (guide frame) width (3 total required).
- (b) Provide the lifter and fitted with Ultra High Molecular Weight Polyethylene (UHMWPE) guide bars or rollers and stainless steel fasteners.
- (c) Provide the lifter with lifting hooks designed to engage the stop logs.
- (d) Provide a lanyard release.
- (e) Provide the lifting device capable of installing and removing stop logs one at a time from operating floor level.

E7.4.8 Cementitious Grout

- (a) Cementitious grout shall be BASF MasterFlow 928 or approved equal in accordance with B7.
- (b) Cementitious grout shall comply with ANSI/NSF 61 "Drinking Water System Components – Health Effects".
- (c) Cementitious grout shall be mixed and applied in accordance with the manufacturer's instructions and of a consistency suitable for the intended application.

E7.4.9 Fasteners, Nuts and Bolts

- (a) Materials: ASTM A276 Type 316 stainless steel.
- (b) Anchor Bolts: Minimum 13 mm diameter or as recommended by manufacturer.
- (c) Anchorage adhesive: Hilti HIT-HY 200 or approved equal in accordance with B7.

E7.5 Construction Methods

E7.5.1 Installation

- (a) Install items in accordance with shop drawings, manufacturer's printed instructions and as indicated.
- (b) Clean debris, dirt, and gravel, from inside of stop logs, guide frames and channels before placing stop logs.
- (c) Install guide frames in a true vertical position and grout all voids between guide frames and walls.
- (d) Inspect material for defects in workmanship and material.
- (e) Minor chipping and/or grinding may be required to remove localized irregularities.
- (f) Grout frame in existing concrete channel with non-shrink grout

E7.5.2 Field Testing

- (a) Visual inspection to be completed in the presence of the Contract Administrator and a qualified field representative from the manufacturer/supplier.
- (b) After installation of guide frames, and after inspection, operation, testing and adjustment have been completed by the manufacturer's field service technician, conduct operating test for each stop log in presence of the Contract Administrator to determine its ability to operate as specified, and to operate smoothly without jamming under specified conditions.
- (c) Test installation and removal of each stop log location with the number of stop logs as indicated.
- (d) Immediately correct or replace all defects or defective equipment revealed by or noted during tests at no additional cost to the City.

- (e) Repeat tests until specified results are obtained.
- (f) Make all adjustments necessary to place equipment in specified working order at time of above tests.
- (g) Remove and replace equipment at no additional cost to the City with equipment that will meet all requirements specified and indicated if unable to demonstrate to the satisfaction of the Contract Administrator that equipment will perform the service specified, indicated and as submitted.

E7.6 Method of Measurement and Basis of Payment

E7.6.1 Supply and installation of stop logs will be measured on a unit basis for each site listed on Form B: Prices, and shall include supply and installation of stop logs and mounting channels. Price shall include all anchors, grouts, preparation of existing concrete surfaces, and testing.

E8. DAVIT CRANE

E8.1 Design

- (a) Design crane to following requirements:
 - (i) Minimum Lifting capacity of 250 kg at maximum reach of crane;
 - (ii) Minimum Lifting capacity of 325 kg at 1.036 metres of horizontal reach;
 - (iii) Lift range to 3 m below floor level;
 - (iv) Horizontal reach from 0.86 m to 1.6 m;
 - (v) Operational rotational range 180 degrees;
 - (vi) Vertical arm adjustment;
 - (vii) Crane arm shall be epoxy coated; and
 - (viii) Manual winch.
- (b) Design minimum base davit assuming;
 - (i) Anchorage requirements assuming concrete strength 25 MPa;
 - (ii) Davit base to be permanently mounted;
 - (iii) Crane shall be davit mounted and removable by operational personnel; and
 - (iv) Davit shall be protected from corrosion by galvanization or other approved means.

E8.2 Products

- (a) Crane
 - (i) Commander 1000 Series by Thern.
 - (ii) Or Approved Equal in accordance with B7.
- (b) Anchor Bolts shall be Stainless Steel
- (c) Anchorage adhesive:
 - (i) Hilti HIT-HY 200.
 - (ii) Or approved equal in accordance with B7.

E8.3 Measurement and Payment

E8.4 Supply of Davit Crane shall be paid as a lump sum for each unit as indicated on Form B: Prices, and shall include supply of the crane, winch, load rated hook, and shall be delivered to Site and turned over to City.

E8.5 Supply and Installation of the davit crane base will be measured and paid as a lump sum for each unit successfully supplied installed as indicated on Form B: Prices, including installation, anchor bolts, anchor adhesive and all other items required for successful installation.

E9. DISINFECTION OF AQUEDUCT

- E9.1 In accordance with Section 4.3 of AWWA Standard C651, the Contractor shall take all preventative and corrective measures during construction to prevent debris from entering the pipeline.
- E9.2 Provide containment dams upstream and downstream of the Work Area. The Contractor shall pressure wash work area with sanitized pipeline cleaning equipment prior to the commencement of disinfection operations.
- E9.3 Disinfection of the Aqueduct work area shall be carried out on completion of the Work. Disinfection shall be completed by swabbing as outline in Section 3.3.16 of CW 2125. Flushing of disinfection residual is not required.
- E9.4 Upon completion of disinfection, chlorinated water shall be pumped from the pipeline at the lowest point in the system. Chlorinated water shall not be directly discharged to the environment. Chlorinated water shall be treated by one of the following methods, as recommended in AWWARF – Guidance Manual for the Disposal of Chlorinated Water:
- (a) Be de-chlorinated using sodium ascorbate, Vita-D-Chlor™ by Integra Chemical , or approved equal in accordance with B7; and
 - (b) Contained on Site until chlorine has dissipated to acceptable limits.
- E9.5 Remove all containment dams on completion of disinfection.
- E9.6 Method of Measurement and Basis of Payment
- (a) All work outlined in this section of the Technical Specification shall be considered incidental to the work outlined in Section E7. No additional payment will be made.

PART F - SECURITY CLEARANCE

F1. SECURITY CLEARANCE

- F1.1 Each individual proposed to perform Work under this Contract and within the Winnipeg Drinking Water Treatment Plant shall be required to obtain a Police Information Check and a Public Safety Verification. The Police Information Check may be obtained from one of the following:
- (a) police service having jurisdiction at his/her place of residence; or
 - (b) Sterling Talent Solutions forms to be completed can be found on the website at: <https://forms.sterlingbackcheck.com/partners/platform2-en.php?&partner=winnipegcity> ; or
 - (c) Commissionaires (Manitoba Division), forms to be completed can be found on the website at: <https://www.commissionaires.ca/en/manitoba/home>; or
 - (d) FASTCHECK Criminal Record & Fingerprint Specialists, forms to be completed can be found on the website at: <https://myfastcheck.com>
- F1.2 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. The applicant shall:
- (a) Provide the original Police Information Check (Form P-612) to the Contract Administrator.
- F1.3 A Sterling Talent Solutions account must be setup prior to requesting individual background checks for any individual. This process should be done 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> . The Police Information Check must be received by the City directly through Sterling Talent Solutions;
- (a) Bidders shall set up an account with Sterling Talent Solutions under their company name and grant Sterling Talent Solutions permission to share the Police Information Check with the City of Winnipeg;
 - (i) Bidders will then be contacted by Sterling Talent Solutions with instructions on how to complete the Police Information Check; and
 - (ii) if additional assistance is required to obtain the Police Information Check, the Bidder may contact the following Sterling Talent Solutions representative:
Linda Ferens;
email: linda.ferens@sterlingts.com
phone: (204) 999-0912; or
 - (b) Public Safety Verification Checks can be obtained from Sterling Talent Solutions,
 - (i) Bidders will need to setup an account with Sterling Talent Solutions prior to requesting individual background checks.
 - (i) This process should be done 72hrs prior to requesting the first check. Accounts can be setup using the following link. <https://forms.sterlingbackcheck.com/partners/platform2-en.php?&partner=winnipegcity>.
 - (ii) Results of the Public Safety Verification Check must be received by the City directly through Sterling Talent Solutions.
 - (iii) Bidders shall set up an account with Sterling Talent Solutions using their company name and grant Sterling Talent Solutions permission to share the Public Safety Verification Check with the City of Winnipeg;
 - (ii) Bidders will then be contacted by Sterling Talent Solutions with instructions on how to complete the Public Safety Verification Check; and
 - (iii) if additional assistance is required to obtain the Public Safety Verification Check, the Bidder may contact the following Sterling Talent Solutions Representative:

Linda Ferens;
email: linda.ferens@sterlingts.com;
phone: (204) 999-0912.

- F1.4 Prior to the award of Contract, and during the term of the Contract if additional or replacement individuals are proposed to perform Work, the Contractor shall supply the Contract Administrator with a Police Information Check and a Public Safety Verification Check 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.
- F1.5 Any individual for whom a Police Information Check and/or a Public Safety Verification Check is not provided, or for whom a Police Information Check indicates any convictions or pending charges related to property offences or crimes against another person will not be permitted to perform any Work.
- F1.6 Any Police Information Check and a Public Safety Verification Check obtained thereby 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 its sole discretion and acting reasonably, require an updated Police Information Check and/or a Public Safety Verification Check. Any individual who fails to provide a satisfactory Police Information Check and/or Public Safety Verification Check as a result of a repeated Police Information Check will not be permitted to continue to perform any Work as specified in F1.1.