

# THE CITY OF WINNIPEG

# **TENDER**

**TENDER NO. 538-2021** 

NON-METALLIC COMPOSITE REPAIR SYSTEM FOR NEWPCC RAS PIPING SYSTEM REFURBISHMENT

# **TABLE OF CONTENTS**

PART	Α-	BID	SUE	3MI	SSI	ON
------	----	-----	-----	-----	-----	----

Form A: Bid/Proposal	
Form R. Prices	

Form G1: Bid Bond and Agreement to Bond

PART	<b>B</b> - <b>B</b>	IDDING	PROC	EDURES

B1.	Contract Title	1
	Submission Deadline	1
	Bidders' Conference	1
	Site Investigation	2 2
	Enquiries Confidentiality	3
	Addenda	3
	Substitutes	3
	Bid Components	4
	. Bid	5
B11.	. Prices	5
	. Disclosure	6
	. Conflict of Interest and Good Faith	6
	. Qualification	7
	. Bid Security . Opening of Bids and Release of Information	10
	. Irrevocable Bid	10
	. Withdrawal of Bids	10
B19	. Evaluation of Bids	11
B20	. Award of Contract	11
PART C	- GENERAL CONDITIONS	
C0.	General Conditions	1
PART D	- SUPPLEMENTAL CONDITIONS	
Gen	eral	
	General Conditions	1
	Form of Contract Documents	1
	Scope of Work	1
	Definitions Contract Administrator	1
	Contract Administrator Contractor's Supervisor	2 2
	Notices	2
	Furnishing of Documents	3
	missions	
	Authority to Carry on Business	3
	. Safe Work Plan	3
D11	. Quality Management Plan	3
	. Insurance	4
	. Contract Security	5
	. Subcontractor List	6
_	. Detailed Work Schedule . Estimates	6
		0
	edule of Work . Commencement	e
	. Commencement . Working Days	6 7
	. Critical Stages	7
	. Substantial Performance	8
	. Total Performance	8

D22. Liquidated Damages D23. COVID-19 Schedule Delays	8 8
Control of Work D24. Job Meetings D25. Prime Contractor – The Workplace Safety and Health Act (Manitoba) D26. The Workplace Safety and Health Act (Manitoba) – Qualifications	9 9 9
Measurement and Payment D27. Invoices D28. Payment	10 10
<b>Warranty</b> D29. Warranty	10
Third Party Agreements D30. Funding and/or Contribution Agreement Obligations	11
Standardization D31. Standardized Goods D32. Contractual arrangement D33. Payment of standardization vendors Form H1: Performance Bond Form H2: Labour and Material Payment Bond Form J: Subcontractor List	13 13 13 14 16 18
PART E - SPECIFICATIONS	
General E1. Applicable Specifications and Drawings E2. General Requirements E3. Standardized Instrumentation E4. Additional Work	1 4 5 8

# **PART B - BIDDING PROCEDURES**

#### **B1. CONTRACT TITLE**

# B1.1 NON-METALLIC COMPOSITE REPAIR SYSTEM FOR NEWPCC RAS PIPING SYSTEM REFURBISHMENT

#### **B2. SUBMISSION DEADLINE**

- B2.1 The Submission Deadline is 12:00 noon Winnipeg time, October 25, 2021.
- B2.2 The Contract Administrator or the Manager of Materials may extend the Submission Deadline by issuing an addendum at any time prior to the time and date specified in B2.1.

# **B3.** BIDDERS' CONFERENCE

- B3.1 Further to C3.1, the Bidder shall attend an online virtual Bidder's Conference using MS Teams and coordinated by the Contract Administrator listed in D5.1. The Bidder's Conference will be held on the dates indicated in B3.1.1. Both Bidder's Conferences will be the same and the Bidder is only required to attend one of the two scheduled Bidder's Conferences. **Attendance is mandatory**, and the Bid of any Bidder not having attended one of the two Bidder's Conferences will be rejected on the basis that it is nonresponsive.
- B3.1.1 Bidder's Conference Dates as follows:
  - (a) Bidder's Conference #1 at 10:00 a.m. on October 6<sup>th</sup>, 2021.
  - (b) Bidder's Conference #2 at 10:00 a.m. on October 13th, 2021.
- B3.1.2 Bidders are required to register for one of the above sessions a minimum of 24 hours in advance by contacting the Contract Administrator listed in D5 and provide the Bidder's name, email address, and the preferred Conference date and time as outlined in B3.1.1.
- B3.2 The Bidder is advised that, at the Bidder's Conference, the Contract Administrator will make a PowerPoint presentation to outline the scope of the Work. The presentation will:
  - (a) Describe the Site using photographs taken during investigations conducted for the preliminary and detailed design of the rehabilitation as well as a three-dimensional model developed for the RAS piping gallery and included with this tender;
  - (b) Review laydown and parking areas as well as access routes to the Site;
  - (c) Review the Site constraints including equipment restrictions in and around the RAS piping gallery:
  - (d) Review the Project schedule and proposed construction and commissioning sequencing; and.
  - (e) Address Bidder's questions in accordance with B3.4.
- B3.3 The Bidder's Conference is the only opportunity the Bidder will have to familiarize themselves with the three-dimensional model with the assistance of the Contract Administrator regarding key components of the proposed Work.
- B3.4 The Bidder shall not be entitled to rely on any information or interpretation received at the Bidders' Conference unless that information or interpretation is provided by the Contract Administrator in writing. The Bidder is advised that only general Bidder's questions will be addressed. Requests for product substitutions, questions relating to design changes, etc. will require a formal request in writing to the Contract Administrator. The Contract Administrator's response will be issued as an Addendum.
- **B3.5** Minutes from the Bidder's Conference will be issued as an Addendum.

## **B4.** SITE INVESTIGATION

- B4.1 The Contract Administrator or an authorized representative will be available at the Site at North End Sewage Treatment Plant (NEWPCC), located at 2230 Main Street, Winnipeg, MB, on the following dates and times.
  - (a) October 7th, 2021 at 10:00 am; and
  - (b) October 8th, 2021 at 10:00 am.

Investigations are by appointment only and for a maximum of three (3) attendees per Bidder to maintain social distancing measures related to COVID-19 pandemic. All attendees are to wear a nonmedical mask or face covering during the investigation.

- B4.1.1 All Bidder attendees are required to review the City's latest revision of a COVID-19 Daily Self-Screening Questionnaire and respond in writing (i.e., mark 'yes' or 'no' to each question, print date and full name, sign questionnaire, and submit via email) to the Contract Administrator at least one (1) Business Day prior the site investigation. Failure to do so may result in the Bidder attendee being denied access to the Site Investigation. A copy of the questionnaire will be provided after booking an appointment with the Contract Administrator.
- B4.1.2 The same information will be provided at both presentations of the Site Investigation.
- B4.1.3 Bidders are requested to register for the Site Investigation at least 24 hours in advance by contacting the Contract Administrator identified in D5.1 for site investigation dates and times identified in B3.1(a) and B3.1(b).
- B4.1.4 Bidders are requested to meet inside the Secondary Clarifiers Main Entrance. Refer to the map located in Appendix G for the meeting location.
- B4.1.5 Bidders attending the Site Investigation outlined in B4.1 above are required to provide their own Personal Protective Equipment; at a minimum hard hat, CSA approved footwear, and safety glasses, and non-medical mask or face covering. Refer to Appendices A, B, and C for Covid-19 related requirements.
- B4.2 Although attendance at the Site Investigations is not mandatory, the City strongly suggests that Bidders attend.
- B4.3 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.

# **B5. ENQUIRIES**

- B5.1 All enquiries shall be directed to the Contract Administrator identified in D5.1.
- B5.2 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.
- B5.3 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.
- B5.4 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.
- B5.5 The Bidder shall not be entitled to rely on any response or interpretation received pursuant to B5 unless that response or interpretation is provided by the Contract Administrator in writing.

B5.6 Any enquiries concerning submitting through MERX should be addressed to:

MERX Customer Support Phone: 1-800-964-6379 Email: merx@merx.com

# **B6.** CONFIDENTIALITY

- B6.1 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.
- B6.2 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.
- B6.3 Notwithstanding B1.1, all quotations, invoices and other pricing related information associated with the Standardized Goods and acquired by a Bidder or its Subcontractors through enquiries, investigation or any other means is confidential. Such information shall not be used or disclosed in any way, other than meeting the requirements of this Tender.

#### B7. ADDENDA

- B7.1 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.
- B7.2 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.
- B7.3 Addenda will be available on the MERX website at <a href="www.merx.com">www.merx.com</a>.
- B7.4 The Bidder is responsible for ensuring that he/she has received all addenda and is advised to check the MERX website for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.
- B7.5 The Bidder shall acknowledge receipt of each addendum in Paragraph 10 of Form A: Bid/Proposal. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.
- B7.6 Notwithstanding B5, enquiries related to an Addendum may be directed to the Contract Administrator indicated in D5.

# B8. SUBSTITUTES

- B8.1 The Work is based on the Plant, Materials and methods specified in the Tender.
- B8.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.
- B8.3 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.
- B8.4 The Bidder shall ensure that any and all requests for approval of a substitute:

- (a) provide sufficient information and details to enable the Contract Administrator to determine the acceptability of the Plant, Material or method as either an approved equal or alternative:
- (b) identify any and all changes required in the applicable Work, and all changes to any other Work, which would become necessary to accommodate the substitute;
- (c) identify any anticipated cost or time savings that may be associated with the substitute;
- (d) certify that, in the case of a request for approval as an approved equal, the substitute will fully perform the functions called for by the general design, be of equal or superior substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance;
- (e) certify that, in the case of a request for approval as an approved alternative, the substitute will adequately perform the functions called for by the general design, be similar in substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance.
- B8.5 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.
- B8.6 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.
- B8.6.1 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.
- B8.7 If the Contract Administrator approves a substitute as an "approved equal", any Bidder may use the approved equal in place of the specified item.
- B8.8 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 B19.
- B8.9 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.
- B8.10 Substitutes to the City's Standardized Goods, as identified in E2, will not be accepted.

# **B9. BID COMPONENTS**

- B9.1 The Bid shall consist of the following components:
  - (a) Form A: Bid/Proposal;
  - (b) Form B: Prices;
  - (c) Form G1: Bid Bond and Agreement to Bond.
- B9.2 All components of the Bid shall be fully completed or provided, and submitted by the Bidder no later than the Submission Deadline, with all required entries made clearly and completely.
- B9.3 The Bid shall be submitted electronically through MERX at www.merx.com.
- B9.3.1 Bids will **only** be accepted electronically through MERX.

B9.4 Bidders are advised that inclusion of terms and conditions inconsistent with the Tender document, including the General Conditions, will be evaluated in accordance with B19.1(a).

# B<sub>10</sub>. B<sub>ID</sub>

- B10.1 The Bidder shall complete Form A: Bid/Proposal, making all required entries.
- B10.2 Paragraph 2 of Form A: Bid/Proposal shall be completed in accordance with the following requirements:
  - (a) if the Bidder is a sole proprietor carrying on business in his/her own name, his/her name shall be inserted:
  - (b) if the Bidder is a partnership, the full name of the partnership shall be inserted;
  - (c) if the Bidder is a corporation, the full name of the corporation shall be inserted;
  - (d) if the Bidder is carrying on business under a name other than his/her own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.
- B10.2.1 If a Bid is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B10.2.
- B10.3 In Paragraph 3 of Form A: Bid/Proposal, the Bidder shall identify a contact person who is authorized to represent the Bidder for purposes of the Bid.
- B10.4 Paragraph 13 of Form A: Bid/Proposal shall be signed in accordance with the following requirements:
  - (a) if the Bidder is a sole proprietor carrying on business in 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;
  - (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.
- B10.4.1 The name and official capacity of all individuals signing Form A: Bid/Proposal should be entered below such signatures.
- B10.5 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.

#### B11. PRICES

- B11.1 The Bidder shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.
- B11.1.1 Notwithstanding C12.2.3(c), prices on Form B: Prices shall not include the Manitoba Retail Sales Tax (MRST, also known as PST), which shall be extra where applicable.
- B11.1.2 Prices stated on Form B: Prices shall not include any costs which may be incurred by the Contractor with respect to any applicable funding agreement obligations as outlined in D29. Any such costs shall be determined in accordance with D29.
- B11.2 Form B, Item 6: The Bidder shall enter the cost of the Standardized Goods to be supplied from Trans-West Supply Company Inc. (Trans-West) as part of the Standardized Instrumentation agreement identified in E3. The cost shall be the base cost received from Trans-West, without any mark-up or taxes applied.

- Template Version: eC020200911 Main C
- B11.2.1 Any mark-up to the supply of the Standardized Goods shall be deemed to be included in other applicable Form B lines.
- B11.2.2 Standardised goods include the following:
  - (a) Six (6) RAS System Flow Meters.
  - (b) Three (3) WAS System Flow Meters.
- B11.3 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.
- B11.4 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.
- B11.5 Payments to Non-Resident Contractors are subject to Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).
- B11.6 The Bidder shall enter the Total Bid Price from Form B: Prices into the Total Bid Price field in MERX.
- B11.6.1 Bidders are advised that the calculation indicated in B19.4 will prevail over the Total Bid Price entered in MERX.

#### **B12. DISCLOSURE**

- B12.1 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.
- B12.2 The Persons are:
  - (a) Structural Technologies
    - Structural Technologies provided information pertaining to specifications for nonmetallic composite repair systems
  - (b) Park DeRochie Canada Inc.
    - Park DeRochie Canada provided information pertaining to specifications for nonmetallic composite repair systems
  - (c) Trotter & Morton Industrial Contracting Inc.
    - Trotter & Morton Industrial Contracting Inc. assisted in preparing budgetary estimates for the project.

#### **B13.** CONFLICT OF INTEREST AND GOOD FAITH

- B13.1 Further to C3.2, Bidders, by responding to this Tender, declare that no Conflict of Interest currently exists, or is reasonably expected to exist in the future.
- B13.2 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:

- 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.
- B13.3 In connection with its Bid, each entity identified in B13.2 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.
- B13.4 Without limiting B13.3, 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.
- B13.5 Without limiting B13.3, 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 B13.4 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.
- B13.6 The final determination of whether a perceived, potential or actual Conflict of Interest exists shall be made by the City, in its sole discretion.

#### **B14. QUALIFICATION**

- B14.1 The Bidder shall:
  - (a) undertake to be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba; and
  - (b) be financially capable of carrying out the terms of the Contract; and

- Template Version: eC020200911 Main C
  - (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.
- B14.2 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 <a href="https://www.winnipeg.ca/matmgt/Templates/files/debar.pdf">https://www.winnipeg.ca/matmgt/Templates/files/debar.pdf</a>
- B14.3 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; and
  - (c) have a written workplace safety and health program if required pursuant to The Workplace Safety and Health Act (Manitoba).
- B14.4 Further to B14.3 (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 <a href="http://www.winnipeg.ca/matmgt/">http://www.winnipeg.ca/matmgt/</a>.
- B14.5 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. The submittals shall include the following:
  - (a) General Qualifications: Submit the proposed procedure for the CFRP system including:
    - (i) Each step of the application method with surface preparation, application, cure, and seal of the proposed combination of primer adhesive, repair laminate, filler, and topcoat.
    - (ii) Basic material documentation required in subsection 3.2.1 of ASME PCC-2 Part 4, Article 4.1 clearly indicating the product name and manufacturer, accompanied by the applicable datasheet highlighting each parameter required.
  - (b) CFRP Design Engineer and CFRP Inspector Qualifications:
    - (i) Written documentation that the CFRP Design Engineer of record is a Professional Engineer licensed and registered (or eligible to be registered) in Manitoba.
    - (ii) Descriptions of five (5) projects involving external CFRP systems for above-grade piping rehabilitation within the past five (5) years. Provide detailed project summary and project owner's contact information for all reference projects.

- (iii) Up-to-date Curriculum Vitae (CV) for each engineer working on the project design team.
- (iv) Up-to-date Curriculum Vitae (CV) for on-site CFRP Inspector.
- (c) CFRP Manufacturer Qualifications:
  - (i) Descriptions of five (5) projects involving external CFRP systems for above-grade piping rehabilitation within the past five (5) years, as described in Section 1.5.1.
  - (ii) Repair system qualification data in accordance with ASME PCC-2 Part 4, Article 4.1 Section 3.2 including a filled out/completed copy of the table provided in Appendix J in accordance with Table 1 and Mandatory Appendix II.
    - Test reports shall indicate clearly the commercial names of the products used, batch ID, sample dimensions, number of samples tested, number of fabric layers used, load and strain measurement techniques, failure modes, and obtained strength, modulus, and ultimate elongation for each sample tested. Any deviation from the specified standards shall be clearly reported.
  - (iii) Document indicating that all materials meet local ordinances for health and safety including VOC compliance.
  - (iv) Written verification regarding acceptable cure temperatures and time as well as allowable time window between installation of different layers.
  - (v) Other relevant documentation such as specifications, datasheets, product characteristics, performance criteria, test reports, and limitations for the proposed repair system.
- (d) CFRP Installer Qualifications:
  - (i) Descriptions of five (5) projects involving external CFRP systems for above-grade piping rehabilitation within the past five (5) years, as described in Section 1.5.4.
  - (ii) Documentation that all supervisors and installation technicians who will be performing the Work are trained and licensed/certified by the CFRP Manufacturer for the proposed repair system in accordance with ASME PCC-2 Part 4, Article 4.1, Mandatory Appendix VII,
  - (iii) Documentation that the foreman, supervisors and top three (3) installation technicians who will be performing the Work each have a minimum of three (3) years of experience on minimum of five (5) projects for above-grade piping rehabilitation using the same CFRP system proposed for use on this project. A list of names, titles and projects shall be provided.
- B14.6 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.

# **B15. BID SECURITY**

- B15.1 The Bidder shall include in its Bid Submission bid security in the form of a digital bid bond, in the amount of at least ten percent (10%) of the Total Bid Price, and agreement to bond of a company registered to conduct the business of a surety in Manitoba, in Form G1: Bid Bond and Agreement to Bond, available on The City of Winnipeg, Corporate Finance, Materials Management Division website at <a href="https://www.winnipeg.ca/MatMgt/templates/files/eBidsecurity.pdf">https://www.winnipeg.ca/MatMgt/templates/files/eBidsecurity.pdf</a>.
- B15.2 Bid security shall be submitted in a digital format meeting the following criteria:
  - (a) The version submitted by the Bidder must have valid digital signatures and seals;
  - (b) The version submitted by the Bidder must be verifiable by the City with respect to the totality and wholeness of the bond form, including: the content; all digital signatures and digital seals; with the surety company, or an approved verification service provider of the surety company.
  - (c) The version submitted must be viewable, printable and storable in standard electronic file formats compatible with the City, and in a single file. Allowable formats include pdf.

- Template Version: eC020200911 Main C
  - (d) The verification may be conducted by the City immediately or at any time during the life of the bond and at the discretion of the City with no requirement for passwords or fees.
  - (e) The results of the verification must provide a clear, immediate and printable indication of pass or fail regarding B15.2(b).
- B15.3 Bonds failing the verification process will not be considered to be valid and the bid shall be determined to be non-responsive in accordance with B19.1(a).
- B15.4 Bonds passing the verification process will be treated as original and authentic.
- B15.4.1 If the Bidder submits alternative bids, the bid security shall be in the amount of the specified percentage of the highest Total Bid Price submitted.
- B15.5 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 formed with the successful Bidder and the contract securities are furnished as provided herein. The bid securities of all other Bidders will be released when a Contract is awarded.
- B15.6 The bid securities of all Bidders will be released by the City as soon as practicable following notification by the Contract Administrator to the Bidders that no award of Contract will be made pursuant to the Tender.

#### B16. OPENING OF BIDS AND RELEASE OF INFORMATION

- B16.1 Bids will not be opened publicly.
- B16.2 Following the Submission Deadline, the names of the Bidders and their Total Bid Prices (unevaluated and pending review and verification of conformance with requirements) will be available on the MERX website at <a href="https://www.merx.com">www.merx.com</a>.
- B16.3 After award of Contract, the name(s) of the successful Bidder(s) and their Contract amount(s) will be available on the MERX website at www.merx.com.
- B16.4 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).
- B16.4.1 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.

#### **B17.** IRREVOCABLE BID

- B17.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 11 of Form A: Bid/Proposal.
- B17.2 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 formed and the contract securities have been furnished as herein provided, but any Bid shall be deemed to have lapsed unless accepted within the time period specified in Paragraph 11 of Form A: Bid/Proposal.

#### **B18. WITHDRAWAL OF BIDS**

B18.1 A Bidder may withdraw his/her Bid without penalty at any time prior to the Submission Deadline.

## **B19. EVALUATION OF BIDS**

- B19.1 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 B14 (pass/fail);
  - (c) Total Bid Price;
  - (d) economic analysis of any approved alternative pursuant to B8.
- B19.2 Further to B19.1(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.
- B19.3 Further to B19.1(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.
- B19.4 Further to B19.1(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.
- B19.4.1 Bidders are advised that the calculation indicated in B19.4 will prevail over the Total Bid Price entered in MERX.

#### **B20.** AWARD OF CONTRACT

- B20.1 The City will give notice of the award of the Contract or will give notice that no award will be made.
- B20.2 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.
- B20.2.1 Without limiting the generality of B20.2, 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.
- B20.3 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 D29 shall immediately take effect upon confirmation of such funding, regardless of when funding is confirmed.
- B20.3.1 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.
- B20.4 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 B19.
- B20.4.1 Following the award of contract, a Bidder will be provided with information related to the evaluation of his/her Bid upon written request to the Contract Administrator.

# **PART C - GENERAL CONDITIONS**

# CO. GENERAL CONDITIONS

- C0.1 The *General Conditions for Construction* (Revision 2020 01 31) are applicable to the Work of the Contract.
- C0.1.1 The General Conditions for Construction are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <a href="http://www.winnipeg.ca/matmgt/gen.cond.stm">http://www.winnipeg.ca/matmgt/gen.cond.stm</a>
- C0.2 A reference in the Tender to a section, clause or subclause with the prefix "C" designates a section, clause or subclause in the *General Conditions for Construction*.

## **PART D - SUPPLEMENTAL CONDITIONS**

#### **GENERAL**

## D1. GENERAL CONDITIONS

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

## D2. FORM OF CONTRACT DOCUMENTS

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

# D3. SCOPE OF WORK

D3.1 The Work to be done under the Contract shall consist of the refurbishment of the Return Activated Sludge (RAS) piping system and associated works for North End Sewage Treatment Plant (NEWPCC) as described in the tender documents. A detailed summary of the Work is provided in Section 011100 - Summary of Work.

#### D4. DEFINITIONS

- D4.1 When used in this Tender:
  - (a) "Addendum" means a written addendum to the Tender issued by the City as set out in B7;
  - (b) "ASME" means the American Society of Mechanical Engineers;
  - (c) "Carbon Fiber Reinforced Polymer (CFRP)" means a solid composite material that is comprised of a thermoset resin system that is reinforced by continuous high-strength carbon fiber fabric.
  - (d) "CFRP Design Engineer" means the company or organisation that is responsible for the design of the composite wrap repair system that is based on this technical specification and contract Drawings provided by the Contract Administrator. The CFRP Design Engineer is the Engineer of Record for the composite wrap repair system.
  - (e) "CFRP Inspector" means the company or individual responsible for the continuous on-site inspection of the composite pipe wrap repair system as a representative of the CFRP Design Engineer.
  - (f) "CFRP Installer" means the company or organisation that installs the composite wrap repair system using the materials supplied by the CFRP Manufacturer and the drawings and specifications provided by the CFRP Design Engineer and the Contract Administrator.
  - (g) "CFRP Manufacturer" means the company or organisation that manufactures or procures the materials used in the installation of the wrap system.
  - (h) "Commissioning" means the process of verifying that new equipment, and systems are installed, tested and capable of being operated and maintained to perform in conformance with the Drawings and Specifications. Commissioning includes, but is not limited to, satisfactory delivery, installation, training, testing, demonstration, performance verification, and document delivery for all equipment;
  - (i) "CSA" means the Canadian Standards Association international, formerly the Canadian standards association;
  - (j) "Glass Fiber Reinforced Polymer (GFRP)" means a solid composite material that is comprised of a thermoset resin system that is reinforced by continuous glass fiber fabric.

- Template Version: eC020200911 Main C
  - (k) "ISO" means the International Organization for Standardization;
  - (I) "NEWPCC" means North End Sewage Treatment Plant;
  - (m) "O&M" means Operation and Maintenance;
  - (n) "PDF" means Portable Document Format;
  - (o) "Professional Engineer" means an engineer registered in the Province of Manitoba;
  - (p) "RAS" means Return Activated Sludge;
  - (q) "Stand Alone Repair System" means a composite wrap repair that is fully replaces the pipe that previously contained the process fluid. The standalone system must generally be able to support the process fluid and existing pipe on its own and remain within design limits for stress and strain.
  - (r) "Standardized Goods" means the respective goods identified in D31 that have been standardized by the City.
  - (s) "Standardization Vendor" means a contractor or supplier of Standardized Goods, as identified in D31.
  - (t) "WAS" means Waste Activated Sludge;
  - (u) "WSTP" means Winnipeg Sewage Treatment Program; and
  - (v) "WWD" means Water and Waste Department

#### D5. CONTRACT ADMINISTRATOR

D5.1 The Contract Administrator is KGS Group, represented by:

Prasan Silva, P.Eng. Senior Mechanical Engineer

Telephone No. 204 998 2278

Email Address psilva@kgsgroup.com

D5.2 At the pre-construction meeting, KGS Group will identify additional personnel representing the Contract Administrator and their respective roles and responsibilities for the Work.

#### D6. CONTRACTOR'S SUPERVISOR

D6.1 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.

#### D7. NOTICES

- D7.1 Except as provided for in C22.4, all notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the Contractor shall be sent to the address or facsimile number identified by the Contractor in Paragraph 2 of Form A: Bid/Proposal.
- 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 or elsewhere in the Contract, shall be sent to the attention of the Contract Administrator identified in D5.
- D7.3 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications required to be submitted or returned to the City Solicitor shall be sent to the following facsimile number:

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

## D8. FURNISHING OF DOCUMENTS

D8.1 Upon award of the Contract, the Contractor will be provided with 'issued for construction' Contract Documents electronically, including Drawings in PDF formal only.

#### **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 Documents, if applicable.
- 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 <a href="http://www.winnipeg.ca/matmgt/Safety/default.stm">http://www.winnipeg.ca/matmgt/Safety/default.stm</a>
- D10.3 Notwithstanding B14.4 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. QUALITY MANAGEMENT PLAN

- D11.1 The Contractor shall submit a detailed Quality Management Plan that demonstrates conformance to the ISO 9001 Quality Management Standard or an equivalent standard.
- D11.2 The Quality Management Plan shall describe the Contractor's Quality Management System or "QMS" to provide an organizational structure, procedures, processes and resources necessary to implement a comprehensive, planned and systematic program to ensure that the standards of quality control, quality management and quality assurance are achieved by the Contractor in every material aspect.
  - (a) The QMS shall be consistent with the requirements of ISO 9001:2008 and all subsequent revisions, and shall address all stages of the Works in accordance with the Tender Documents. The QMS shall include procedures to monitor, update and manage the QMS. The QMS shall identify the staff responsible for carrying out quality control and quality assurance. The QMS shall require that testing, inspection and quality control records and reports are prepared and provided to the Contract Administrator.
  - (b) The QMS shall provide a framework for the integration and structuring of the various quality management plans and systems that comprise the Quality Management System.

- (c) The QMS shall integrate the design and construction services including detailed quality assurance and quality control procedures, training, staffing assignments and communication protocols.
- (d) The QMS shall ensure the provision of durable, dependable and high-quality assets that will meet the specified design life of the Facility and provide dependable service to the City after the Term.
- (e) The QMS shall ensure that problems are discovered early, resolved quickly, corrected adequately and do not recur.
- (f) The QMS shall ensure that persons participating in the Works are competent to do their required tasks and are qualified and licensed as required.
- (g) The QMS shall ensure that deficiencies are documented along with a mechanism to ensure prompt and effective corrective action.

## D11.3 Quality Records

(a) The Contractor shall maintain complete records of all tests, reports and other documentation pertaining to its Quality Management System to demonstrate that the Work comply with the requirements of the tender documents.

#### D12. INSURANCE

- D12.1 The City shall provide and maintain the following owner-controlled project insurance coverage to remain in place at all times during the performance of the Work and throughout the warranty period unless otherwise stated below:
  - (a) Wrap-up liability insurance in an amount of no less than ten million dollars (\$10,000,000) inclusive per occurrence and ten million dollars (\$10,000,000) general aggregate, covering bodily injury, personal injury, damage to the existing structure, if available, property damage and products and completed operations consistent with industry standard insurance policy wordings. Wrap up liability insurance to also include evidence of contractual liability and cross liability clauses.
    - (i) The Contractor shall be responsible for deductibles up to \$50,000 maximum of any one loss.
    - (ii) The City will carry such insurance to cover the City, Contractors, and Subcontractors as insureds. Provision of this insurance by the City is not intended in any way to relieve the Contractor from his obligations under the terms of the Contract. Specifically, losses relating to deductibles for insurance, as well as losses in excess of limits of coverage and any risk of loss that is not covered under the terms of the insurance provided by the City remains with the Contractor.
    - (iii) BellMTS, Manitoba Hydro, Shaw, Rogers and Telus shall be shown as additional insured, as required by contract.
    - (iv) Wrap-up liability insurance shall be maintained from the date of the commencement of the Work until the date of Total Performance of the work and shall include an additional 24 months completed operations coverage which will take affect after the Total Performance.
  - (b) all risks course of construction insurance in the amount of one hundred percent (100%) of the total Contract Price, written in the names of the City, Contractor and subcontractors including testing and commissioning and shall remain in place until Substantial Performance. If all testing and commissioning has not been completed at Substantial Performance, the insurance must extend at least ten (10) days after such time as all testing and commissioning has been completed. The Contractor shall be responsible for deductibles up to one hundred thousand dollars (\$100,000.00) maximum of any one loss except one hundred fifty thousand (\$150,000.00) dollars for flood and water damage.

- D12.2 The Contractor shall provide and maintain the following insurance coverage to remain in place at all times during the performance of the Work and throughout the warranty period:
  - (a) commercial general liability insurance, in the amount of at least five million dollars (\$5,000,000.00) 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) property insurance for equipment, tools, field office and portable toilets, if to be used by the Contractor directly or indirectly in the performance of the Work on the Project that may be owned, rented, leased or borrowed.
- D12.3 The Contractor shall provide the City with any information reasonably requested by the City, from time to time, to enable the insurance specified in D12.1 Insurance to be appropriately underwritten by competent insurers. Such information shall be provided within 14 calendar days from the request.
- D12.4 Deductibles shall be borne by the Contractor.
- D12.5 The Contractor shall provide the City Solicitor with a certificate(s) of insurance, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Work but in no event later than the date specified in C4.1 for the return of the executed Contract Documents, as applicable.
- D12.6 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.

# D13. CONTRACT SECURITY

- D13.1 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.
- D13.1.1 Where the contract security is a performance bond, it may be submitted in hard copy or digital format. If submitted in digital format the contract security must meet the following criteria:
  - (a) the version submitted by the Contractor must have valid digital signatures and seals;
  - (b) the version submitted by the Contractor must be verifiable by the City with respect to the totality and wholeness of the bond form, including: the content; all digital signatures and digital seals; with the surety company, or an approved verification service provider of the surety company.

- Template Version: eC020200911 Main C
  - (c) the version submitted must be viewable, printable and storable in standard electronic file formats compatible with the City, and in a single file. Allowable formats include pdf.
  - (d) the verification may be conducted by the City immediately or at any time during the life of the bond and at the discretion of the City with no requirement for passwords or fees
  - (e) the results of the verification must provide a clear, immediate and printable indication of pass or fail regarding D13.1(b).
- D13.1.2 Digital bonds failing the verification process will not be considered to be valid and may be determined to be an event of default in accordance with C18.1. If a digital bond fails the verification process, the Contractor may provide a replacement bond (in hard copy or digital format) within seven (7) Calendar Days of the City's request or within such greater period of time as the City in its discretion, exercised reasonably, allows.
- D13.1.3 Digital bonds passing the verification process will be treated as original and authentic.
- D13.2 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 an award letter and prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract Documents, if applicable.
- D13.3 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 D13.1(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.

# D14. SUBCONTRACTOR LIST

D14.1 The Contractor shall provide the Contract Administrator with a complete list of the Subcontractors whom the Contractor proposes to engage (Form J: Subcontractor List) at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract Documents, if applicable.

## D15. DETAILED WORK SCHEDULE

- D15.1 The Contractor shall provide the Contract Administrator with a detailed work schedule at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract Documents if applicable.
  - (a) The schedule shall be prepared in accordance to Section 01 32 16 CONSTRUCTION PROGRESS SCHEDULE CRITICAL PATH METHOD (CPM)

#### D16. ESTIMATES

D16.1 The Contractor shall provide the Contract Administrator with copies of the estimates provided by Standardized Equipment Suppliers identified in E3.

## **SCHEDULE OF WORK**

#### D17. COMMENCEMENT

D17.1 The Contractor shall not commence any Work until he/she is in receipt of an award letter from the Award Authority authorizing the commencement of the Work.

- Template Version: eC020200911 Main C
- D17.2 The Contractor shall not commence any Work on the Site until:
  - (a) the Contract Administrator has confirmed receipt and approval of:
    - (i) evidence of authority to carry on business specified in D9;
    - (ii) evidence of the workers compensation coverage specified in C6.15;
    - (iii) the Safe Work Plan specified in D10;
    - (iv) the Quality Management Plan specified in D11;
    - (v) evidence of the insurance specified in D12;
    - (vi) the contract security specified in D13;
    - (vii) the Subcontractor list specified in D14;
    - (viii) the detailed work schedule specified in D15; and
    - (ix) the estimates specified in D16.
  - (b) the Contractor has attended a pre-construction meeting with the Contract Administrator, or the Contract Administrator has waived the requirement for a pre-construction meeting.
- D17.3 The Contractor shall commence the Work on the Site within seven (7) Working Days of receipt of the award letter.
- D17.4 The City intends to award this Contract by December 15, 2021.
- D17.4.1 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.

# D18. WORKING DAYS

- D18.1 Further to C1.1(tt), the Contract Administrator's determination of whether or not atmospheric and Site conditions are such that a Working Day is deemed to have elapsed may be based at one time on one type of work while at another time a Working Day may be based on another type of work. When more than one type of major work is involved, the quantity of equipment that must be able to work in order to meet the requirements of a Working Day may vary considerably from that specified in the General Conditions.
- D18.2 In the event that incidental work is behind schedule which, in the opinion of the Contract Administrator, should have been or could have been carried out by the Contractor in conjunction with or immediately following work of a major type, the City hereby reserves the right to charge Working Days on the incidental work until such time as it is up to schedule.
- D18.3 When the major type of work involves restoration of the site to the condition it was prior to rainfall, Working Days shall not be charged.
- D18.4 The Contract Administrator will furnish the Contractor with a daily record for each major type of work showing various information concerning the equipment, the time it worked, could have worked and Working Days charged. This report is to be signed each day by an authorized representative of the Contractor.

## D19. CRITICAL STAGES

- D19.1 The Contractor shall achieve critical stages of the Work in accordance with the following requirements:
  - (a) Completion of RAS 2 and RAS 3 shutdowns for replacement of piping at HPO Reactors by March 15, 2022.
  - (b) Completion of CFRP Wrapping by November 25, 2022.

(c) Completion of RAS 1 shutdown for replacement of piping at HPO Reactors by January 31, 2023.

# D20. SUBSTANTIAL PERFORMANCE

- D20.1 The Contractor shall achieve Substantial Performance by February 17, 2023.
- D20.2 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.
- D20.3 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.

## D21. TOTAL PERFORMANCE

- D21.1 The Contractor shall achieve Total Performance by April 28, 2023.
- D21.2 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.
- D21.3 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.

# D22. LIQUIDATED DAMAGES

- D22.1 If the Contractor fails to achieve Critical Stages, Substantial Performance or Total Performance in accordance with the Contract by the days fixed herein for same, the Contractor shall pay the City the following amounts per Working Day for each and every Working Day following the days fixed herein for same during which such failure continues:
  - (a) Critical Stage (a) Two hundred fifty dollars (\$250.00);
  - (b) Critical Stage (b) Five hundred dollars (\$500.00);
  - (c) Critical Stage (c) Five hundred dollars (\$500.00);
  - (d) Substantial Performance One thousand dollars (\$1,000.00);
  - (e) Total Performance Five hundred dollars (\$500.00).
- D22.2 The amounts specified for liquidated damages in D21.1 are based on a genuine pre-estimate of the City's losses in the event that the Contractor does not achieve critical stages, Substantial Performance or Total Performance by the days fixed herein for same.
- D22.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

#### D23. COVID-19 SCHEDULE DELAYS

D23.1 The City acknowledges that the schedule for this Contract may be impacted by the COVID-19 pandemic. Commencement and progress of the Work shall be performed by the Contractor with due consideration to the health and safety of workers and the public, directives from health

- authorities and various levels of government and in close consultation with the Contract Administrator.
- D23.2 If the Contractor is delayed in the performance of the Work by reason of the COVID-19 pandemic, the Work schedule may be adjusted by a period of time equal to the time lost due to such delay and costs related to such delay will be determined as identified herein.
- D23.3 A minimum of seven (7) Calendar Days prior to the commencement of Work, the Contractor shall declare whether COVID-19 will affect the start date. The Contractor shall provide sufficient evidence that the delay is directly related to COVID-19, including but not limited to evidence related to availability of staff, availability of Material or work by others.
- D23.4 For any delay related to COVID-19 and identified after Work has commenced, the Contractor shall within seven (7) Calendar Days of becoming aware of the anticipated delay declare the additional delay and shall provide sufficient evidence as indicated in D22.3. Failure to provide this notice will result in no additional time delays being considered by the City.
- D23.5 The Work schedule, including the durations identified in D19 to D21 where applicable, will be adjusted to reflect delays accepted by the Contract Administrator. No additional payment will be made for adjustment of schedules except where seasonal work, not previously identified in the Contract, is carried over to the following construction season.
- D23.6 Where Work not previously identified is being carried over solely as a result of delays related to COVID-19, as confirmed by the Contract Administrator, the cost of temporary works to maintain the Work in a safe manner until Work recommences, will be considered by the Contract Administrator. Where the Work is carried over only partially due to COVID-19, a partial consideration of the cost of temporary works will be considered by the Contract Administrator.
- D23.7 Any time or cost implications as a result of COVID-19 and in accordance with the above, as confirmed by the Contract Administrator, shall be documented in accordance with C7.

# **CONTROL OF WORK**

#### D24. JOB MEETINGS

- D24.1 Regular bi-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. Refer to Section 01 31 19 for additional requirements.
- D24.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he/she deems it necessary.

# D25. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)

D25.1 Further to C6.26, the Contractor shall be the Prime Contractor and shall serve as, and have the duties of the Prime Contractor in accordance with The Workplace Safety and Health Act (Manitoba).

# D26. THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA) – QUALIFICATIONS

D26.1 Further to B14.4, 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 B14.4.

## **MEASUREMENT AND PAYMENT**

#### D27. INVOICES

D27.1 Further to C12, the Contractor shall submit an invoice for each portion of Work performed :

The City of Winnipeg

Corporate Finance - Accounts Payable

4th Floor, Administration Building, 510 Main Street

Winnipeg MB R3B 1B9

Facsimile No.: 204 949-0864

Send Invoices to CityWpgAP-INVOICES@winnipeg.ca

Send Invoice Inquiries to CityWpgAP-INQUIRIES@winnipeg.ca

- D27.2 Invoices must clearly indicate, as a minimum:
  - (a) the City's purchase order number;
  - (b) date of delivery;
  - (c) delivery address;
  - (d) type and quantity of work performed;
  - (e) the amount payable with GST and MRST shown as separate amounts; and
  - (f) the Contractor's GST registration number.
- D27.3 The City will bear no responsibility for delays in approval of invoices which are improperly submitted.

## D28. PAYMENT

- D28.1 Further to C12, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.
- D28.2 The City's payment to the Contractor, associated with Standardized Goods, will be in accordance with C12.

#### WARRANTY

## D29. WARRANTY

- D29.1 Notwithstanding C13.2, the warranty period shall begin on the date of Total Performance and shall expire two (2) years thereafter unless extended pursuant to C13.2.1 or C13.2.2, in which case it shall expire when provided for thereunder.
- D29.2 Notwithstanding C13.2 or D28.1, the Contract Administrator may permit the warranty period for a portion or portions of the Work to begin prior to the date of Total Performance if:
  - (a) a portion of the Work cannot be completed because of unseasonable weather or other conditions reasonably beyond the control of the Contractor but that portion does not prevent the balance of the Work from being put to its intended use.
  - (b) In such case, the date specified by the Contract Administrator for the warranty period to begin shall be substituted for the date specified in C13.2 for the warranty period to begin.

- D29.3 Extended Warranty for CFRP Wrap and Welded CFRP Termination Sleeves: The Contractor shall provide a five-year bonded warranty for the CFRP system starting from the date of Total Performance, which is bonded by an "A rated surety" licensed to provide surety bonds in the Province of Manitoba. Documentation of ability to provide a bonded warranty shall be provided with bid. The warranty shall include, but not be limited to, covering workmanship and/or material defects such as bubbles, delamination, fabric tears, cracks, interfacial peel-off of CFRP layers and top-coat, leaks, and debonding from steel substrate and any other departure from the design intent. The warranty shall cover materials and labor for repair of material and/or workmanship defects during the warranty period.
  - (a) The above Warranty must cover defects in manufacture and installation of the welded sleeves that provide the adhesion surface that connects the composite repair system to the substrate pipe.
- D29.4 For the purpose of Contract Security, the warranty period shall be two (2) years for the remainder of the Work.
- D29.5 Notwithstanding C13.2, if any law of Manitoba or of the jurisdiction in which the Work was manufactured requires, or if the manufacturer provides, a longer warranty period or a warranty which is more extensive in its nature, then the provisions of such law or manufacturer's warranty shall apply.

#### THIRD PARTY AGREEMENTS

#### D30. FUNDING AND/OR CONTRIBUTION AGREEMENT OBLIGATIONS

- D30.1 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.
- D30.2 Further to D29.1, in the event that the obligations in D29 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.
- D30.3 For the purposes of D29:
  - (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.
- D30.4 Modified Insurance Requirements
- D30.4.1 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.
- D30.4.2 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.

- D30.4.3 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.
- D30.4.4 Further to D12.5, 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.
- D30.4.5 All policies must be taken out with insurers licensed to carry on business in the Province of Manitoba.
- D30.5 Indemnification By Contractor
- D30.5.1 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.
- D30.6 Records Retention and Audits
- D30.6.1 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.
- D30.6.2 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 D29.6.1 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.
- D30.7 Other Obligations
- D30.7.1 The Contractor consents to the City providing a copy of the Contract Documents to the Government of Manitoba and/or the Government of Canada upon request from either entity.
- D30.7.2 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.

- D30.7.3 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.
- D30.7.4 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.
- D30.7.5 The Contractor represents and warrants that no current or former public servant or public office holder, to whom the Value and Ethics Code for the Public Sector, the Policy on Conflict of Interest and Post Employment, or the Conflict-of-Interest Act applies, shall derive direct benefit from this Contract, including any employment, payments, or gifts, unless the provision or receipt of such benefits is in compliance with such codes and the legislation.
- D30.7.6 The Contractor represents and warrants that no member of the House of Commons or of the Senate of Canada or of the Legislative Assembly of Manitoba is a shareholder, director or officer of the Contractor or of a Subcontractor, and that no such member is entitled to any benefits arising from this Contract or from a contract with the Contractor or a Subcontractor concerning the Work.

#### **STANDARDIZATION**

#### D31. STANDARDIZED GOODS

- D31.1 The following goods have been standardized by the City and will be supplied by the Contractor:
  - (a) Standardized Instrumentation as per E3.

# D32. CONTRACTUAL ARRANGEMENT

- D32.1 Each Standardization Vendor shall be a Subcontractor of the Contractor.
- D32.2 The City's contract with each of the Standardization Vendors defines the prices and general terms of supply to the Contractor. Each Standardization Vendor is obligated to enter into a contract with the Contractor, based upon such prices and general terms of supply.
- D32.2.1 The City is not a party to any contract between a Standardization Vendor and the Contractor, or any Subcontractor.
- D32.3 In the event that a potential dispute arises between the Contractor and a Standardization Vendor, the Contract Administrator shall be notified.

# D33. PAYMENT OF STANDARDIZATION VENDORS

- D33.1 The Contractor is obligated to pay the Standardization Vendors in accordance with general terms of supply applicable to such Standardization Vendor.
- D33.2 The Contractor's payment terms to the Standardization Vendor, in respect of Standardized Instrumentation identified in E3, include the following:
- D33.2.1 The Payment shall be in Canadian funds net thirty (30) Calendar Days after receipt and approval of the Standardization Vendor's invoice.

# FORM H1: PERFORMANCE BOND

(See D13)


\_\_\_\_\_ day of \_\_\_\_\_ , 20\_\_\_ .

KNOV	V ALL MEN BY THESE PRESENTS THAT
(hereir	nafter called the "Principal"), and
	nafter called the "Surety"), are held and firmly bound unto <b>THE CITY OF WINNIPEG</b> (hereinafter called bligee"), in the sum of
	dollars (\$
sum th	ful money of Canada to be paid to the Obligee, or its successors or assigns, for the payment of which ne Principal and the Surety bind themselves, their heirs, executors, administrators, successors and is, jointly and severally, firmly by these presents.
WHEF	REAS the Principal has entered into a written contract with the Obligee for
TEND	ER NO. 538-2021
	METALLIC COMPOSITE REPAIR SYSTEM FOR NEWPCC RAS PIPING SYSTEM RBISHMENT
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) (b) (c) (d) (e)	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; perform the Work in a good, proper, workmanlike manner; make all the payments whether to the Obligee or to others as therein provided; in every other respect comply with the conditions and perform the covenants contained in the Contract; and 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;
	THIS OBLIGATION SHALL BE VOID, but otherwise shall remain in full force and effect. The Surety ot, however, be liable for a greater sum than the sum specified above.
of any	T IS HEREBY DECLARED AND AGREED that the Surety shall be liable as Principal, and that nothing kind or matter whatsoever that will not discharge the Principal shall operate as a discharge or release ility of the Surety, any law or usage relating to the liability of Sureties to the contrary notwithstanding.
IN WI	TNESS WHEREOF the Principal and Surety have signed and sealed this bond the

The City of Winnipeg Tender No. 538-2021 Template Version: eC020200911 - Main C Supplemental Conditions Page 15 of 19

SIGNED AND SEALED in the presence of:	(Name of Principal)	
(Witness as to Principal if no seal)	Per:	(Seal)
	(Name of Surety)  By: (Attorney-in-Fact)	(Seal)

# FORM H2: LABOUR AND MATERIAL PAYMENT BOND (See D13)

KNOW ALL MEN BY THESE PRESENTS THAT

his/its heirs, executors, administrators	s, successors or assigns (hereinafter called the "Princip	pal"), and
	s, successors or assigns (hereinafter called the "Surety NNIPEG (hereinafter called the "Obligee"), for the use 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. 538-2021

NON-METALLIC COMPOSITE REPAIR SYSTEM FOR NEWPCC RAS PIPING SYSTEM REFURBISHMENT

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.

	al has hereunto set its hand affixed its seal, and the with its corporate seal duly attested by the authorized	
day of	, 20	
SIGNED AND SEALED in the presence of:  (Witness as to Principal if no seal)	(Name of Principal) Per: Per:	(Seal)
	(Name of Surety)  By:(Attorney-in-Fact)	(Seal)

# **FORM J: SUBCONTRACTOR LIST**

(See D14)

# NON-METALLIC COMPOSITE REPAIR SYSTEM FOR NEWPCC RAS PIPING SYSTEM REFURBISHMENT

<u>Trade:</u>	Name / Address:
Mechanical:	
Composite Wrap:	
- Vendor:	
- Engineer:	
- Installer:	
Electrical:	
Civil:	
Structural Steel:	
Scaffolding:	
Painting:	
Scanning:	

# **FORM J: SUBCONTRACTOR LIST**

(See D14)

# NON-METALLIC COMPOSITE REPAIR SYSTEM FOR NEWPCC RAS PIPING SYSTEM REFURBISHMENT

Lead Abatement:	
Load / todioinont.	
Others	

# **PART E - SPECIFICATIONS**

#### **GENERAL**

E1.	APPLICABLE SPECIFICATIONS A	ND 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 <a href="http://www.winnipeg.ca/matmgt/Spec/Default.stm">http://www.winnipeg.ca/matmgt/Spec/Default.stm</a>.
- 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 B8. 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 B8.
- E1.4 The following are applicable to the Work:

Specification No.	Specification Title Table of Contents
DIVISION 01	GENERAL REQUIREMENTS
01 11 00 01 31 19 01 32 16 01 33 00 01 35 29.06 01 51 00 01 52 00 01 78 00	Summary of Work Project Meetings Construction Progress Schedule Submittal Procedures Health and Safety Requirements Temporary Utilities Construction Facilities Closeout Submittals
DIVISION 02	EXISTING CONDITIONS
02 83 10	Lead-Base Paint Abatement
02 83 10 DIVISION 03	Lead-Base Paint Abatement  CONCRETE
02 00 .0	Zoda Zaco i amit / Ibatomont
DIVISION 03  03 01 31  03 10 00  03 20 00	CONCRETE  Concrete Repair Concrete Forming and Accessories Concrete Reinforcing
DIVISION 03  03 01 31 03 10 00 03 20 00 03 30 00	CONCRETE  Concrete Repair Concrete Forming and Accessories Concrete Reinforcing Cast-In-Place Concrete

**MECHANICAL** 

**Piping** 

Valves

Pipe Wrap

General Mechanical

**DIVISION 23** 

23 05 00

23 05 05

23 21 10

23 05 23.03

DIVISION 26

DIVISION 26	ELECTRICAL
26 05 01	Common Work Results for Electrical
26 05 29	Hangers and Supports for Electrical Systems
APPENDICES	
AFFENDICES	
Appendix A	Masks Required in City Operated Facilities Po

ELECTRICAL

Appendix B
Appendix C
Appendix D
Appendix F

Appendix D Construction Plan
Appendix E Commissioning Plan
Appendix F Lead Paint Test Report

Appendix G Site Plans

Appendix H Environmental Management Policy

Appendix I City of Winnipeg Forms

Appendix J Qualification Data Requirements

Appendix K Process Data

Appendix L Lists

Appendix M Leak Location Reference Photos

Appendix N Inspection Test Plan Appendix O Quality Control Record

Appendix P Datasheets

Appendix Q
Appendix R
Appendix S
Appendix S
Appendix T

City of Winnipeg SOPs & SWPs
WWD Paint Colour Standard
City of Winnipeg Permit Forms
City of Winnipeg QA Forms

<u>Drawing No.</u> <u>Drawing Name/Title</u>

<u>General</u>

1-0101A-D0004-001 COVER SHEET

# **Mechanical**

1-0101S-M0003-002

1-0101S-M0001-001	RAS PIPE GALLERY GENERAL ARRANGEMENT
1-0101R-M0026-001	RAS PIPE GALLERY PARTIAL PLAN 1 OF 10
1-0101R-M0026-001	RAS PIPE GALLERY PARTIAL PLAN 2 OF 10
1-0101R-M0026-002	RAS PIPE GALLERY PARTIAL PLAN 3 OF 10
1-0101S-M0002-001	RAS PIPE GALLERY PARTIAL PLAN 4 OF 10
1-0101S-M0002-002	RAS PIPE GALLERY PARTIAL PLAN 5 OF 10
1-0101S-M0002-003	RAS PIPE GALLERY PARTIAL PLAN 6 OF 10
1-0101S-M0002-004	RAS PIPE GALLERY PARTIAL PLAN 7 OF 10
1-0101S-M0002-005	RAS PIPE GALLERY PARTIAL PLAN 8 OF 10
1-0101S-M0002-006	RAS PIPE GALLERY PARTIAL PLAN 9 OF 10
1-0101S-M0002-007	RAS PIPE GALLERY PARTIAL PLAN 10 OF 10
1-0101S-M0017-001	RAS PIPING REFURBISHMENT WAS HEADER PIPING GENERAL PLAN
1-0101S-M0018-001	RAS PIPING REFURBISHMENT WAS HEADER 1 PLAN AND ELEVATION
1-0101S-M0018-002	RAS PIPING REFURBISHMENT WAS HEADER 1 PLAN AND ELEVATION
1-0101S-M0019-001	RAS PIPING REFURBISHMENT WAS HEADER 2 PLAN AND ELEVATION
1-0101S-M0019-002	RAS PIPING REFURBISHMENT WAS HEADER 2 PLAN AND ELEVATION
1-0101S-M0020-001	RAS PIPING REFURBISHMENT WAS HEADER 3 PLAN AND ELEVATION
1-0101S-M0021-001	RAS PIPING REFURBISHMENT WAS PUMP SUCTION MANIFOLD PARTIAL
	PLAN AND ELEVATION
1-0101S-M0022-001	RAS PIPING REFURBISHMENT WAS PUMP DISCHARGE MANIFOLD
	PARTIAL PLAN AND ELEVATION
1-0101S-M0003-001	RAS PIPE GALLERY GENERAL ARRANGEMENT ELEVATION

RAS PIPE GALLERY GENERAL ARRANGEMENT ELEVATION

The City of Winnipeg Tender No. 538-2021

Template Version: eC020200911 - Main C

1-0101S-M0003-003 1-0101S-M0004-001	RAS PIPE GALLERY GENERAL ARRANGEMENT ELEVATION RAS PIPING REFURBISHMENT CLARIFIER RAS OUTLET PIPING DETAIL
1-0101S-M0005-001	RAS PIPING REFURBISHMENT LOW POINT DRAIN AND HIGH POINT VENT DETAIL
1-0101S-M0006-001	RAS PIPING REFURBISHMENT ENCAPSULATED FLANGE AND MECHANICAL COUPLINGS DETAIL
1-0101S-M0007-001	RAS PIPING REFURBISHMENT STEEL FLANGE TERMINATION SLEEVE GENERAL ARRANGEMENT
1-0101S-M0008-001 1-0101S-M0009-001	RAS PIPING REFURBISHMENT FLANGE TERMINATION SLEEVE DETAIL RAS PIPING REFURBISHMENT FLANGED ELBOW TERMINATION SLEEVE DETAIL
1-0101S-M0010-001	RAS PIPING REFURBISHMENT CONCRETE SADDLE TERMINATION DETAIL
1-0101S-M0011-001	RAS PIPING REFURBISHMENT FLOOR AND WALL TERMINATION DETAIL
1-0101R-M0027-001	RAS PIPING REFURBISHMENT HPO REACTOR INLET PIPING DETAIL
1-0101S-M0012-001	RAS PIPING REFURBISHMENT S801-HV TERMINATION DETAIL
1-0101S-M0013-001	RAS PIPING REFURBISHMENT S802-HV TERMINATION DETAIL
1-0101S-M0014-001	RAS PIPING REFURBISHMENT S803-HV TERMINATION DETAIL
1-0101S-M0015-001	RAS PIPING REFURBISHMENT MOCK-UP TEST SPOOLS DETAIL
1-0101S-M0016-001	RAS PIPING REFURBISHMENT MISC. PIPE SUPPORT DETAILS
1-0101S-M0023-001	RAS PIPING REFURBISHMENT MISC. PIPE SUPPORT DETAILS
1-0101S-M0024-001	WAS PIPING PIPE SUPPORT DETAILS
1-0101S-M0024-002	WAS PIPING PIPE SUPPORT DETAILS
1-0101S-M0024-003	WAS PIPING PIPE SUPPORT DETAILS
1-0101S-M0025-001	WAS HEADER 1 TIE-IN DETAILS
1-0101S-M0026-001	WAS HEADER 2 TIE-IN DETAILS
1-0101S-M0027-001	WAS HEADER 3 TIE IN DETAILS
1-0101S-M0028-001	WAS PUMPS DISCHARGE HEADER COMPOSITE WRAP TERMINATION
1-0101S-M0029-001	DETAILS WAS PUMP DISCHARGE TIE-IN DETAILS
<u>Electrical</u>	
1-0101S-E0009-001	PIPING GALLERY EAST-WEST ELECTRICAL GENERAL ARRANGEMENT
1-0101S-E0010-001	WAS HEADER PIPING ELECTRICAL GENERAL ARRANGMENT
1-0101S-E0011-001	TYPICAL FLOW METER ELECTRICAL WIRING DIAGRAM

Specifications Page 3 of 9

1-0101S-E0009-001	PIPING GALLERY EAST-WEST ELECTRICAL GENERAL ARRANGEMENT
1-0101S-E0010-001	WAS HEADER PIPING ELECTRICAL GENERAL ARRANGMENT
1-0101S-E0011-001	TYPICAL FLOW METER ELECTRICAL WIRING DIAGRAM

# **Structural**

1-0101S-S0020-001	PIPING GALLERY EAST-WEST SECTION AND DETAILS
1-0101S-S0020-002	PIPING GALLERY EAST-WEST SECTION AND DETAILS
1-0101S-S0020-003	PIPING GALLERY EAST-WEST SECTION AND DETAILS

3D Model  $538\hbox{-}2021\_Assembled\_Model\_Rev.0.nwd$ 

# **CONTRACTOR SUPPLIED STANDARDIZED GOODS**

# **E2. GENERAL REQUIREMENTS**

- E2.1 Comply with the general requirements of E2 for all Standardized Goods supplied by the Contractor.
- E2.2 Comply with the following Standardization Goods requirements:
- E2.2.1 Instrumentation in accordance with E3.
- E2.3 Contact the Contract Administrator regarding any potential uncertainty as to whether a good is covered under a standardization agreement.
- E2.4 The Contractor may utilize a Standardization Vendor to provide other goods required under the Contract, in addition to Standardized Goods.
- E2.5 The Contractor shall separately track all goods supplied under each standardization agreement.
- E2.5.1 In the event that one or more Standardization Vendors are utilized to procure goods not covered under a standardization agreement, the Contractor shall ensure such goods are quoted, ordered, tracked and accounted in a separate manner.
- E2.6 Pricing:
- E2.6.1 The City has obtained discounted pricing for Standardized Goods. Each Standardization Vendor is obligated to sell Standardized Goods to all prospective Contractors at the discounted price, provided the goods are for the City of Winnipeg.
- E2.6.2 The Standardization Vendors may at their option provide lump sum pricing for goods packages. The Standardization Vendor is not required to provide breakout pricing details to the Contractor.
- E2.6.3 The Contractor and Subcontractors shall not utilize the City's agreements with the Standardization Vendors for any purpose other than City work.
- E2.6.4 The City may audit the goods purchased from the Standardization Vendors under the standardization agreements and may identify to the Standardization Vendors any goods procured that are not associated with the Contract.
- E2.7 The Contractor is responsible for ensuring that the Material supplied by the Standardization Vendors meets the requirement of the Contract. The Contractor shall review and confirm quotations supplied by the Standardization Vendors to ensure that all required Material is supplied.
- E2.8 Without limiting or otherwise affecting any other term or condition of the Contract, including (non-exhaustive) D33.2.1:
- E2.8.1 The supply of goods through a Standardization Vendor shall not relieve the Contractor of their obligations.
- E2.8.2 Errors or omissions by a Standardization Vendor shall not be a cause for a Change in Work.
- E2.8.3 Delays by a Standardization Vendor shall not be a cause for a Change in Work where the delay could have been avoided through reasonable planning, contingency allocation, or communication by the Contractor.
- E2.8.4 The Contractor shall engage directly with the persons listed as the Standardized Vendor contact in the following sections E 3.6 unless otherwise directed by the Contract Administrator.

#### E2.9 Submittals

Template Version: eC020200911 - Main C

E2.9.1 Submittals shall be provided for Standardized Goods in accordance with the Specifications and typical industry practice. Submittals shall not be bypassed for Standardized Goods.

#### E3. STANDARDIZED INSTRUMENTATION

- E3.1 The City has standardized on a specific vendor for the supply and delivery of specific instrumentation. The Standardization Vendor was selected via RFP 449-2014 and was awarded to Trans-West Supply Company Inc. (Trans-West).
  - (a) Copies of the tender documents are available from City of Winnipeg Material Management's website.
- E3.2 Goods to be procured via this standardization agreement include but are not limited to:
  - (a) Flowmeters Electromagnetic;
  - (b) Flowmeters Differential pressure based;
  - (c) Pressure Transmitters including manifold assemblies;
  - (d) Temperature Transmitters including temperature elements and thermowells;
  - (e) Ultrasonic Level Transmitters; and
  - (f) Associated accessories.
- E3.3 For clarity, this standardization agreement does not include:
  - (a) Flowmeters Coriolis;
  - (b) Flowmeters Thermal Dispersion;
  - (c) Flowmeters Ultrasonic;
  - (d) Flow switches (i.e. mechanical);
  - (e) Pressure switches;
  - (f) Temperature switches;
  - (g) Radar Level Transmitters; and
  - (h) Level Switches (non-ultrasonic based).
- E3.4 The following model series shall be utilized unless otherwise indicated in the Specifications, Drawings or otherwise approved by the Contract Administrator:
  - (a) Magnetic Flowmeter Flowtubes SITRANS F M MAG 5100W series.
    - (i) SITRANS F M MAG 3100W series may be utilized where specified.
  - (b) Magnetic Flowmeter Transmitters SITRANS F M MAG 6000 series.
  - (c) Pressure Transmitters SITRANS P DS III.
  - (d) Temperature Transmitters
    - (i) SITRANS TF (Process Applications)
    - (ii) SITRANS TH400 (HVAC applications)
  - (e) Ultrasonic Level Transmitters
    - (i) Integrated applications: SITRANS Probe LU
    - (ii) Separate controller applications: Multiranger 100/200 with EchoMax transducers.
- E3.5 Field setup and commissioning:
- E3.5.1 Field setup and commissioning of the gas detection systems may be performed by Trans-West under the Standardization Agreement. Coordinate with Trans-West as required to understand the capabilities and limitations of Trans-West's field setup and commissioning services and provide all remaining services to provide a complete commissioning and start-up.

- E3.5.2 Field setup and commissioning of the standardized instrumentation shall be performed by Trans-West under the standardization agreement for the following:
  - (a) The first instrument of each type installed on site; and
  - (b) A minimum of five additional instruments of each type, or 10% of the actuators of that type, whichever is greater.
- E3.5.3 The Contractor may provide field setup and commissioning services for the remaining instrumentation via alternate means, provided that this does not result in a reduction of the services or quality of work.
- E3.5.4 The services provided are to include at all standard manufacturer recommended start-up and commissioning procedures, as well as the following:
  - (a) Visual Inspection
    - (i) Inspect instrument for signs of damage,
    - (ii) Verify mechanical and piping installation per drawings and manufacturer requirements,
    - (iii) Verify wiring installation per drawings and manufacturer requirements, and
    - (iv) Inspect electrical terminal compartment for foreign objects.
  - (b) Mechanical Inspection
    - (i) Check all connections and bolts for tightness and to the correct torque,
    - (ii) Check for alignment, and
    - (iii) Ensure appropriate clearances for all connecting bushings and connecting faces.
  - (c) Electrical Inspection
    - (i) Check all power wiring connections for tightness,
    - (ii) Check all fuses in the instrument for continuity,
    - (iii) Confirm input voltage is correct, and
    - (iv) Confirm that the signal / fieldbus connections are correct.
  - (d) Start-up Services
    - (i) Coordinate turning on power to the instrument,
    - (ii) Configure all applicable settings and parameters that could not be configured prior to installation,
    - (iii) Perform functional tests,
    - (iv) Coordinate with City personnel and designated representatives to confirm and finalize the application requirements,
    - (v) Configure and document all settings, as appropriate for the application,
    - (vi) Coordinate to perform test demonstrations to verify instrument performance,
    - (vii) Verify that all configuration values are in the correct state, and
    - (viii) Transfer the configuration settings to on-site personnel.
  - (e) Documentation
    - (i) Provide a signed documented commissioning form for each instrument, in a format acceptable to the Contract Administrator.
  - (f) Travel
    - (i) Provide all travel and accommodations at no additional cost.
  - (g) Personnel:
    - Personnel shall be factory trained in the maintenance, configuration, and service of the proposed instrumentation.

The City of Winnipeg Specifications
Tender No. 538-2021 Page 7 of 9

Template Version: eC020200911 - Main C

# E3.5.5 Responsibility of the Contractor:

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

## E3.6 Training

# E3.6.1 Local Training Session – General Requirements

- (a) Overview:
  - (i) Provide instruction to designated City personnel in the operation, configuration, and maintenance of the proposed instruments and associated components.
- (b) Location:
  - (i) The location of the training will be in the City of Winnipeg, in a facility provided by the City.
  - (ii) The room will be classroom style.
- (c) Submittals:
  - (i) Submit the names and qualifications of the proposed instructors.
  - (ii) Submit training proposal complete with hour-by-hour schedule including brief overview of content of each training segment a minimum of 30 Calendar Days prior to the anticipated date of beginning of training.
- (d) Quality Assurance:
  - (i) Provide competent instructors thoroughly familiar with all aspects of the instruments.
  - (ii) The Contract Administrator may reject instructors it deems to not be qualified.
  - (iii) In the event that the training provided is not satisfactory, reduction in payment may be applied.
- (e) Materials:
  - (i) Provide equipment, visual and audio aids, and materials.
  - (ii) Sample instruments of each type shall be provided, along with all equipment required to power and configure the instruments.
  - (iii) Supply manual for each trainee, describing in detail the information included in each training program.
- (f) Attendees:
  - (i) The attendees are expected to include, but not be limited to:
    - Electrical and instrumentation maintenance personnel.
- E3.6.2 Local Training Session Electromagnetic Flowmeter, Pressure, Temperature
  - (a) Provide local training sessions in accordance with E3.6.1:
  - (b) Duration:
    - Each training session shall be a minimum of six (6) hours in duration, excluding coffee and lunch breaks.
    - (ii) Each day shall be assumed to be independent of other training days, and not necessarily aligned with other on-site work or training.
  - (c) Scope:
    - (i) Each training session shall address the complete scope of all products proposed.
  - (d) For each instrument type, provide the following training content:
    - (i) Overview of the instrument,
    - (ii) Equipment maintenance training, including:
      - Installation,
      - Troubleshooting,

Specifications Page 8 of 9

The City of Winnipeg Tender No. 538-2021

- Template Version: eC020200911 Main C
- Preventative maintenance,
- Replacement of components,
- Fieldbus network troubleshooting and diagnostics, and
- Calibration procedures.
- (iii) Maintenance use of associated software and HART/PROFIBUS parameters, including:
  - Basic operation of software,
  - Connecting to instruments,
  - Configuration of parameters,
  - Download and upload software configuration, and
- (iv) Diagnostics and troubleshooting.
- (e) Number of Sessions:
  - i) Provide a minimum of two (2) sessions for each instrument type.
- E3.6.3 Electromagnetic Flowmeter Calibration Verification Tool Training
  - (a) Provide local training sessions, in accordance with E3.6.1:
  - (b) Provide one training session per unit supplied, to instruct designated City personnel in the operation, configuration, and maintenance of the proposed instruments and associated components.
  - (c) The location of the training will be in the City of Winnipeg, in a facility provided by the City.
  - (d) Provide competent instructors thoroughly familiar with all aspects of the verification tool.
    - (i) The Contract Administrator may reject instructors it deems to not be qualified.
- E3.6.4 Each training session shall be a minimum of four (4) hours in duration, excluding coffee and lunch breaks, or longer as required to instruct personnel in the required operation.
- E3.7 The contact for all quotations and purchases:

Amurthan (Amu) Abimanan Branch Manager 126 Bannister Road

Winnipeg, MB, R3R 0S3

Telephone: 204-783-0100 Mobile: 204-782-1864

E-mail: amu@transwest-mb.com

- E3.8 Quotations and orders:
- E3.8.1 Reference the following in all quotation requests, quotations \ proposals, purchase orders, and invoices:
  - (a) This Tender number; and
  - (b) A statement indicating:

"This request / purchase order is subject to the Terms and Conditions of City of Winnipeg Request for Proposal RFP 449-2014."

#### E4. ADDITIONAL WORK

- E4.1 Additional Work may be necessitated due to unforeseen circumstances that may arise during the course of the project due to:
  - (a) Additions to the scope of Work by the Contract Administrator, beyond that defined herein.
- E4.2 A cash allowance has been included on Form B: Prices.

- E4.3 The City reserves the right to delete any or all of the Cash Allowance from the Contract if the Work intended to be covered by the Cash Allowance is not required, or if the Works intended are found to be more extensive than the provisional Cash Allowance.
- E4.4 Cost of additional work shall be evaluated by the methods outlined in C7.4, and a Change Order prepared by the Contract Administrator. Cost of the Change Order will be paid on the Progress Estimate and deducted from the Cash Allowance. If the valuation of the authorized work exceeds the Value of the Cash Allowance, the Contract Value will be adjusted by the shortfall.
- E4.5 Additional services and/or Work will not be initiated for:
  - (a) Reasons of lack of performance or errors in execution.
  - (b) Scheduling changes initiated by the City, where at least 24 hours notice is given prior to the Contractors schedule time to be on Site.
- E4.6 Should it be determined that additional material or services are required, the Contract Administrator shall approve the Work, prior to commencement of the additional Work.
- E4.7 Material Mark-Up Factors:
  - (a) The base cost is to be the wholesale cost of the material, regardless of the Contractor or Subcontractor supplying the material.
  - (b) In general, the party (Contractor or Subcontractor) supplying the material is the party that purchases the material from a supplier who does not perform any work on Site, unless otherwise determined by the Contract Administrator.
  - (c) Where the Contractor is supplying the material, the mark-up on the material is limited to fifteen percent (15%).
  - (d) Where a Subcontractor is supplying the material, the total mark-up on the material, including all Subcontractors and the Contractor is limited to twenty-five percent (25%), including the Contractor and all Subcontractors' mark-ups.
  - (e) Where the Contractor's immediate Subcontractor is supplying the material:
    - (i) The Subcontractor's mark-up on the material is limited to fifteen percent (15%);
    - (ii) The Contractor's mark-up on the material is limited to ten percent (10%).
  - (f) A Third-Level Subcontractor is a Subcontractor of a Subcontractor of the Contractor.
    - (i) No Third-Level Subcontractors on this project are approved for additional mark-up.
    - (ii) In the event that a Third-Level Subcontractor is utilized, that is not approved for additional mark-up, the Contractor is responsible for coordinating the split of the maximum approved mark-up between the Contractor and Subcontractors.