



THE CITY OF WINNIPEG

TENDER

TENDER NO. 721-2024

NEWPCC PRIMARY CLARIFICATION UPGRADE PROJECT

TABLE OF CONTENTS

PART A - BID SUBMISSION

- Form A: Bid/Proposal
- Form B: Prices
- Form G1: Bid Bond and Agreement to Bond

PART B - BIDDING PROCEDURES

B1. Contract Title	1
B2. Submission Deadline	1
B3. Site Investigation	1
B4. Enquiries	1
B5. Confidentiality	2
B6. Addenda	2
B7. Substitutes	2
B8. Bid Components	3
B9. Bid	3
B10. Prices	4
B11. Disclosure	5
B12. Conflict of Interest and Good Faith	5
B13. Qualification	6
B14. Bid Security	7
B15. Opening of Bids and Release of Information	8
B16. Irrevocable Bid	8
B17. Withdrawal of Bids	9
B18. Evaluation of Bids	9
B19. Award of Contract	9

PART C - GENERAL CONDITIONS

C0. General Conditions	1
------------------------	---

PART D - SUPPLEMENTAL CONDITIONS

General

D1. General Conditions	1
D2. Form of Contract Documents	1
D3. Scope of Work	1
D4. Site Investigation Due Diligence and Risk	1
D5. Definitions	2
D6. Contract Administrator	2
D7. Contractor's Supervisor	3
D8. Accessible Customer Service Requirements	3
D9. Unfair Labour Practices	3
D10. Furnishing of Documents	4

Standardization

D11. Standardized Goods	4
D12. Contractual Arrangement	4
D13. Payment of Standardization Vendors	4

Submissions

D14. Authority to Carry on Business	5
D15. Safe Work Plan	5
D16. Insurance	6
D17. Contract Security	6
D18. Subcontractor List	7
D19. Detailed Work Schedule	7
D20. Estimates	8

Schedule of Work	
D21. Commencement	8
D22. Substantial Performance	8
D23. Total Performance	8
D24. Liquidated Damages	9
D25. Supply Chain Disruption Schedule Delays	9
Control of Work	
D26. Job Meetings	10
D27. Prime Contractor – The Workplace Safety and Health Act (Manitoba)	12
D28. The Workplace Safety and Health Act (Manitoba) – Qualifications	12
D29. Regulatory Requirements	12
Measurement and Payment	
D30. Invoices	12
D31. Payment	13
Warranty	
D32. Warranty	13
Dispute Resolution	
D33. Dispute Resolution	13
Indemnity	
D34. Indemnity	14
Third Party Agreements	
D35. Funding and/or Contribution Agreement Obligations	15
Form J: Subcontractor List	18
PART E - SPECIFICATIONS	
General	
E1. Applicable Specifications and Drawings	1
General Requirements	
E2. Facility Access	20
E3. Temporary Use of City Equipment	21
E4. Cash Allowance for Additional Work	21
E5. General Requirements	22
E6. Standardized Control System and Motor Control Equipment	23
E7. Standardized Electric Valve Actuators	28
E8. Standardized Instrumentation	32
APPENDICES	
Appendix A City Standards	
Appendix B Primary Clarifier Asbestos Report	
Appendix C Primary Clarifier 1 Structural Inspection Report	
Appendix D Pre-purchased Equipment	
Appendix E Test Forms	
Appendix F IO List	
Appendix G Instrumentation List	
Appendix H Process Control Narrative	
Appendix I Alarms and Setpoints	
Appendix J Circular Primary Clarifier Record Drawings	
Appendix K Geotechnical Report	
Appendix L SD-01 Dewatering Press Package	
Appendix M MCC Photographs	
Appendix N Remediation Plan	

PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 NEWPCC PRIMARY CLARIFICATION UPGRADE PROJECT

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 12:00 noon Winnipeg time, March 14, 2025.

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

B3. SITE INVESTIGATION

B3.1 Further to C3.1, the Contract Administrator or an authorized representative will be available a by appointment only to provide Bidders access to the Site.

B3.2 The Bidder is advised to book an appointment to gain access to the Site investigation at least 72 hours in advance by contacting the Contract Administrator (Identified in D6). Directions to the Site and Site access procedures will be provided to the Bidder upon request.

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

B3.4 Personal protective equipment (PPE) in good working condition, including hard hats and safety footwear shall be worn on Site at all times.

B3.5 The Bidder is responsible for inspecting the Site, the nature of the Work to be done and all conditions that might affect their Bid or their performance of the Work, and shall assume all risk for conditions existing or arising in the course of the Work which have been or could have been determined through such inspection.

B4. ENQUIRIES

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

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

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

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

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

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

B5. CONFIDENTIALITY

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

B6. ADDENDA

- B6.1 The Contract Administrator may, at any time prior to the Submission Deadline, issue addenda correcting errors, discrepancies or omissions in the Tender, or clarifying the meaning or intent of any provision therein.
- B6.2 The Contract Administrator will issue each addendum at least two (2) Business Days prior to the Submission Deadline, or provide at least two (2) Business Days by extending the Submission Deadline.
- B6.3 Addenda will be available on the MERX website at www.merx.com.
- B6.4 The Bidder is responsible for ensuring that they have received all addenda and is advised to check the MERX website for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.
- B6.5 The Bidder shall acknowledge receipt of each addendum in Paragraph 10 of Form A: Bid/Proposal. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.
- B6.6 Notwithstanding B4, enquiries related to an Addendum may be directed to the Contract Administrator indicated in D6.

B7. SUBSTITUTES

- B7.1 The Work is based on the Plant, Materials and methods specified in the Tender.
- B7.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.
- B7.3 Substitutes to the City's Standardized Goods, as identified in E6, E7, and E8, will not be accepted.
- B7.4 Requests for approval of a substitute will not be considered unless received in writing by the Contract Administrator at least five (5) Business Days prior to the Submission Deadline.
- B7.5 The Bidder shall ensure that any and all requests for approval of a substitute:
- (a) provide sufficient information and details to enable the Contract Administrator to determine the acceptability of the Plant, Material or method as either an approved equal or alternative;
 - (b) identify any and all changes required in the applicable Work, and all changes to any other Work, which would become necessary to accommodate the substitute;
 - (c) identify any anticipated cost or time savings that may be associated with the substitute;

- (d) certify that, in the case of a request for approval as an approved equal, the substitute will fully perform the functions called for by the general design, be of equal or superior substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance;
 - (e) certify that, in the case of a request for approval as an approved alternative, the substitute will adequately perform the functions called for by the general design, be similar in substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance.
- B7.6 The Contract Administrator, after assessing the request for approval of a substitute, may in their sole discretion grant approval for the use of a substitute as an “approved equal” or as an “approved alternative”, or may refuse to grant approval of the substitute.
- B7.7 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, to the Bidder who requested approval of the substitute.
- B7.7.1 The Contract Administrator will issue an Addendum, disclosing the approved materials, equipment, methods and products to all potential Bidders. The Bidder requesting and obtaining the approval of a substitute shall be responsible for disseminating information regarding the approval to any person or persons they wish to inform.
- B7.8 If the Contract Administrator approves a substitute as an “approved equal”, any Bidder may use the approved equal in place of the specified item.
- B7.9 If the Contract Administrator approves a substitute as an “approved alternative”, any Bidder bidding that approved alternative may base their Total Bid Price upon the specified item but may also indicate an alternative price based upon the approved alternative. Such alternatives will be evaluated in accordance with B18.
- B7.10 No later claim by the Contractor for an addition to the Total Bid Price because of any other changes in the Work necessitated by the use of an approved equal or an approved alternative will be considered.

B8. BID COMPONENTS

- B8.1 The Bid shall consist of the following components:
- (a) Form A: Bid/Proposal;
 - (b) Form B: Prices;
 - (c) Form G1: Bid Bond and Agreement to Bond.
- B8.2 All components of the Bid shall be fully completed or provided, and submitted by the Bidder no later than the Submission Deadline, with all required entries made clearly and completely.
- B8.3 The Bid shall be submitted electronically through MERX at www.merx.com.
- B8.3.1 Bids will **only** be accepted electronically through MERX.
- B8.4 Bidders are advised that inclusion of terms and conditions inconsistent with the Tender document, including the General Conditions, will be evaluated in accordance with B18.1(a).

B9. BID

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

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

B10. PRICES

- B10.1 The Bidder shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.
- B10.1.1 Notwithstanding C12.2.3(c), prices on Form B: Prices shall not include the Manitoba Retail Sales Tax (MRST, also known as PST), which shall be extra where applicable.
- B10.1.2 Prices stated on Form B: Prices shall not include any costs which may be incurred by the Contractor with respect to any applicable funding agreement obligations as outlined in D35. Any such costs shall be determined in accordance with D35.
- B10.2 The quantities listed on Form B: Prices are to be considered approximate only. The City will use said quantities for the purpose of comparing Bids.
- B10.3 The quantities for which payment will be made to the Contractor are to be determined by the Work actually performed and completed by the Contractor, to be measured as specified in the applicable Specifications.
- B10.4 Payments to Non-Resident Contractors are subject to Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).
- B10.5 Form B, Item 6: The Bidder shall enter the cost of the Standardized Goods to be supplied from Schneider Electric Canada Ltd. (Schneider) as part of the Standardized Control System and

Motor Control Equipment agreement identified in E6. The cost shall be the base cost received from Schneider, without any mark-up or taxes applied.

- B10.5.1 Any mark-up to the supply of the Standardized Goods shall be deemed to be included in other applicable Form B lines.
- B10.6 Form B, Item 7: The Bidder shall enter the cost of the Standardized Goods to be supplied from Rotork Control Canada Ltd. (Rotork) as part of the Standardized Electric Valve Actuators agreement identified in E7. The cost shall be the base cost received from Rotork, without any mark-up or taxes applied.
- B10.6.1 Any mark-up to the supply of the Standardized Goods shall be deemed to be included in other applicable Form B lines.
- B10.7 Form B, Item 9: 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 E7. The cost shall be the base cost received from Trans-West, without any mark-up or taxes applied.
- B10.7.1 Any mark-up to the supply of the Standardized Goods shall be deemed to be included in other applicable Form B lines.
- B10.8 The Bidder shall enter the Total Bid Price from Form B: Prices into the Total Bid Price field in MERX.
- B10.8.1 Bidders are advised that the calculation indicated in B18.4 will prevail over the Total Bid Price entered in MERX.

B11. DISCLOSURE

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

B12. CONFLICT OF INTEREST AND GOOD FAITH

- B12.1 Further to C3.2, Bidders, by responding to this Tender, declare that no Conflict of Interest currently exists, or is reasonably expected to exist in the future.
- B12.2 Conflict of Interest means any situation or circumstance where a Bidder or employee of the Bidder proposed for the Work has:
- (a) other commitments;
- (b) relationships;
- (c) financial interests; or
- (d) involvement in ongoing litigation;
- that could or would be seen to:
- (i) exercise an improper influence over the objective, unbiased and impartial exercise of the independent judgment of the City with respect to the evaluation of Bids or award of the Contract; or
- (ii) compromise, impair or be incompatible with the effective performance of a Bidder's obligations under the Contract;
- (e) has contractual or other obligations to the City that could or would be seen to have been compromised or impaired as a result of their participation in the Tender process or the Work; or

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

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

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

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

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

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

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

B13. QUALIFICATION

B13.1 The Bidder shall:

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

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

- (a) be responsible and not be suspended, debarred or in default of any obligations to the City. A list of suspended or debarred individuals and companies is available on the Information

Connection page at The City of Winnipeg, Corporate Finance, Purchasing Division website
<https://www.winnipeg.ca/matmgt/Templates/files/debar.pdf>

- B13.3 The Bidder and/or any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:
- (a) have successfully carried out work similar in nature, scope and value to the Work; and
 - (b) be fully capable of performing the Work required to be in strict accordance with the terms and provisions of the Contract; and
 - (c) have a written workplace safety and health program if required pursuant to The Workplace Safety and Health Act (Manitoba);
 - (d) have completed the Accessible Customer Service online training required by the Accessibility for Manitobans Act (AMA) (see B13.5 and D8).
- B13.4 Further to B13.3(c), the Bidder shall, within five (5) Business Days of a request by the Contract Administrator, provide proof satisfactory to the Contract Administrator that the Bidder/Subcontractor has a workplace safety and health program meeting the requirements of The Workplace Safety and Health Act (Manitoba), by providing:
- (a) Written confirmation of a safety and health certification meeting SAFE Work Manitoba's SAFE Work Certified Standard (e.g., COR™ and SECOR™) in the form of:
 - (i) a copy of their valid Manitoba COR certificate and Letter of Good Standing (or Manitoba equivalency) as issued under the Certificate of Recognition (COR) Program administered by the Construction Safety Association of Manitoba or by the Manitoba Heavy Construction Association's WORKSAFELY™ COR™ Program; or
 - (ii) a copy of their valid Manitoba SECOR™ certificate and Letter of Good Standing (or Manitoba equivalency) as issued under the Small Employer Certificate of Recognition Program (SECOR™) administered by the Construction Safety Association of Manitoba or by the Manitoba Heavy Construction Association's WORKSAFELY™ COR™ Program; or
 - (b) a report or letter to that effect from an independent reviewer acceptable to the City. (A list of acceptable reviewers and the review template are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Purchasing Division website at <http://www.winnipeg.ca/matmgt/>).
- B13.5 Further to B13.3(d), the Bidder acknowledges they and all Subcontractors have obtained training required by the Accessibility for Manitobans Act (AMA) available at [Accessibility Training](#) for anyone that may have any interaction with the public on behalf of the City of Winnipeg.
- B13.6 The Bidder shall submit, within three (3) Business Days of a request by the Contract Administrator, proof satisfactory to the Contract Administrator of the qualifications of the Bidder and of any proposed Subcontractor.
- B13.7 The Bidder shall provide, on the request of the Contract Administrator, full access to any of the Bidder's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Bidder's equipment and facilities are adequate to perform the Work.

B14. BID SECURITY

- B14.1 The Bidder shall include in their Bid Submission bid security in the form of a digital bid bond, in the amount of at least ten percent (10%) of the Total Bid Price, and agreement to bond of a company registered to conduct the business of a surety in Manitoba, in Form G1: Bid Bond and Agreement to Bond, available at [Form G1 Bid Bond & Agreement to Bond](#).
- B14.2 Bid security shall be submitted in a digital format meeting the following criteria:
- (a) The version submitted by the Bidder must have valid digital signatures and seals;

- (b) The version submitted by the Bidder must be verifiable by the City with respect to the totality and wholeness of the bond form, including: the content; all digital signatures and digital seals; with the surety company, or an approved verification service provider of the surety company.
- (c) The version submitted must be viewable, printable and storable in standard electronic file formats compatible with the City, and in a single file. Allowable formats include pdf.
- (d) The verification may be conducted by the City immediately or at any time during the life of the bond and at the discretion of the City with no requirement for passwords or fees.
- (e) The results of the verification must provide a clear, immediate and printable indication of pass or fail regarding B14.2(b).

B14.3 Bonds failing the verification process will not be considered to be valid and the bid shall be determined to be non-responsive in accordance with B18.1(a).

B14.4 Bonds passing the verification process will be treated as original and authentic.

B14.4.1 If the Bidder submits alternative bids, the bid security shall be in the amount of the specified percentage of the highest Total Bid Price submitted.

B14.5 The bid security of the successful Bidder and the next two lowest evaluated responsive and responsible Bidders will be released by the City when a Contract for the Work has been duly formed with the successful Bidder and the contract securities are furnished as provided herein. The bid securities of all other Bidders will be released when a Contract is awarded.

B14.6 The bid securities of all Bidders will be released by the City as soon as practicable following notification by the Contract Administrator to the Bidders that no award of Contract will be made pursuant to the Tender.

B15. OPENING OF BIDS AND RELEASE OF INFORMATION

B15.1 Bids will not be opened publicly.

B15.2 Following the Submission Deadline, the names of the Bidders and their Total Bid Prices (unevaluated and pending review and verification of conformance with requirements) will be available on the MERX website at www.merx.com.

B15.3 After award of Contract, the name(s) of the successful Bidder(s) and their Contract amount(s) will be available on the MERX website at www.merx.com.

B15.4 The Bidder is advised that any information contained in any Bid may be released if required by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law or by City policy or procedures (which may include access by members of City Council).

B15.4.1 To the extent permitted, the City shall treat as confidential information, those aspects of a Bid Submission identified by the Bidder as such in accordance with and by reference to Part 2, Section 17 or Section 18 or Section 26 of The Freedom of Information and Protection of Privacy Act (Manitoba), as amended.

B16. IRREVOCABLE BID

B16.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 11 of Form A: Bid/Proposal.

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

B17. WITHDRAWAL OF BIDS

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

B18. EVALUATION OF BIDS

B18.1 Award of the Contract shall be based on the following bid evaluation criteria:

- (a) compliance by the Bidder with the requirements of the Tender, or acceptable deviation there from (pass/fail);
- (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B13 (pass/fail);
- (c) Total Bid Price;
- (d) economic analysis of any approved alternative pursuant to B7.

B18.2 Further to B18.1(a), the Award Authority may reject a Bid as being non-responsive if the Bid is incomplete, obscure or conditional, or contains additions, deletions, alterations or other irregularities. The Award Authority may reject all or any part of any Bid, or waive technical requirements or minor informalities or irregularities, if the interests of the City so require.

B18.3 Further to B18.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in their Bid or in other information required to be submitted, that they are qualified.

B18.4 Further to B18.1(c), the Total Bid Price shall be the sum of the quantities multiplied by the unit prices for each item shown on Form B: Prices.

B18.4.1 Further to B18.1(a), in the event that a unit price is not provided on Form B: Prices, the City may determine the unit price by dividing the Amount (extended price) by the approximate quantity, for the purposes of evaluation and payment.

B18.4.2 Bidders are advised that the calculation indicated in B18.4 will prevail over the Total Bid Price entered in MERX.

B18.5 Further to B18.1(c), the Award Authority may reject a Bid as being non-responsive if it exceeds the class 1 pre-bid estimate for the Work of \$21,053,000.00.

B19. AWARD OF CONTRACT

B19.1 The City will give notice of the award of the Contract or will give notice that no award will be made.

B19.2 The City will have no obligation to award a Contract to a Bidder, even though one or all of the Bidders are determined to be qualified, and the Bids are determined to be responsive.

B19.2.1 Without limiting the generality of B19.2, the City will have no obligation to award a Contract where:

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

B19.3 If funding for the Work is provided to the City of Winnipeg by the Government of Manitoba and/or the Government of Canada, Bidders are advised that the terms of D35 shall immediately take effect upon confirmation of such funding, regardless of when funding is confirmed.

- B19.4 Where an award of Contract is made by the City, the award shall be made to the qualified Bidder submitting the lowest evaluated responsive Bid, in accordance with B18.
- B19.4.1 Following the award of contract, a Bidder will be provided with information related to the evaluation of their Bid upon written request to the Contract Administrator.

PART C - GENERAL CONDITIONS

C0. GENERAL CONDITIONS

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

PART D - SUPPLEMENTAL CONDITIONS

GENERAL

D1. GENERAL CONDITIONS

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

D2. FORM OF CONTRACT DOCUMENTS

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

D3. SCOPE OF WORK

D3.1 The Work to be done under the Contract shall consist generally of the construction of a Scum Dewatering Building complete with odour control, yard piping, road works, landscaping, and connection to existing structures located at the City of Winnipeg North End Water Pollution Control Centre (NEWPCC). Work also includes upgrades to scum wasting in Primary Clarifiers 1, 2 and 3.

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

- (a) Install piles for the Scum Dewatering Building.
- (b) Construction of concrete structure foundation over piles for the Scum Dewatering Building.
- (c) Construction of the Scum Dewatering Building with associated mechanical, plumbing, HVAC, structural and architectural components, electrical, and instrumentation systems.
- (d) Supply and installation of process, electrical, instrumental and control equipment for the Scum Dewatering Building.
- (e) Supply and install all yard piping, fittings, couplings, transitions, connections, and valves.
- (f) Supply and install odour control system.
- (g) Supply consuming chemical including two (2) 1 m³ totes of liquid cationic polymer.
- (h) Installation of pre-purchased dewatering rotary press (2) inclusive of polymer dosing system (2).
- (i) Complete all site work, site grading, paving, parking areas and Site Utility Work associated with the new facilities and with the general site.
- (j) Replacement and installation of new scum pumps.
- (k) Upgrade to the controls of the primary clarifier (1, 2 and 3) scum troughs.
- (l) All other auxiliary equipment, structures, and systems required to complete the Work.
- (m) Abate, load, transport and dispose of all known hazardous building materials including asbestos, requiring removal to complete the Work, prior to demolition.

D4. SITE INVESTIGATION DUE DILIGENCE AND RISK

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

- (a) the location of any utility which can be determined from the records or other information available at the offices of any public authority or person, including a municipal corporation and any board or commission thereof, having jurisdiction or control over the utility;
- (b) the Site conditions, including but not limited to subsurface hazardous materials or other concealed physical conditions;
- (c) the location, nature, quality or quantity of the materials to be removed or to be employed in the performance of the Work;
- (d) the nature, quality or quantity of the Plant needed to perform the Work;
- (e) all matters concerning access to the Site, power supplies, location of existing services, utilities or materials necessary for the completion of the Work; and
- (f) all other matters which could in any way affect the performance of the Work;

that could not have been “properly inferable”, “readily apparent” and readily discoverable” using Good Industry Practice by the Contractor, results in additional Work which is a direct result of this newly discovered site condition, such additional Work will be considered by the City under Changes in Work.

D5. DEFINITIONS

D5.1 When used in this Tender:

- (a) “**Acceptable**” or “**Acceptance**”, etc. shall be understood to mean acceptable to the Contract Administrator as conforming to the requirements of the Contract Documents;
- (b) “**Approval**” or “**Approved**” etc. shall be understood to mean approved by Authorities having jurisdiction as conforming to Codes, Standards, By-Laws, etc.;
- (c) “**Conflict of Interest**” as defined in B12.2;
- (d) “**Instructions**” or “**As Instructed**” or “**Where Instructed**”, etc. shall be understood to mean as instructed in writing by the Contract Administrator;
- (e) “**Manufacturer**” or “**Manufacturer’s Representative**” means the Person(s) responsible for the manufacture and fabrication of equipment provided to the City for the completion of the Work;
- (f) “**PLC**” means Programmable Logic Controller;
- (g) “**Provide**” shall be understood to include labour, materials, and services necessary to supply, install and make functional the items or Work referenced;
- (h) “**Record Drawings**” means Drawings prepared by the Consultant after verifying in detail the actual conditions of the completed Project;
- (i) “**SCADA**” means Supervisory Control and Data Acquisition;
- (j) “**Standardized Goods**” means the respective goods identified in D11 that have been standardized by the City;
- (k) “**Standardization Vendor**” means a contractor or supplier of Standardized Goods, as identified in D11;
- (l) “**Supplier**” means the Person(s) responsible for the supply of equipment provided to the City for the completion of the Work;
- (m) “**Supply Chain Disruption**” means an inability by the Contractor to obtain goods or services from third parties necessary to perform the Work of the Contract within the schedule specified therein, despite the Contractor making all reasonable commercial efforts to procure same. Contractors are advised that increased costs do not, in and of themselves, amount to a Supply Chain Disruption.

D6. CONTRACT ADMINISTRATOR

D6.1 The Contract Administrator is AECOM, represented by:

K.C. Kiesman, EIT.
Water/Wastewater EIT

Telephone No. 204-430-0563

Email Address kc.kiesman@aecom.com

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

D7. CONTRACTOR'S SUPERVISOR

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

D8. ACCESSIBLE CUSTOMER SERVICE REQUIREMENTS

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

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

D8.1.2 The accessible customer service obligations include, but are not limited to:

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

D9. UNFAIR LABOUR PRACTICES

D9.1 Further to C3.2, the Contractor declares that in bidding for the Work and in entering into this Contract, the Contractor and any proposed Subcontractor(s) conduct their respective business in accordance with established international codes embodied in United Nations Universal Declaration of Human Rights (UDHR) <https://www.un.org/en/about-us/universal-declaration-of-human-rights> International Labour Organization (ILO) [https://www.ilo.org/global/lang--en/index.htm](https://www.ilo.org/global/lang-en/index.htm) conventions as ratified by Canada.

D9.2 The City of Winnipeg is committed and requires its Contractors and their Subcontractors, to be committed to upholding and promoting international human and labour rights, including fundamental principles and rights at work covered by ILO eight (8) fundamental conventions and the United Nations Universal Declaration of Human Rights which includes child and forced labour.

D9.3 Upon request from the Contract Administrator, the Contractor shall provide disclosure of the sources (by company and country) of the raw materials used in the Work and a description of the manufacturing environment or processes (labour unions, minimum wages, safety, etc.).

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

D10. FURNISHING OF DOCUMENTS

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

STANDARDIZATION

D11. STANDARDIZED GOODS

- D11.1 The following goods have been standardized by the City and will be supplied by the Contractor:
- (a) Standardized Control System and Motor Control Equipment as per E6.
 - (b) Standardized Electric Valve Actuators as per E7.
 - (c) Standardized Instrumentation as per E8.

D12. CONTRACTUAL ARRANGEMENT

- D12.1 Each Standardization Vendor shall be a Subcontractor of the Contractor.
- D12.2 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.
- D12.2.1 The City is not a party to any contract between a Standardization Vendor and the Contractor, or any Subcontractor.
- D12.3 In the event that a potential dispute arises between the Contractor and a Standardization Vendor, the Contract Administrator shall be notified.

D13. PAYMENT OF STANDARDIZATION VENDORS

- D13.1 The Contractor is obligated to pay the Standardization Vendors in accordance with general terms of supply applicable to such Standardization Vendor.

- D13.2 The Contractor's payment terms to the Standardization Vendor, in respect of Standardized Control System and Motor Control Equipment identified in E6, include the following:
- D13.2.1 Except as indicated in D13.2.2, payment shall be in Canadian funds net thirty (30) Calendar Days after shipment.
- D13.2.2 Payment for motor control centres shall be in Canadian funds net thirty (30) Calendar Days and initiated based upon the following schedule:
- (a) Upon approval of the shop drawings or forty (40) Calendar Days after the last comprehensive submittal, in the event that a response is not made to the submittal: 25% of the total value.
 - (b) Upon delivery of the complete MCC along with all associated as-manufactured documentation: 60% of the total value; or
 - (c) In the event that the delivery is intentionally delayed, upon request by the Contractor, the following payment schedule would replace the 60% payment:
 - (i) Upon completion of the FAT and delivery of all as-manufactured documentation to the Contractor – 30% of the total value.
 - (ii) Forty (40) Calendar Days after delivery of the as-manufactured documentation to the Contractor, or upon delivery, whichever comes sooner – 30% of the total value.
 - (d) Upon successful commissioning and delivery of documentation or six (6) months after delivery, whichever comes first: 15% of the total value.
- D13.3 The Contractor's payment terms to the Standardization Vendor, in respect of Standardized Electric Valve Actuators identified in E7, include the following:
- D13.3.1 Payment shall be in Canadian funds net thirty (30) Calendar Days after receipt and approval of the Standardization Vendor's invoice.
- D13.4 The Contractor's payment terms to the Standardization Vendor, in respect of Standardized Instrumentation identified in E8, include the following:
- D13.4.1 Payment shall be in Canadian funds net thirty (30) Calendar Days after receipt and approval of the Standardization Vendor's invoice.

SUBMISSIONS

D14. AUTHORITY TO CARRY ON BUSINESS

- D14.1 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.

D15. SAFE WORK PLAN

- D15.1 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.
- D15.2 The Safe Work Plan should be prepared and submitted in the format shown in the City's template which is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Purchasing Division website at <http://www.winnipeg.ca/matmgt/Safety/default.stm>

D15.3 Notwithstanding B13.4 at any time during the term of the Contract, the City may, at their sole discretion and acting reasonably, require an updated COR Certificate or Annual Letter of good Standing. A Contractor, who fails to provide a satisfactory COR Certificate or Annual Letter of good Standing, will not be permitted to continue to perform any Work.

D16. INSURANCE

D16.1 The Contractor shall provide and maintain the following insurance coverage:

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

D16.2 Deductibles shall be borne by the Contractor.

D16.3 The Contractor shall provide the City Solicitor with a certificate(s) of insurance, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Work but in no event later than the date specified in C4.1 for the return of the executed Contract Documents, as applicable.

D16.4 The Contractor shall not cancel, materially alter, or cause each policy to lapse without providing at least thirty (30) Calendar Days prior written notice to the Contract Administrator.

D17. CONTRACT SECURITY

D17.1 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, [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, [Form H2 Labour and Material Bond](#) , in an amount equal to fifty percent (50%) of the Contract Price.

D17.1.1 Where the contract security is a performance bond, it may be submitted in hard copy or digital format. If submitted in digital format the contract security must meet the following criteria:

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

- (d) the verification may be conducted by the City immediately or at any time during the life of the bond and at the discretion of the City with no requirement for passwords or fees.
 - (e) the results of the verification must provide a clear, immediate and printable indication of pass or fail regarding D17.1(b).
- D17.1.2 Digital bonds failing the verification process will not be considered to be valid and may be determined to be an event of default in accordance with C18.1. If a digital bond fails the verification process, the Contractor may provide a replacement bond (in hard copy or digital format) within seven (7) Calendar Days of the City's request or within such greater period of time as the City in their discretion, exercised reasonably, allows.
- D17.1.3 Digital bonds passing the verification process will be treated as original and authentic.
- D17.2 The Contractor shall provide the Contract Administrator identified in D6 with the required performance and labour and material payment bonds within seven (7) Calendar Days of notification of the award of the Contract by way of an award letter and prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract Documents, if applicable.
- D17.3 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 D17.1(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.

D18. SUBCONTRACTOR LIST

- D18.1 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.

D19. DETAILED WORK SCHEDULE

- D19.1 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.
- D19.2 The detailed work schedule shall consist of the following:
 - (a) a Gantt chart showing time on the horizontal axis and tasks on the vertical axis; all acceptable to the Contract Administrator.
- D19.3 Further to D19.2(a), the C.P.M. schedule shall clearly identify the start and completion dates of all of the following activities/tasks making up the Work as well as showing those activities/tasks on the critical path.
 - (a) Site clearing.
 - (b) Excavation.
 - (c) Construction of Scum Dewatering Building foundation.
 - (d) Construction of Scum Dewatering Building structure.
 - (e) Installation of yard piping and connections to the existing Primary Clarifier Control Building.
 - (f) Supply and install process, mechanical and electrical systems in the Scum Dewatering Building.
 - (g) Installation of new scum piping and replacement of scum pumps in the existing Primary Clarifier Control Building.

- (h) Installation of pre-purchased dewatering rotary press.
- (i) Fully tie in scum, filtrate, wash water, potable water and all other necessary flows.
- (j) Commissioning of new facility and performance testing.
- (k) Landscaping and finishing works.

D20. ESTIMATES

- D20.1 The Contractor shall provide the Contract Administrator with copies of the estimates provided by Standardized Vendor identified in E6, E7 and E8.

SCHEDULE OF WORK

D21. COMMENCEMENT

- D21.1 The Contractor shall not commence any Work until they are in receipt of an award letter from the Award Authority authorizing the commencement of the Work.
- D21.2 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 D14;
 - (ii) evidence of the workers compensation coverage specified in C6.15;
 - (iii) the Safe Work Plan specified in D15;
 - (iv) evidence of the insurance specified in D16;
 - (v) the contract security specified in D17;
 - (vi) the Subcontractor list specified in D18;
 - (vii) the detailed work schedule specified in D19; and
 - (viii) the direct deposit application form specified in D31
 - (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.
- D21.3 The City intends to award this Contract by April 18, 2025.
- D21.3.1 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.
- D21.4 The Contractor shall not commence the Work on the Site before May 12, 2025.

D22. SUBSTANTIAL PERFORMANCE

- D22.1 The Contractor shall achieve Substantial Performance by May 31, 2027.
- D22.2 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.
- D22.3 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.

D23. TOTAL PERFORMANCE

- D23.1 The Contractor shall achieve Total Performance by May 31, 2028.

D23.2 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.

D23.3 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.

D24. LIQUIDATED DAMAGES

D24.1 If the Contractor fails to achieve Substantial Performance in accordance with the Contract by the day fixed herein for Substantial Performance, the Contractor shall pay the City one thousand, six hundred dollars (\$1,600.00) per Business Day for each and every Business Day following the day fixed herein for Substantial Performance during which such failure continues.

D24.2 The amount specified for liquidated damages in D24.1 is based on a genuine pre-estimate of the City's damages in the event that the Contractor does not achieve Substantial Performance by the day fixed herein for same.

D24.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

D24.4 For the avoidance of doubt, the above Liquidated Damages represent the City's sole and exclusive remedy for the Contractor's failure to achieve Substantial Performance in accordance with the Contract.

D25. SUPPLY CHAIN DISRUPTION SCHEDULE DELAYS

D25.1 The City acknowledges that the schedule for this Contract may be impacted by Supply Chain Disruption. Commencement and progress of the Work shall be performed by the Contractor with due consideration to the delivery requirements and schedule identified in the Contract, in close consultation with the Contract Administrator.

D25.2 If the Contractor is delayed in the performance of the Work by reason of Supply Chain Disruption, the Work schedule may be adjusted by a period of time equal to the time lost due to such delay and costs related to such delay will be determined as identified herein.

D25.3 A minimum of seven (7) Calendar Days prior to the commencement of Work, the Contractor shall declare whether a Supply Chain Disruption will affect the start date. The Contractor shall provide sufficient evidence that the delay is directly related to a Supply Chain Disruption, including but not limited to evidence related to availability ordering of Material or Goods, production and/or manufacturing schedules or availability of staff as appropriate.

D25.4 For any delay related to suppl chain disruption and identified after Work has commenced, the Contractor shall within seven (7) Calendar Days of becoming aware of the anticipated delay declare the additional delay and shall provide sufficient evidence as indicated in D25.3. Failure to provide this notice will result in no additional time delays being considered by the City.

D25.5 The Work schedule, including the durations identified in D22 to D23 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.

D25.6 Where Work not previously identified is being carried over solely as a result of delays related to Supply Chain Disruption, as confirmed by the Contract Administrator, the cost of temporary works to maintain the Work in a safe manner until Work recommences, will be considered by the Contract Administrator. Where the Work is carried over only partially due to Supply Chain

Disruption, a partial consideration of the cost of temporary works will be considered by the Contract Administrator.

- D25.7 Any time or cost implications as a result of Supply Chain Disruption and in accordance with the above, as confirmed by the Contract Administrator, shall be documented in accordance with C7.

CONTROL OF WORK

D26. JOB MEETINGS

- D26.1 Regular weekly job meetings will be held at the Site. These meetings shall be attended by a minimum of one representative of the Contract Administrator, one representative of the City and one representative of the Contractor. Each representative shall be a responsible person capable of expressing the position of the Contract Administrator, the City and the Contractor respectively on any matter discussed at the meeting including the Work schedule and the need to make any revisions to the Work schedule. The progress of the Work will be reviewed at each of these meetings.
- D26.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever they deem it necessary.
- D26.3 Within fifteen (15) Business Days after award of the Construction Contract, the Contract Administrator will request a preconstruction meeting to discuss and resolve administrative procedures and responsibilities.
- D26.3.1 Location of the preconstruction meeting to be selected by the Contract Administrator.
- D26.3.2 Preconstruction meetings to be attended by:
- (a) Contract Administrator's representatives, including field inspectors;
 - (b) Contractor's representatives;
 - (c) major Subcontractors' representatives; and
 - (d) City's representatives.
- D26.3.3 Preconstruction meeting agenda to include:
- (a) Appointment of official representative of participants in the Work;
 - (b) Schedule of Work;
 - (c) Schedule of submission of Shop Drawings;
 - (d) Delivery schedule of specified equipment or parts;
 - (e) Site security;
 - (f) Proposed changes, change orders, procedures, approvals required, mark-up percentages permitted, time extensions, overtime, administrative requirements;
 - (g) Record drawings;
 - (h) Operating and Maintenance manuals;
 - (i) Take-over procedures, acceptance;
 - (j) Monthly progress claims, administrative procedures, photographs, hold backs;
 - (k) Appointment of inspection and testing agencies or firms; and
 - (l) Insurances, transcript of policies.
- D26.3.4 The Contract Administrator will record meeting minutes for the preconstruction meeting and distribute to team members.
- D26.4 Biweekly job meetings will be held at the Site.
- D26.4.1 The progress of the Work will be reviewed at each regular biweekly job meeting.

- D26.4.2 Biweekly job meetings to be attended by:
- (a) Contract Administrator's representatives, including field inspectors;
 - (b) Contractor's representatives;
 - (c) major Subcontractors' representatives; and
 - (d) City's representatives.
- D26.4.3 Representatives of the Contractor, Subcontractor, and Suppliers attending the meetings will be qualified and authorized to act on behalf of the party each represents.
- D26.4.4 Biweekly job meeting agenda to include:
- (a) Review, approval of minutes of previous meeting;
 - (b) Review of Work progress since previous meeting;
 - (c) Field observations, problems, conflicts;
 - (d) Problems which impede construction schedule;
 - (e) Review of off-site fabrication delivery schedules;
 - (f) Review of pre-purchased equipment delivery schedules;
 - (g) Corrective measures and procedures to regain projected schedule;
 - (h) Revision to construction schedule;
 - (i) Updated Project Schedule and expected progress during succeeding work period;
 - (j) Review submittal schedules;
 - (k) Maintenance of quality standards;
 - (l) Review proposed changes for effect on construction schedule and on completion date; and
 - (m) Other business.
- D26.4.5 The Contract Administrator will record meeting minutes for the biweekly job meetings and distribute to team members.
- D26.5 The Contractor shall arrange a SCADA meeting at least sixty (60) Business Days prior to onsite implementation of SCADA programming.
- D26.5.1 Location of the SCADA meeting to be selected by the Contract Administrator.
- D26.5.2 PCS meeting to be attended by:
- (a) Contractor's Project Manager;
 - (b) Contractor's Start-up Manager;
 - (c) Subcontractors' or suppliers' representatives Contractor may desire to invite, or as Contract Administrator may request;
 - (d) Contract Administrator's representatives;
 - (e) City's representatives.
- D26.5.3 PCS meeting agenda to include:
- (a) PCS software and programming requirements;
 - (b) Detailed testing and commissioning plans and schedules;
 - (c) PCS training of City staff.
- D26.5.4 The Contract Administrator will record meeting minutes for PCS meeting and distribute to team members.

D27. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)

D27.1 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).

D28. THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA) – QUALIFICATIONS

D28.1 Further to B13.4, the Contractor/Subcontractor must, throughout the term of the Contract, have a Workplace Safety and Health Program meeting the requirements of The Workplace Safety and Health Act (Manitoba). At any time during the term of the Contract, the City may, at their sole discretion and acting reasonably, require updated proof of compliance, as set out in B13.4.

D29. REGULATORY REQUIREMENTS

D29.1 References and Codes:

- (a) Conform to all Federal, Provincial, and District Codes, regulations and by laws.
- (b) Perform Work in accordance with the National Building Code of Canada (NBC) including amendments up to the tender closing date and other codes of provincial or local application provided so that in case of conflict or discrepancy, the more stringent requirements apply.
- (c) Meet or exceed requirements of:
 - (i) Contract Documents.
 - (ii) Specified standards, codes, and referenced documents.

D29.1.1 In the event of discrepancies between codes, standards, or other provisions, the most stringent shall apply.

D29.2 Building Smoking Environment:

- (a) Comply with smoking restrictions and municipal by-laws.

MEASUREMENT AND PAYMENT

D30. INVOICES

D30.1 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

D30.2 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.

D30.3 The City will bear no responsibility for delays in approval of invoices which are improperly submitted.

D31. PAYMENT

- D31.1 Further to C12, the City shall make payments to the Contractor by direct deposit to the Contractor's banking institution, and by no other means. Payments will not be made until the Contractor has made satisfactory direct deposit arrangements with the City. Direct deposit application forms are at https://winnipeg.ca/finance/files/Direct_Deposit_Form.pdf.
- D31.2 The City's payment to the Contractor, associated with Standardized Goods, will be in accordance with C12.

WARRANTY

D32. WARRANTY

- D32.1 Warranty is as stated in C13.
- D32.2 Notwithstanding C13.2, the warranty period shall begin on the date of Substantial Performance and shall expire one (1) year thereafter unless extended pursuant to C13.2.1 or C13.2.2, in which case it shall expire when provided for thereunder.
- D32.3 Notwithstanding C13.2 or D32.2, the Contract Administrator may permit the warranty period for a portion or portions of the Work to begin prior to the date of Substantial 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.
- D32.3.1 In such case, the date specified by the Contract Administrator for the warranty period to begin shall be substituted for the date specified in C13.2 for the warranty period to begin.

DISPUTE RESOLUTION

D33. DISPUTE RESOLUTION

- D33.1 If the Contractor disagrees with any opinion, determination, or decision of the Contract Administrator, the Contractor shall act in accordance with the Contract Administrator's opinion, determination, or decision unless and until same is modified by the process followed by the parties pursuant to D33.
- D33.2 The entire text of C21.4 is deleted, and amended to read: "Intentionally Deleted"
- D33.1 The entire text of C21.5 is deleted, and amended to read:
- (a) If Legal Services has determined that the Disputed Matter may proceed in the Appeal Process, the Contractor must, within ten (10) Business Days of the date of the Legal Services Response Letter, submit their written Appeal Form, in the manner and format set out on the City's Purchasing Website, to the Chief Administrative Officer, and to the Contract Administrator. The Contractor may not raise any other disputes other than the Disputed Matter in their Appeal Form.
- D33.2 Further to C21, prior to the Contract Administrator's issuance of a Final Determination, the following informal dispute resolution process shall be followed where the Contractor disagrees with any opinion, determination, or decision of the Contract Administrator ("Dispute"):
- (a) In the event of a Dispute, attempts shall be made by the Contract Administrator and the Contractor's equivalent representative to resolve Disputes within the normal course of project dealings between the Contract Administrator and the Contractor's equivalent representative.
 - (b) Disputes which in the reasonable opinion of the Contract Administrator or the Contractor's equivalent representative cannot be resolved within the normal course of project dealings as described above shall be referred to a without prejudice escalating negotiation process

consisting of, at a minimum, the position levels as shown below and the equivalent Contractor representative levels:

- (i) The Contract Administrator;
- (ii) Supervisory level between the Contract Administrator and applicable Department Head;
- (iii) Department Head.

- D33.3 Names and positions of Contractor representatives equivalent to the above City position levels shall be determined by the Contractor and communicated to the City at the pre-commencement or kick off meeting.
- D33.4 As these negotiations are not an adjudicative hearing, neither party may have legal counsel present during the negotiations.
- D33.5 Both the City and the Contractor agree to make all reasonable efforts to conduct the above escalating negotiation process within twenty (20) Business Days, unless both parties agree, in writing, to extend that period of time.
- D33.6 If the Dispute is not resolved to the City and Contractor's mutual satisfaction after discussions have occurred at the final escalated level as described above, or the time period set out in D33.5, as extended if applicable, has elapsed, the Contract Administrator will issue a Final Determination as defined in C1.1(v), at which point the parties will be governed by the Dispute Resolution process set out in C21.

INDEMNITY

D34. INDEMNITY

- D34.1 Indemnity shall be as stated in C17.
- D34.2 Notwithstanding C17.1, the Contractor shall save harmless and indemnify the City in the amount of twice the Contract Price or five million dollars (\$5,000,000), whichever is greater, against all costs, damages or expenses arising from actions, claims, demands and proceedings, by whomsoever brought, made or taken as a result of negligent acts or negligent omissions of the Contractor, their Subcontractors, employees or agents in the performance or purported performance of the Work, and more particularly from:
- (a) accidental injury to or death of any person whether retained by or in the employ of the contractor or not, arising directly or indirectly by reason of the performance of the Work, or by reason of any trespass on or damage to property;
 - (b) damage to any property owned in whole or in part by the City, or which the City by duty or custom is obliged, directly or indirectly, in any way or to any degree, to construct, repair or maintain;
 - (c) damage to, or trespass or encroachment upon, property owned by persons other than the City;
 - (d) any claim for lien or trust claim served upon the City pursuant to The Builders' Liens Act;
 - (e) failure to pay a Workers Compensation assessment, or Federal or Provincial taxes;
 - (f) unauthorized use of any design, device, material or process covered by letters patent, copyright, trademark or trade name in connection with the Work;
 - (g) inaccuracies in any information provided to the City by the Contractor.
- D34.3 Further to C17, The City shall save harmless and indemnify the Contractor in the amount of twice the Contract Price or five million dollars (\$5,000,000), whichever is greater, against all costs, damages or expenses arising from actions, claims, demands and proceedings, by whomsoever brought, made or taken as a result of negligent acts or negligent omissions of the City, their employees or agents in the performance of its obligation under the Contract.

THIRD PARTY AGREEMENTS

D35. FUNDING AND/OR CONTRIBUTION AGREEMENT OBLIGATIONS

- D35.1 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.
- D35.2 Further to D35.1, in the event that the obligations in D35 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.
- D35.3 For the purposes of D35:
- (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.
- D35.4 Modified Insurance Requirements
- D35.4.1 If not already required under the insurance requirements identified in D16, 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 their Ministers, officers, employees, and agents shall be added as additional insureds.
- D35.4.2 If not already required under the insurance requirements identified in D16, 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.
- D35.4.3 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.
- D35.4.4 Further to D16.3, insurers shall provide satisfactory Certificates of Insurance to the Government of Manitoba prior to commencement of Work as written evidence of the insurance required. The Certificates of Insurance must provide for a minimum of thirty (30) days' prior written notice to the Government of Manitoba in case of insurance cancellation.
- D35.4.5 All policies must be taken out with insurers licensed to carry on business in the Province of Manitoba.
- D35.5 Indemnification By Contractor
- D35.5.1 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.

- D35.5.2 The Contractor agrees that in no event will Canada or Manitoba, their respective officers, servants, employees or agents be held liable for any damages in contract, tort (including negligence) or otherwise, for:
- (a) any injury to any person, including, but not limited to, death, economic loss or infringement of rights;
 - (b) any damage to or loss or destruction of property of any person; or
 - (c) any obligation of any person, including, but not limited to, any obligation arising from a loan, capital lease or other long term obligation;
- in relation to this Contract or the Work.
- D35.6 Records Retention and Audits
- D35.6.1 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.
- D35.6.2 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 D35.6.1 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.
- D35.7 Other Obligations
- D35.7.1 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.
- D35.7.2 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.
- D35.7.3 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.
- D35.7.4 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.
- D35.7.5 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.

D35.7.6 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.

PART E - SPECIFICATIONS

GENERAL

E1. APPLICABLE SPECIFICATIONS AND DRAWINGS

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

SECTION NO.	TITLE	NO. OF PAGES
	DIVISION 01	
01 11 00	Summary of Work	5
01 14 00	Work Restrictions	2
01 25 00	Substitution Procedures	6
01 29 83	Payment Procedures for Testing Services	2
01 31 19	Project Meetings	4
01 32 16.07	Progress Schedule	4
01 32 33	Construction Photographs	3
01 33 00	Submittal Procedures	13
01 35 43	Environmental Procedures	6
01 40 00	Measurement and Payment	9
01 41 00	Regulatory Requirements	1
01 45 00	Quality Control	5
01 51 00	Temporary Utilities	3
01 52 00	Construction Facilities	8
01 56 00	Temporary Barriers and Enclosures	2
01 60 10	Materials and Equipment	3
01 61 00	Common Product Requirements	4
01 65 00	Equipment Installation	7
01 65 00.05	Installation of Pre-Purchased Equipment	6
01 71 00	Examination and Preparation	2
01 73 00	Execution	2
01 74 11	Cleaning	2
01 74 19	Construction Waste Management Disposal	3
01 78 00	Closeout Submittals	8

SECTION NO.	TITLE	NO. OF PAGES
01 78 23	Operation and Maintenance Data	11
01 79 00	Demonstration and Training	9
01 91 31	Commissioning Plan	18
	DIVISION 02	
02 41 13	Selective Site Demotion	4
02 61 00.01	Soil Remediation	5
02 81 01	Hazardous Materials	5
02 82 11	Asbestos Abatement – Type 1	6
02 82 12	Asbestos Abatement – Type 2	7
02 82 13	Asbestos Abatement – Type 3	18
	DIVISION 03	
03 10 00	Concrete Forming and Accessories	5
03 15 00	Concrete Accessories	4
03 20 00	Concrete Reinforcing	3
03 30 00	Cast-In-Place Concrete	9
03 41 01	Hollow Core Precast/Prestressed Concrete	5
03 53 00	Concrete Topping	3
	DIVISION 04	
04 05 00	Common Work Results For Masonry	4
04 05 12	Masonry Mortaring	2
04 05 19	Masonry Reinforcement, Connectors and Accessories	5
04 22 00	Concrete Unit Masonry	6
	DIVISION 05	
05 12 23	Structural Steel for Buildings	7
05 50 00	Metal Fabrications	5
05 58 01	Aluminum Fabrications	4
	DIVISION 06	
06 10 00	Rough Carpentry	2
06 60 00	Plastic Fabrications	2
	DIVISION 07	
07 11 00	Dampproofing	3
07 21 00	Thermal Insulation and Below Slab Vapour Barrier	2
07 21 20	Rigid Insulation and Air/Vapour Barrier	3
07 21 50	Sprayed Polyurethane Foam Insulation	4
07 42 13.23	Metal Composite Material Wall Panels	11
07 46 00	Sheet Metal Wall Cladding	3
07 52 00	Modified Bituminous Membrane Roofing	9
07 62 00	Sheet Metal Flashing and Trim	2
07 72 33	Roof Hatches	3
07 84 00	Firestopping	3
07 92 00	Joint Sealants	3
	DIVISION 08	
08 11 00	Metal Doors and Frames	5
08 33 50	Coiling Doors	6
08 51 13	Aluminum Windows	3
08 71 00	Door Hardware	5

SECTION NO.	TITLE	NO. OF PAGES
08 80 00	Glazing	4
	DIVISION 09	
09 29 00	Gypsum Board	2
09 91 00	Painting	7
09 91 10	Factory-Applied Coatings	3
09 91 13	Field-Applied Maintenance and Corrosion Protection Coatings	8
09 97 23	Concrete and Masonry Coatings	6
	DIVISION 10	
10 14 13	Identification	5
10 43 00	Exterior Signage	1
10 44 00	Interior Signage	1
	DIVISION 21	
21 05 01	Common Work Results for Mechanical	17
21 05 50	Seismic Restraint Systems	10
21 24 00	Portable Fire Extinguishers	2
	DIVISION 22	
22 10 10	Plumbing Pumps	4
22 11 16	Domestic Water Piping	8
22 13 18	Drainage Waste and Vent Piping	4
22 15 00	Compressed Air Systems	6
22 42 01	Plumbing Specialties and Accessories	8
22 42 03	Commercial Plumbing Fixtures	6
	DIVISION 23	
23 05 05	Installation of Pipework	6
23 05 17	Pipe Welding	4
23 05 17.01	Sleeves and Sleeve Seals for HVAC Piping	6
23 05 19.01	Thermometers and Pressure Gauge - Piping Systems	2
23 05 23.01	Valves - Bronze	4
23 05 23.02	Valves - Cast Iron	5
23 05 29	Hangers and Supports for Piping and Equipment	7
23 05 48	Vibration Controls for HVAC Piping & Equipment	4
23 05 53	Mechanical Identification	7
23 05 93.10	Testing	5
23 05 93.20	Testing, Adjusting and Balancing for HVAC	17
23 07 13	Duct Insulation	6
23 07 15	Thermal Insulation for Piping	8
23 08 01	Performance Verification Mechanical Piping Systems	3
23 08 02	Cleaning and Start-Up of Mechanical Piping Systems	4
23 09 23.11	Control Valves	15
23 09 33	Electric and Electronic Control System for HVAC	9
23 09 93.11	Sequence of Operations for HVAC DDC	9
23 21 13.02	Hydronic Systems: Steel	5
23 21 14	Hydronic Specialties	5
23 21 23	Hydronic Pumps	6
23 23 00	Refrigerant Piping	4
23 31 13	Metal Ducts - Low Pressure to 500 PA	6

SECTION NO.	TITLE	NO. OF PAGES
23 33 00	Air Duct Accessories	5
23 33 14	Dampers - Balancing	4
23 33 15	Dampers - Control	6
23 33 16	Dampers - Fire and Smoke	4
23 34 00	Fans and Accessories	5
23 37 13	Diffusers, Registers, and Grilles	4
23 37 20	Louvers, Intakes, and Vents	3
23 57 00	Heat Exchangers for HVAC	4
23 72 00	Air-to-Air Energy Recovery Equipment	12
23 73 11	Air Handling and Condensing Units - Split	9
23 74 00	Packaged Make-up Air Units	7
23 82 39	Hydronic Heating Units	6
	DIVISION 26	
26 05 00	Common Work Results - Electrical	17
26 05 20	Wire and Box Connectors (0-1000 V)	4
26 05 21	Wire and Cables (0-1000 V)	22
26 05 28	Grounding	13
26 05 29	Hangers and Supports for Electrical Systems	8
26 05 31	Splitters, Junction, Pull Boxes and Cabinets	5
26 05 32	Outlet Boxes, Conduit Boxes and Fittings	6
26 05 34	Conduits, Conduit Fastenings, and Conduit Fittings	18
26 05 36	Cable Trays for Electrical Systems	12
26 05 44	Installation of Cables in Trenches and Ducts	7
26 05 80	Fractional Horsepower Motors	3
26 05 81	Motors - 0.746 kW to 149 kW	11
26 05 95	Heat Tracing	17
26 08 05	Acceptance Testing	35
26 12 16	Dry Type Transformers up to 600 V Primary	8
26 12 19	Pad-Mounted Medium Voltage (MV) Transformers	20
26 24 17	Panelboards – Breaker Type	4
26 24 19	Motor Control Centres	16
26 27 26	Wiring Devices	4
26 28 16.02	Moulded Case Circuit Breakers	2
26 28 23	Disconnect Switches Fused and Non-Fused up to 600 V Primary	3
26 29 03	Control Devices	3
26 29 10	Motor Starters to 600 V	4
26 29 23	Variable Frequency Drives	6
26 41 13	Lightning Protection for Structures	7
26 50 00	Lighting	4
26 52 13.13	Emergency Lighting	4
26 52 13.16	Exit Signs	2
	DIVISION 31	
31 09 16.29	Pile Tests - Dynamic	4
31 23 19	Dewatering of Excavations	3
31 23 23	Excavation and Backfill for Structures	5
31 50 00	Excavation Support Systems	8

SECTION NO.	TITLE	NO. OF PAGES
31 62 16.16	Steel H Piles	8
	DIVISION 32	
32 11 13	Earth Work	2
32 11 16	Sub-Base Material	1
32 11 23	Base Material	1
32 11 26	Asphaltic Concrete Paving	2
32 13 13	Portland Cement Concrete Paving	2
32 16 00	Concrete Walks, Curbs, and Gutters	1
	DIVISION 33	
33 05 05	Excavation, Trenching, and Backfilling	2
32 42 11	Land Drainage Sewer	2
32 42 11.01	Manholes and Catchbasins	1
32 42 11.02	Adjustment of Existing Manhole / Catchbasin	1
33 44 00	Pressure Pipeline	8
	DIVISION 34	
34 78 33	Davit Crane	3
	DIVISION 40	
40 05 01	Common Work Results	4
40 05 13	Process Piping	13
40 05 13.01	Detailed Piping Specification	6
40 05 15	Process Pipe Joints and Equipment Connections	8
40 05 20	Process Pipe Guides and Anchors	4
40 05 23	Process Valves	7
40 05 24	Detailed Process Valve Specification Sheets	13
40 05 25	Valve Schedule	6
40 05 30	Process Pipe Expansion Joints	4
40 05 60	Process Pipeline Appurtenances	5
40 05 80	Process Pipe Hangers and Supports	11
40 23 13.03	Electric Motor Actuators and Appurtenances	11
40 23 19	Stainless Steel Pipe and Fittings	7
40 42 00	Process Piping and Equipment Insulation	4
40 61 93	IO List	1
40 61 98	Instrument Index	1
40 70 03	Process Taps and Primary Elements	1
40 90 00	Instrumentation and Control for Process Systems	15
40 90 01	Field Services	2
40 90 21	Automation Wires and Cables	14
40 91 01	Automation – Process Measurement Devices	20
40 94 43	Programmable Logic Controllers and Remote IO	6
40 95 13	Control Panels	10
40 95 34	Control System Servers and Workstations	7
40 95 53	Network Equipment	10
40 95 80	Fibre Optic Network	18
40 96 00	Applications Software	13
40 99 91	FAT and SIFT Procedures	8
40 99 92	Automation Testing and Commissioning	7

SECTION NO.	TITLE	NO. OF PAGES
40 99 93	Maintenance and Support	2
	DIVISION 41	
41 12 13.37	Bin Covers	14
41 22 13	Overhead and Monorail Trolleys	8
41 24 40	Steel Platform Truck Weigh Scales Equipment and Component Numbers	6
	DIVISION 43	
43 20 10	Process Pumps - General Requirements	7
43 21 00	Process Equipment Installation	5
43 21 30	Chemical Supply	2
43 21 39	Submersible Pumps	7
43 21 39A	Equipment Data Sheets	1
43 23 13.18	Horizontal Dry Pit Chopper Pump	7
43 23 13.18A	Equipment Data Sheets	2
43 23 13.19	Pedestal Dry Pit Chopper Pump	6
43 23 13.19A	Equipment Data Sheet	2
	DIVISION 44	
44 31 00	Skid Mounted Carbon Adsorption Odour Control System	18
44 31 10	Odour Control Ductwork and Accessories	10
	DIVISION 46	
46 21 00	General Process Provisions	6

<u>Appendix No.</u>	<u>Title</u>
Appendix A	City of Winnipeg Standards
Appendix B	Primary Clarifier Asbestos Report
Appendix C	Primary Clarifier 1 Structural Condition Assessment
Appendix D	Pre-purchased Equipment
Appendix E	Test Forms
Appendix F	IO List
Appendix G	Instrumentation List
Appendix H	Process Control Narrative
Appendix I	Alarms and Setpoints
Appendix J	Circular Primary Clarifiers Record Drawing
Appendix K	Geotechnical Report
Appendix L	SD-01 Dewatering Press Package
Appendix M	MCC Photographs
Appendix N	Remediation Plan

DRAWING PACKAGE	DRAWING NUMBER	TITLE
	GENERAL	
1 of 3	1-0101-DAAA-A003-001	COVER PAGE
1 of 3	1-0101-DAAA-A004-001	DRAWING INDEX
1 of 3	1-0101-DAAA-A004-002	DRAWING INDEX
1 of 3	1-0101-DAAA-A004-003	DRAWING INDEX
1 of 3	1-0101-PDTL-A001-001	STANDARD DETAILS
1 of 3	1-0101-PDTL-A001-002	STANDARD DETAILS
1 of 3	1-0101-PDTL-A001-003	STANDARD DETAILS
1 of 3	1-0101-PDTL-A001-004	STANDARD DETAILS

DRAWING PACKAGE	DRAWING NUMBER	TITLE
1 of 3	1-0101-PDTL-A001-005	STANDARD DETAILS
1 of 3	1-0101-MAAA-A000-001	LEGEND
1 of 3	1-0101-MDTL-A001-001	DETAILS AND SCHEMATICS
1 of 3	1-0101-MDTL-A001-002	DETAILS AND SCHEMATICS
1 of 3	1-0101-MDTL-A001-003	DETAILS AND SCHEMATICS
1 of 3	1-0101-MDTL-A001-003	DETAILS AND SCHEMATICS
1 of 3	1-0101-PAAA-A002-001	PROCESS & INSTRUMENTATION
1 of 3	1-0101-PAAA-A002-002	PROCESS & INSTRUMENTATION
1 of 3	1-0101-PAAA-A002-003	PROCESS & INSTRUMENTATION
1 of 3	1-0101-EAAA-A001-001	ELECTRICAL SYMBOLS
1 of 3	1-0101-EAAA-A701-001	LEGEND
1 of 3	1-0101-EDTL-A001-001	TRENCHING DETAIL
1 of 3	1-0101-EDTL-A002-001	GROUNDING DETAIL
1 of 3	1-0101-EDTL-A003-001	CABLE TRAY DETAIL
1 of 3	1-0101-EDTL-A004-001	DETAILS
1 of 3	1-0101-EDTL-A005-001	DETAILS
1 of 3	1-0101-EDTL-A006-001	DETAILS
1 of 3	1-0101-EDTL-A007-001	DETAILS
1 of 3	1-0101-ADTL-P001-001	INSTRUMENT INSTALLATION DETAILS
1 of 3	1-0101-ADTL-P001-002	DETAIL
1 of 3	1-0101-ADTL-P001-003	DETAIL
1 of 3	1-0101-ADTL-P001-004	DETAIL
1 of 3	1-0101-ANET-A008-001	BLOCK DIAGRAM NETWORK ARCHITECTURE AREA P
	SITE – DEMOLITION	
1 of 3	1-0101-ECTR-PD01-001	PRIMARY CLARIFICATION CABLE ROUTING DEMOLITION
1 of 3	1-0101-ECTR-PD02-001	CABLE ROUTING DEMOLITION
	SITE – GENERAL	
1 of 3	1-0101-CLYT-Y002-001	EXISTING SITE PLAN
1 of 3	1-0101-CLYT-Y003-001	CONTRACTOR LAYDOWN AREAS
1 of 3	1-0101-CGAD-Y001-001	REMOVALS SITE PLAN GRADING, ROAD WORKS & UTILITIES
1 of 3	1-0101-CRSW-Y016-001	PROPOSED SITE PLAN GRADING & ROAD WORKS
1 of 3	1-0101-CUTY-Y012-001	PROPOSED SITE PLAN UNDERGROUND PIPING
1 of 3	1-0101-CUTY-Y013-001	LAND DRAINAGE PLAN & PROFILE
1 of 3	1-0101-ECTR-A001-001	PRIMARY CLARIFICATION AND SCUM DEWATERING CABLE ROUTING

DRAWING PACKAGE	DRAWING NUMBER	TITLE
1 of 3	1-0101-ECTR-A002-001	XFMR-P7011 & XFMR-P7012 TRANSFORMER LAYOUT AND CONCRETE PAD
1 of 3	1-0101-ECTR-A003-001	XFMR-P7011 & XFMR-P7012 POWER ROUTING
1 of 3	1-0101-ECTR-A004-001	XFMR-P7011 & XFMR-P7012 SITE GROUNDING
1 of 3	1-0101-EGRD-A001-001	GROUNDING CONDUCTOR ROUTING
1 of 3	1-0101-AUTY-A002-001	FIBRE BACKBONE ROUTING
	ELECTRICAL FACILITY	
1 of 3	1-0101-ECTR-E006-001	ELECTRICAL BUILDING - MAIN FLOOR CABLE TRAY LAYOUT AND SECTIONS
1 of 3	1-0101-ECTR-E008-002	ELECTRICAL BUILDING - MAIN FLOOR 600 VAC,125 VDC AND CONTROL CABLE TRAY LAYOUT
1 of 3	1-0101-ECTR-E009-001	ELECTRICAL BUILDING CABLE TRAY SECTIONS
1 of 3	1-0101-ECTR-E009-002	ELECTRICAL BUILDING CABLE TRAY SECTIONS
1 of 3	1-0101-EGRD-E002-001	ELECTRICAL BUILDING PLAN AND SECTION GROUNDING (EMBEDDED GRID)
1 of 3	1-0101-EGRD-E004-001	ELECTRICAL BUILDING - BASEMENT AND MAIN FLOOR GROUNDING
1 of 3	1-0101-ECBD-E003-001	SGR-E7210 AND SGR-E7220 SWITCHGEAR ELEVATION
1 of 3	1-0101-ESLD-E001-001	SWITCHING DIAGRAM 4160V AND 600V ELECTRICAL DISTRIBUTION
1 of 3	1-0101-ESLD-E004-001	SINGLE LINE DIAGRAM 4120V DISTRIBUTION
1 of 3	1-0101-EWDG-E001-001	DC ELEMENTARY WIRING DIAGRAM MULTIFUNCTION RELAY PROTECTION
1 of 3	1-0101-EWDG-E002-001	DC ELEMENTARY WIRING DIAGRAM MULTIFUNCTION RELAY PROTECTION
	GRIT REMOVAL BUILDING	
1 of 3	1-0101-ECTR-G001-001	CABLE TRAY LAYOUT ELECTRICAL ROOM BASEMENT
1 of 3	1-0101-ECTR-G002-001	GRIT REMOVAL BUILDING BASEMENT CABLE ROUTING
1 of 3	1-0101-ECTR-G003-001	GRIT BUILDING CABLE ROUTING
	PRIMARY CLARIFICATION FACILITY - DEMOLITION	
1 of 3	1-0101-PGAD-PD01-001	OVERALL DEMOLITION PLAN
1 of 3	1-0101-PGAD-PD02-001	CONTROL CHAMBER BUILDING LOWER LEVEL DEMOLITION PLAN & DETAILS
1 of 3	1-0101-PGAD-PD03-001	PRIMARY CLARIFIERS 4 & 5 SCUM SYSTEMS DEMOLITION PLAN & DETAILS
1 of 3		
1 of 3	1-0101-MGAD-PD01-001	CONTROL CHAMBER BUILDING DEMOLITION PLAN
1 of 3		
1 of 3	1-0101-EGRD-PD01-001	GROUNDING DEMOLITION PRIMARY CLARIFIER BUILDING
1 of 3	1-0101-ESLD-PD01-001	SINGLE LINE DIAGRAM MCC-1P - DEMOLITION
1 of 3	1-0101-ESLD-PD02-001	SINGLE LINE DIAGRAM MCC-2P - DEMOLITION
1 of 3	1-0101-ESLD-GD01-001	SINGLE LINE DIAGRAM PRE-AERATION AND GRIT BUILDING - DEMOLITION

DRAWING PACKAGE	DRAWING NUMBER	TITLE
1 of 3	1-0101-PPID-PD01-001	CONTROL CHAMBER & CONDUITS DEMOLITION
1 of 3	1-0101-PPID-PD02-001	PRIMARY CLARIFIERS 1-3 DEMOLITION
1 of 3	1-0101-PPID-PD03-001	PRIMARY CLARIFIER 4 DEMOLITION
1 of 3	1-0101-PPID-PD04-001	PRIMARY CLARIFIER 5 DEMOLITION
1 of 3	1-0101-PPID-PD05-001	PRIMARY CLARIFIERS 1-3 SLUDGE SYSTEM DEMOLITION
1 of 3	1-0101-PPID-PD06-001	PRIMARY CLARIFIER 4 SLUDGE SYSTEM DEMOLITION
1 of 3	1-0101-PPID-PD07-001	PRIMARY CLARIFIER 5 SLUDGE SYSTEM DEMOLITION
1 of 3	1-0101-PPID-PD08-001	SLUDGE METERING SYSTEM DEMOLITION
1 of 3	1-0101-PPID-PD09-001	PRIMARY CLARIFIERS 1-3 SCUM SYSTEM DEMOLITION
1 of 3	1-0101-PPID-PD10-001	PRIMARY CLARIFIERS 4 & 5 SCUM SYSTEM DEMOLITION
1 of 3	1-0101-PPID-PD11-001	PRIMARY CLARIFIER 4 & 5 SCUM PUMPS DEMOLITION
1 of 3	1-0101-PPID-PD12-001	FLUSHING WATER PIPING DEMOLITION
	PRIMARY CLARIFICATION FACILITY – GENERAL	
1 of 3	1-0101-PPFD-P101-001	PROCESS FLOW DIAGRAM - PRIMARY SCUM SYSTEM
1 of 3	1-0101-PGAD-P001-001	LOWER LEVEL OVERALL PLAN
1 of 3	1-0101-PGAD-P002-001	MAIN LEVEL OVERALL PLAN
1 of 3	1-0101-ECTR-P001-001	PRIMARY CLARIFIER BUILDING BASEMENT CABLE ROUTING
1 of 3	1-0101-ECBD-P101-001	PANEL LAYOUT GROUND FAULT DETECTION PANEL EDP-P7010
1 of 3	1-0101-ACBD-P103-001	PANEL LAYOUT HVAC CONTROL PANEL
1 of 3	1-0101-EWDG-P001-001	GROUND FAULT DETECTION WIRING EDP-P7010
1 of 3	1-0101-EWDG-P002-001	GROUND FAULT DETECTION WIRING CONTROL WIRING
1 of 3	1-0101P-A0086-001	FLUSHING WATER PIPING UPGRADES
1 of 3	1-0101-PPID-P001-001	SCUM DEWATERING BUILDING COMPRESSED AIR SYSTEM
1 of 3		
1 of 3	1-0101-ACBD-P001-001	PANEL LAYOUT NP-P9000 PRIMARY CLARIFICATION NETWORK PATCH PANEL
1 of 3	1-0101-ACBD-P003-001	PANEL LAYOUT NP-P9901 SCUM DEWATERING NETWORK PANEL
1 of 3	1-0101-ACBD-P101-001	PRIMARY CLARIFIER CONTROL PANEL CP-P8001
	PRIMARY CLARIFICATION SYSTEM	
1 of 3	1-0101-PGAD-P003-001	CONTROL CHAMBER BUILDING PLANS
1 of 3	1-0101-PGAD-P004-001	BUILDING SECTIONS
1 of 3	1-0101-PGAD-P301-001	SCUM TANKS 1A & 1B ENLARGED PLAN & DETAILS
1 of 3	1-0101-PGAD-P005-001	SCUM TANK 2 ENLARGED PLAN & SECTIONS
1 of 3	1-0101-PGAD-P006-001	SCUM TANK 2 ENLARGED SECTIONS

DRAWING PACKAGE	DRAWING NUMBER	TITLE
1 of 3	1-0101-PPID-P101-001	CONTROL CHAMBER & CONDUITS - UPGRADES
1 of 3	1-0101-PPID-P102-001	PRIMARY CLARIFIERS 1-3 UPGRADES
1 of 3	1-0101-PPID-P103-001	PRIMARY CLARIFIER 4 UPGRADES
1 of 3	1-0101-PPID-P104-001	PRIMARY CLARIFIER 5 UPGRADES
1 of 3	1-0101-MGAD-P601-001	CONTROL CHAMBER BUILDING FLOOR PLANS
1 of 3	1-0101-EGAD-P001-001	GENERAL ARRANGEMENT CONTROL CHAMBER BUILDING ELEC AND SCUM ROOM PLAN
1 of 3	1-0101-ESLD-P002-001	SINGLE LINE DIAGRAM MCC-P0731 (MCC-1P)
1 of 3	1-0101-ESLD-P003-001	SINGLE LINE DIAGRAM MCC-P0732 (MCC-2P)
1 of 3		
1 of 3	1-0101-AGAD-P004-001	CONTROL CHAMBER BUILDING SCUM ROOM INSTRUMENT LOCATION PLANS
1 of 3	1-0101-AGAD-P005-001	PRIMARY CLARIFIERS 1-3 INSTRUMENT LOCATION PLANS
1 of 3	1-0101-AGAD-P006-001	PRIMARY CLARIFIERS 4 & 5 PUMP GALLERY INSTRUMENT LOCATION PLANS
	PRIMARY SLUDGE SYSTEM	
1 of 3	1-0101-PPID-P201-001	PRIMARY CLARIFIERS 1-3 SLUDGE SYSTEM UPGRADES
1 of 3	1-0101-PPID-P203-001	PRIMARY CLARIFICATION 4 SLUDGE SYSTEM UPGRADES
1 of 3	1-0101-PPID-P202-001	PRIMARY CLARIFIER 5 SLUDGE SYSTEM UPGRADES
1 of 3	1-0101P-A0069-001	SLUDGE METERING SYSTEM UPGRADES
	PRIMARY SCUM SYSTEM / SCUM DEWATERING BUILDING	
1 of 3	1-0101-SFDW-P001-001	PILING PLAN
1 of 3	1-0101-SGAD-P001-001	LOWER LEVEL PLAN
1 of 3	1-0101-SGAD-P002-001	MAIN FLOOR FRAMING PLAN MAIN FLOOR CMU WALLS PLAN
1 of 3	1-0101-SGAD-P003-001	SECOND FLOOR FRAMING PLAN SECOND FLOOR CMU WALLS PLAN
1 of 3	1-0101-SGAD-P004-001	MECHANICAL PLATFORM FRAMING
1 of 3	1-0101-SGAD-P005-001	ROOF FRAMING PLAN PENTHOUSE FRAMING PLAN
1 of 3	1-0101-SGAD-P006-001	PENTHOUSE FRAMING PLAN
1 of 3	1-0101-SGAD-P007-001	FRAMING ELEVATIONS
1 of 3	1-0101-SGAD-P007-002	FRAMING ELEVATIONS
1 of 3	1-0101-SGAD-P007-003	FRAMING ELEVATIONS
1 of 3	1-0101-SGAD-P010-001	SECTIONS
1 of 3	1-0101-SGAD-P010-002	SECTION
1 of 3	1-0101-SGAD-P010-003	SECTION
1 of 3	1-0101-SGAD-P010-004	SECTIONS
1 of 3	1-0101-SGAD-P010-005	SECTIONS
1 of 3	1-0101-SGAD-P010-006	SECTIONS
1 of 3	1-0101-SGAD-P010-007	SECTIONS

DRAWING PACKAGE	DRAWING NUMBER	TITLE
1 of 3	1-0101-SGAD-P011-001	SECTIONS
1 of 3	1-0101-SGAD-P011-002	SECTIONS
1 of 3	1-0101-SGAD-P012-001	WALL SECTIONS
1 of 3	1-0101-SGAD-P014-001	DETAILS
1 of 3	1-0101-SGAD-P014-002	DETAILS
1 of 3	1-0101-SGAD-P014-003	DETAILS
1 of 3	1-0101-SGAD-P016-001	STAIR 1 PLANS
1 of 3	1-0101-SGAD-P016-002	STAIR 1 PLANS
1 of 3	1-0101-SGAD-P016-003	STAIR 1 PLANS
1 of 3	1-0101-SGAD-P016-004	STAIR 1 PLANS
1 of 3	1-0101-SGAD-P017-001	STAIR 1 SECTIONS
1 of 3	1-0101-SGAD-P018-001	STAIR DETAILS
1 of 3	1-0101-SGAD-P019-001	STAIR 2 PLANS
1 of 3	1-0101-SGAD-A020-001	STAIR 2 SECTION
1 of 3	1-0101-SGAD-A021-001	MONORAIL DETAILS
1 of 3	1-0101-SGAD-P015-001	EMBED WEAR PLATES
1 of 3	1-0101-SGAD-P015-002	DETAILS
1 of 3	1-0101-SDTL-A002-001	STANDARD BACKFILL DETAILS
1 of 3	1-0101-SDTL-A001-001	STANDARD DETAILS
1 of 3	1-0101-SDTL-A001-002	STANDARD DETAILS
1 of 3	1-0101-SDTL-A001-003	STANDARD DETAILS
1 of 3	1-0101-SAAA-A002-001	GENERAL NOTES
1 of 3	1-0101-SSCH-A001-001	SCHEDULES
2 of 3	1-0101-BGAD-P001-001	LIFE SAFETY PLAN
2 of 3	1-0101-BGAD-P002-001	BASEMENT PLAN MAIN FLOOR PLAN
2 of 3	1-0101-BGAD-P003-001	SECOND FLOOR PLAN ROOF PLAN
2 of 3	1-0101-BGAD-P004-001	BASEMENT REFLECTED CEILING PLAN
2 of 3	1-0101-BGAD-P005-001	MAIN FLOOR REFLECTED CEILING PLAN SECOND FLOOR REFLECTED CEILING PLAN
2 of 3	1-0101-BGAD-P006-001	EXTERIOR ELEVATIONS
2 of 3	1-0101-BGAD-P008-001	SECTION
2 of 3	1-0101-BGAD-P008-002	SECTION
2 of 3	1-0101-BGAD-P008-003	SECTION
2 of 3	1-0101-BGAD-P009-001	SECTIONS
2 of 3	1-0101-BGAD-P009-002	SECTIONS
2 of 3	1-0101-BGAD-P009-003	SECTIONS
2 of 3	1-0101-BGAD-P009-004	SECTIONS
2 of 3	1-0101-BGAD-P010-001	SECTIONS
2 of 3	1-0101-BGAD-P012-001	WALL SECTIONS
2 of 3	1-0101-BGAD-P012-002	WALL SECTIONS
2 of 3	1-0101-BGAD-P012-003	WALL SECTIONS
2 of 3	1-0101-BGAD-P015-001	DETAILS
2 of 3	1-0101-BGAD-P016-001	FIRESTOP DETAILS

DRAWING PACKAGE	DRAWING NUMBER	TITLE
2 of 3	1-0101-BDTL-A001-001	STANDARD DETAILS
2 of 3	1-0101-BDTL-A001-002	STANDARD DETAILS
2 of 3	1-0101-BAAA-A001-001	GENERAL NOTES
2 of 3	1-0101-BSCH-P001-001	SCHEDULES
2 of 3	1-0101-BSCH-P001-002	SCHEDULES
2 of 3	1-0101-PGAD-P307-001	SCUM DEWATERING BUILDING LOWER LEVEL & MAIN LEVEL PLANS
2 of 3	1-0101-PGAD-P308-001	SCUM DEWATERING BUILDING UPPER LEVEL PLAN
2 of 3	1-0101-PGAD-P309-001	SCUM DEWATERING BUILDING BUILDING SECTIONS
2 of 3	1-0101-PGAD-P309-002	SCUM DEWATERING BUILDING BUILDING SECTIONS
2 of 3	1-0101-PGAD-P311-001	SCP ROTARY PRESSES ENLARGED PLANS & SECTIONS
2 of 3	1-0101-PGAD-P312-001	FOUL AIR FANS & PROCESS DRAIN LIFT STATION ENLARGED PLANS & SECTIONS
2 of 3	1-0101-PGAD-P313-001	ENLARGED PLAN AND SECTION
2 of 3	1-0101-MGAD-P602-001	LOWER LEVEL PLUMBING & HVAC FLOOR PLAN
2 of 3	1-0101-MGAD-P603-001	MAIN LEVEL PLUMBING & HVAC FLOOR PLAN
2 of 3	1-0101-MGAD-P604-001	SECOND LEVEL PLUMBING & HVAC FLOOR PLAN
2 of 3	1-0101-MGAD-P605-001	LOWER LEVEL VENTILATION PLAN
2 of 3	1-0101-MGAD-P606-001	MAIN LEVEL VENTILATION PLAN
2 of 3	1-0101-MGAD-P607-001	SECOND LEVEL VENTILATION PLAN
2 of 3	1-0101-MGAD-P608-001	ROOF HVAC PLAN
2 of 3	1-0101-MGAD-P609-001	SECTIONS
2 of 3	1-0101-MGAD-P609-002	SECTIONS
2 of 3	1-0101-MSCH-P601-001	PLUMBING SCHEDULES
2 of 3	1-0101-MSCH-P601-001	HVAC SCHEDULES
2 of 3	1-0101-MPFD-P601-001	AIR FLOW SCHEMATIC
2 of 3	1-0101-PPID-P301-001	SCUM TANKS 1A & 1B UPGRADES
2 of 3	1-0101-PPID-P302-001	SCUM TRANSFER PUMPS 1 & 2 UPGRADES
2 of 3	1-0101-PPID-P303-001	SCUM TANK 2 UPGRADES
2 of 3	1-0101-PPID-P304-001	SCUM TRANSFER PUMPS 3 & 4 UPGRADES
2 of 3	1-0101-PPID-P305-001	PRIMARY SCUM DEWATERING SYSTEM 1 TK-P3311 & RP-P3312
2 of 3	1-0101-PPID-P306-001	PRIMARY SCUM DEWATERING SYSTEM 2 TK-P3321 & RP-P3322
2 of 3	1-0101-PPID-P002-001	PROCESS DRAIN SYSTEM
2 of 3	1-0101-PPID-P307-001	SCUM DEWATERING POLYMER SYSTEM LCP - 3410
2 of 3	1-0101-MPID-P605-001	SCUM BUILDING PLUMBING SYSTEM
2 of 3	1-0101-MPID-P601-001	SCUM BUILDING - BASEMENT HYDRONIC SYSTEM
2 of 3	1-0101-MPID-P602-001	SCUM BUILDING HYDRONIC SYSTEM
2 of 3	1-0101-MPID-P603-001	SCUM BUILDING - 2ND LEVEL HYDRONIC SYSTEM

DRAWING PACKAGE	DRAWING NUMBER	TITLE
2 of 3	1-0101-MPID-P604-001	SCUM DEWATERING BUILDING HVAC - ERV #1
2 of 3	1-0101-MPID-P604-002	SCUM DEWATERING BUILDING HVAC - ERV #2
2 of 3	1-0101-MPID-P604-003	SCUM DEWATERING BUILDING HVAC - MAU
2 of 3	1-0101-MPID-P604-004	SCUM DEWATERING BUILDING HVAC - AHU
2 of 3	1-0101-MPID-P606-001	SCUM DEWATERING BUILDING GAS DETECTION
2 of 3	1-0101-MPID-P901-001	SCUM DEWATERING BUILDING SECURITY AND MISCELLANEOUS
2 of 3	1-0101-ECTR-P701-001	SCUM DEWATERING BUILDING - LOWER LEVEL CABLE TRAY PLAN
2 of 3	1-0101-ECTR-P702-001	SCUM DEWATERING BUILDING - MAIN LEVEL CABLE TRAY PLAN
2 of 3	1-0101-ECTR-P703-001	SCUM DEWATERING BUILDING - SECOND LEVEL CABLE TRAY PLAN
2 of 3	1-0101-EFAS-P001-001	SCUM DEWATERING BUILDING - LOWER LEVEL FIRE ALARM AND SECURITY PLAN
2 of 3	1-0101-EFAS-P002-001	SCUM DEWATERING BUILDING - MAIN LEVEL FIRE PLAN AND SECURITY PLAN
2 of 3	1-0101-EFAS-P003-001	SCUM DEWATERING BUILDING - SECOND LEVEL FIRE ALARM AND SECURITY PLAN
2 of 3	1-0101-EGAD-P002-001	SCUM DEWATERING BUILDING - LOWER LEVEL POWER PLAN
2 of 3	1-0101-EGAD-P003-001	SCUM DEWATERING BUILDING - MAIN LEVEL POWER PLAN
2 of 3	1-0101-EGAD-P004-001	SCUM DEWATERING BUILDING - SECOND LEVEL POWER PLAN
2 of 3	1-0101-EHLC-P003-001	SCUM DEWATERING BUILDING - OVERALL HAZARDOUS LOCATION PLAN
2 of 3	1-0101-ELTG-P701-001	SCUM DEWATERING BUILDING - LOWER LEVEL LIGHTING PLAN
2 of 3	1-0101-ELTG-P702-001	SCUM DEWATERING BUILDING - MAIN LEVEL LIGHTING PLAN
2 of 3	1-0101-ELTG-P703-001	SCUM DEWATERING BUILDING - SECOND LEVEL LIGHTING PLAN
2 of 3	1-0101-ECBD-P001-001	MCC ELEVATION MCC-P0731 (MCC-1P) & MCC-P0732 (MCC-2P)
2 of 3	1-0101-ECBD-P701-001	SCUM DEWATERING BUILDING - MCC ELEVATION MCC-P0733 & MCC-P0734
2 of 3	1-0101-ACBD-P104-001	PANEL LAYOUT SCUM DEWATERING CONTROL PANEL
2 of 3	1-0101-EMCL-P301-001	MOTOR STARTER SCHEMATICS SCP PUMP P-P3211
2 of 3	1-0101-EMCL-P302-001	MOTOR STARTER SCHEMATICS SCP PUMP P-P3212
2 of 3	1-0101-EMCL-P303-001	MOTOR STARTER SCHEMATICS SCP PUMP P-P3213
2 of 3	1-0101-EMCL-P304-001	MOTOR STARTER SCHEMATICS SCP PUMP P-P3221
2 of 3	1-0101-EMCL-P305-001	MOTOR STARTER SCHEMATICS SCP PUMP P-P3222
2 of 3	1-0101-EMCL-P306-001	MOTOR STARTER SCHEMATICS SCP PUMP P-P3223
2 of 3	1-0101-EMCL-P307-001	MOTOR STARTER SCHEMATICS PD PUMP P-P3501
2 of 3	1-0101-EMCL-P308-001	MOTOR STARTER SCHEMATICS PD PUMP P-P3502
2 of 3	1-0101-EMCL-P501-001	MOTOR STARTER SCHEMATICS GRINDER PUMP P-P5200

DRAWING PACKAGE	DRAWING NUMBER	TITLE
2 of 3	1-0101-EMCL-P601-001	MOTOR STARTER SCHEMATICS HOT WATER PUMP P-P6610
2 of 3	1-0101-EMCL-P602-001	MOTOR STARTER SCHEMATICS HOT WATER PUMP P-P6620
2 of 3	1-0101-EMCL-P603-001	MOTOR STARTER SCHEMATICS GYCOL CIRCULATION PUMP P-P6630
2 of 3	1-0101-EMCL-P604-001	MOTOR STARTER SCHEMATICS GYCOL CIRCULATION PUMP P-P6640
2 of 3	1-0101-ESLD-P708-001	SCUM DEWATERING BUILDING - SINGLE LINE DIAGRAM MCP-P0733
2 of 3	1-0101-ESLD-P709-001	SCUM DEWATERING BUILDING - SINGLE LINE DIAGRAM MCC-P7034
2 of 3	1-0101-ESCH-P701-001	SCUM DEWATERING BUILDING - MCC SCHEDULE MCC-P7033 & MCC-P7034
2 of 3	1-0101-ESCH-P701-002	SCUM DEWATERING BUILDING - MCC SCHEDULE MCC-P7033 & MCC-P7034
2 of 3	1-0101-ESCH-P702-001	SCUM DEWATERING BUILDING - PANELBOARD SCHEDULE PNL-P7003 & PNL-P7004
2 of 3	1-0101P-E0039-001	PRIMARY CLARIFIER - PANELBOARD SCHEDULE PNL-E
2 of 3	1-0101P-E0039-002	PRIMARY CLARIFIER-PANELBOARD SCHEDULE PNL-D
2 of 3	1-0101-ESCH-P706-001	LIGHTING SCHEDULES
2 of 3	1-0101-ESCY-P001-001	SCUM DEWATERING BUILDING - BUILDING ELECTRICAL DETAILS - RISERS
2 of 3	1-0101-AGAD-P001-001	SCUM DEWATERING BUILDING - LOWER LEVEL INSTRUMENT LOCATION PLAN
2 of 3	1-0101-AGAD-P002-001	SCUM DEWATERING BUILDING - MAIN LEVEL INSTRUMENT LOCATION PLAN
2 of 3	1-0101-AGAD-P003-001	SCUM DEWATERING BUILDING - SECOND LEVEL INSTRUMENT LOCATION PLAN
2 of 3	1-0101-ACBD-P311-001	PANEL LAYOUT PUMP VFD PANEL
2 of 3	1-0101-ACBD-P805-001	JUNCTION BOX LAYOUT TYPICAL FOR SWITCHES CONTACTS
2 of 3	1-0101-ACBD-P806-001	JUNCTION BOX LAYOUT TYPICAL FOR GAS DETECTOR CONTROLLER OUTPUTS
2 of 3	1-0101-ACBD-P807-001	JUNCTION BOX LAYOUT TYPICAL FOR PROFIBUS PA SEGMENT PROTECTORS
2 of 3	1-0101-ACBD-P808-001	JUNCTION BOX LAYOUT TYPICAL FOR ON/OFF SCHISCHEK ACTUATOR
2 of 3	1-0101-ACBD-P809-001	JUNCTION BOX LAYOUT TYPICAL FOR MODULATING SCHISCHEK ACTUATOR
2 of 3	1-0101-ACBD-P810-001	JUNCTION BOX LAYOUT TYPICAL FOR UNIT HEATER CONTACTS
2 of 3	1-0101-ACBD-P811-001	JUNCTION BOX LAYOUT TYPICAL FOR BIN PRESENCE SENSOR
2 of 3	1-0101-ANET-E002-001	COMMUNICATION SYSTEM ELECTRICAL BUILDING
2 of 3	1-0101-ANET-P002-001	FIBRE RISER NP-P9900
2 of 3	1-0101-ANET-P804-001	SCUM DEWATERING MCC-P7033 & MCC-P7034 NETWORK DIAGRAM
2 of 3	1-0101-ANET-P101-001	PRIMARY CLARIFIERS PLC DEVICE NETWORK
2 of 3	1-0101-ANET-P801-001	FIBRE RISER NP-P9901

DRAWING PACKAGE	DRAWING NUMBER	TITLE
2 of 3	1-0101-ANET-P801-002	FIBRE RISER NP-P9901
2 of 3	1-0101-ANET-P802-001	SCUM DEWATERING PANEL CP-8030 NETWORK DIAGRAM
2 of 3	1-0101-ANET-P803-001	SCUM DEWATERING PANEL CP-8040 NETWORK DIAGRAM
2 of 3	1-0101-AWDG-P101-001	PRIMARY DISTRIBUTION SCHEMATIC - PRIMARY CLARIFIERS, CONTROL PANEL CP-P8001
2 of 3	1-0101-AWDG-P101-002	PRIMARY DISTRIBUTION SCHEMATIC - PRIMARY CLARIFIERS, CONTROL PANEL CP-P8001
2 of 3	1-0101-AWDG-P001-001	AUTOMATION NETWORK PANEL CONNECTION DIAGRAM NP-P9900
2 of 3	1-0101-AWDG-P002-001	AUTOMATION NETWORK PANEL CONNECTION DIAGRAM NP-P9901
2 of 3	1-0101-AWDG-P003-001	AUTOMATION POWER DISTRIBUTION SCHEMATIC HVAC PANEL CP-P8040
2 of 3	1-0101-AWDG-P002-002	AUTOMATION POWER DISTRIBUTION SCHEMATIC HVAC PANEL CP-P8040
2 of 3	1-0101-AWDG-P004-001	AUTOMATION PRIMARY CLARIFIER SCUM DEWATERING CONTROL PANEL CP-P8030
2 of 3	1-0101-AWDG-P818-001	CP-P8040 IO MODULE WIRING DIAGRAM DISCRETE INPUT - 24VDC RACK:0 MODULE:4
2 of 3	1-0101-AWDG-P818-002	CP-P8040 IO MODULE WIRING DIAGRAM DISCRETE INPUT - 24VDC RACK:0 MODULE:4
2 of 3	1-0101-AWDG-P819-001	CP-P8040 IO MODULE WIRING DIAGRAM DISCRETE INPUT - 24VDC RACK:0 MODULE:5
2 of 3	1-0101-AWDG-P819-002	CP-P8040 IO MODULE WIRING DIAGRAM DISCRETE INPUT - 24VDC RACK:0 MODULE:5
2 of 3	1-0101-AWDG-P820-001	CP-P8040 IO MODULE WIRING DIAGRAM DISCRETE INPUT - 24VDC RACK:0 MODULE:6
2 of 3	1-0101-AWDG-P820-002	CP-P8040 IO MODULE WIRING DIAGRAM DISCRETE INPUT - 24VDC RACK:0 MODULE:6
2 of 3	1-0101-AWDG-P821-001	CP-P8040 IO MODULE WIRING DIAGRAM DISCRETE INPUT - 24VDC RACK:0 MODULE:7
2 of 3	1-0101-AWDG-P821-002	CP-P8040 IO MODULE WIRING DIAGRAM DISCRETE INPUT - 24VDC RACK:0 MODULE:7
2 of 3	1-0101-AWDG-P822-001	CP-P8040 IO MODULE WIRING DIAGRAM DISCRETE INPUT - 24VDC RACK:0 MODULE:8
2 of 3	1-0101-AWDG-P823-001	CP-P8040 IO MODULE WIRING DIAGRAM DISCRETE INPUT - 24VDC RACK:0 MODULE:9
2 of 3	1-0101-AWDG-P824-001	CP-P8040 IO MODULE WIRING DIAGRAM DISCRETE INPUT - 24VDC RACK:0 MODULE:10
2 of 3	1-0101-AWDG-P825-001	CP-P8040 IO MODULE WIRING DIAGRAM ANALOG INPUT - LOOP POWERED RACK:1 MODULE:1
2 of 3	1-0101-AWDG-P826-001	CP-P8040 IO MODULE WIRING DIAGRAM ANALOG INPUT - LOOP POWERED RACK:1 MODULE:2
2 of 3	1-0101-AWDG-P827-001	CP-P8040 IO MODULE WIRING DIAGRAM ANALOG INPUT - LOOP POWERED RACK:1 MODULE:3
2 of 3	1-0101-AWDG-P828-001	CP-P8040 IO MODULE WIRING DIAGRAM ANALOG INPUT - LOOP POWERED RACK:1 MODULE:4
2 of 3	1-0101-AWDG-P829-001	CP-P8040 IO MODULE WIRING DIAGRAM ANALOG INPUT LOOP POWERED RACK:1 MODULE:5
2 of 3	1-0101-AWDG-P830-001	CP-P8040 IO MODULE WIRING DIAGRAM ANALOG INPUT LOOP POWERED RACK :1 MODULE:6

DRAWING PACKAGE	DRAWING NUMBER	TITLE
2 of 3	1-0101-AWDG-P831-001	CP-P8040 IO MODULE WIRING DIAGRAM ANALOG INPUT - ISOLATED RACK:1 MODULE:7 & 8
2 of 3	1-0101-AWDG-P831-002	CP-P8040 IO MODULE WIRING DIAGRAM ANALOG INPUT - ISOLATED RACK:2 MODULE:9 & 10
2 of 3	1-0101-AWDG-P832-001	IOMODULE WIRING DIAGRAM CP-P8001 DISCRETE INPUT - 24VDC RACK:1 MODULE:9
2 of 3	1-0101-AWDG-P833-001	CP-P8001 IO MODULE WIRING DIAGRAM DISCRETE INPUT - 24VDC RACK:1 MODULE:10
2 of 3	1-0101-AWDG-P833-002	CP-P8001 IO MODULE WIRING DIAGRAM DISCRETE INPUT - 24VDC RACK:1 MODULE:10
2 of 3	1-0101-AWDG-P834-001	CP-P8001 IO MODULE WIRING DIAGRAM DISCRETE OUTPUT - 24VDC RACK:1 MODULE:11
2 of 3	1-0101-AWDG-P835-001	CP-P8001 IO MODULE WIRING DIAGRAM DISCRETE OUTPUT - 24VDC RACK:1 MODULE:5
2 of 3	1-0101-AWDG-P836-001	CP-P8030 IO MODULE WIRING DIAGRAM DISCRETE INPUT - 24VDC RACK:1 MODULE:1
2 of 3	1-0101-AWDG-P836-002	CP-P8030 IO MODULE WIRING DIAGRAM DISCRETE INPUT - 24VDC RACK:1 MODULE:1
2 of 3	1-0101-AWDG-P837-001	CP-P8030 IO MODULE WIRING DIAGRAM DISCRETE INPUT - 24 VDC RACK:1 MODULE:2
2 of 3	1-0101-AWDG-P837-002	CP-P8030 IO MODULE WIRING DIAGRAM DIGITAL INPUT -24 VDC
2 of 3	1-0101-AWDG-P838-001	CP-P8030 IO MODULE WIRING DIAGRAM DIGITAL OUTPUT - 24 VDC RACK:1 MODULE:3
2 of 3	1-0101-AWDG-P839-001	CP-P8040 IO MODULE WIRING DIAGRAM ANALOG INPUT - ISOLATED RACK:1 MODULE:4
2 of 3	1-0101-AWDG-P832-002	IO MODULE WIRING DIAGRAM CP-P8001 DISCRETE INPUT - 24VDC RACK:1 MODULE:9
		ODOR CONTROL SYSTEM
2 of 3	1-0101-PPID-P501-001	FOUL AIR SYSTEM
2 of 3	1-0101-PPID-P502-001	PRIMARY CLARIFIER ODOR CONTROL SYSTEM LCP - P5200
3 of 3	1-0101-AILD-P300-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM LIMIT SWITCH ZS-P11111, ZS-P11211, ZS-P11311
3 of 3	1-0101-AILD-P301-001	PRIMARY CLARIFIERS - LOOP DIAGRAM FSW VALVE XV-P31102
3 of 3	1-0101-AILD-P302-001	PRIMARY CLARIFIERS - LOOP DIAGRAM SCUM TANK 1A FSW VALVE XV-P31112
3 of 3	1-0101-AILD-P303-001	PRIMARY CLARIFIERS - LOOP DIAGRAM SCUM TANK 1B FSW VALVE XV-P32122
3 of 3	1-0101-AILD-P304-001	PRIMARY CLARIFIERS - LOOP DIAGRAM P-P3211 INTAKE FSW VALVE XV-P32112
3 of 3	1-0101-AILD-P305-001	PRIMARY CLARIFIERS - LOOP DIAGRAM P-P3212 INTAKE FSW VALVE XV-P32121
3 of 3	1-0101-AILD-P306-001	PRIMARY CLARIFIERS - LOOP DIAGRAM P-P3213 INTAKE FSW VALVE XV-P32132
3 of 3	1-0101-AILD-P307-001	PRIMARY CLARIFIERS - LOOP DIAGRAM SCUM TANK 1 FSW VALVE XV-P32211
3 of 3	1-0101-AILD-P308-001	PRIMARY CLARIFIERS - LOOP DIAGRAM SCUM TANK 2 FSW VALVE XV-P32212

DRAWING PACKAGE	DRAWING NUMBER	TITLE
3 of 3	1-0101-AILD-P309-001	PRIMARY CLARIFIERS - LOOP DIAGRAM P-P3222 FSW VALVE XV-P32223
3 of 3	1-0101-AILD-P310-001	PRIMARY CLARIFIERS - LOOP DIAGRAM P-P3223 FSW VALVE XV-P32233
3 of 3	1-0101-AILD-P311-001	PRIMARY CLARIFIERS - LOOP DIAGRAM CONTROL CHAMBER OUTER RING XV-P35011
3 of 3	1-0101-AILD-P312-001	PRIMARY CLARIFIERS - LOOP DIAGRAM CONTROL CHAMBER INNER RING XV-P35012
3 of 3	1-0101-AILD-P313-001	PRIMARY CLARIFIERS - LOOP DIAGRAM CONTROL CHAMBER OUTER RING XV-P35021
3 of 3	1-0101-AILD-P314-001	PRIMARY CLARIFIERS - LOOP DIAGRAM CONTROL CHAMBER INNER RING XV-P35022
3 of 3	1-0101-AILD-P711-001	PRIMARY CLARIFIERS - LOOP DIAGRAM NGR FAULT MONITORS
3 of 3	1-0101-AIFS-P003-001	PRIMARY CLARIFIERS - PROFIBUS SEGMENT NP-P9900
3 of 3	1-0101-AIFS-P004-001	PRIMARY CLARIFIERS - PROFIBUS SEGMENT NP-P9900
3 of 3	1-0101-AIFS-P005-001	PRIMARY CLARIFIERS - PROFIBUS SEGMENT NP-P9900
3 of 3	1-0101-AIFS-P001-001	SCUM DEWATERING BUILDING - PROFIBUS SEGMENT NP-P9901
3 of 3	1-0101-AIFS-P001-002	SCUM DEWATERING BUILDING - PROFIBUS SEGMENT NP-P9901
3 of 3	1-0101-AILD-P315-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM POLYMER FOR ROTARY PRESS 1 XV-P34112
3 of 3	1-0101-AILD-P316-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM POLYMER FOR ROTARY PRESS 2 XV-P34122
3 of 3	1-0101-AILD-P317-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM LIFT STATION HIGH HIGH LEVEL SWITCH LSHH-P35003
3 of 3	1-0101-AILD-P318-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM PRESSURE SWITCH ALARMS PAL-P01103, PAL-P01203
3 of 3	1-0101-AILD-P319-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM FLUSH WATER FROM DISTRIBUTION XV-P34144
3 of 3	1-0101-AILD-P320-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM PLUMBING, FSL-51101, FSL-51201
3 of 3	1-0101-AILD-P321-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM PLUMBING, LSH-P52001
3 of 3	1-0101-AILD-P322-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM ZS-P34132-1, ZS-P34132-2, ZS-P34232-1, ZS-P34232-2,
3 of 3	1-0101-AILD-P323-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM ZL-P34134, ZL-P34234
3 of 3	1-0101-AILD-P601-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM GAS DETECTOR CONTROLLER GDC-P6910
3 of 3	1-0101-AILD-P602-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM AIT-P69011, AIT-69012
3 of 3	1-0101-AILD-P603-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM AIT-69013, AIT-69014
3 of 3	1-0101-AILD-P604-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM AIT-69015, AIT-69016
3 of 3	1-0101-AILD-P605-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM GAS ALARMS AAH-69020, AAH-69030, AAH-69040
3 of 3	1-0101-AILD-P606-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC-ERV1, AHU-P6100
3 of 3	1-0101-AILD-P606-002	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC-ERV1, AHU-P6100

DRAWING PACKAGE	DRAWING NUMBER	TITLE
3 of 3	1-0101-AILD-P606-003	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC-ERV1, AHU-P6100
3 of 3	1-0101-AILD-P607-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM XV-P61001
3 of 3	1-0101-AILD-P608-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM XV-P61002
3 of 3	1-0101-AILD-P609-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM DPT-P61007, FIT-P61004, TT-P61005
3 of 3	1-0101-AILD-P610-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM TV-P61006
3 of 3	1-0101-AILD-P611-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC-ERV2, AHU-P6200
3 of 3	1-0101-AILD-P611-002	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC-ERV2, AHU-P6200
3 of 3	1-0101-AILD-P611-003	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC-ERV2, AHU-P6200
3 of 3	1-0101-AILD-P612-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC-ERV2, XV-P62001
3 of 3	1-0101-AILD-P613-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC-ERV2, XV-P62002
3 of 3	1-0101-AILD-P614-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC-ERV2, TV-P62004
3 of 3	1-0101-AILD-P615-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC-MAU, AHU-P6300
3 of 3	1-0101-AILD-P615-002	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC-MAU, AHU-P6300
3 of 3	1-0101-AILD-P616-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC-MAU, TT-P63005
3 of 3	1-0101-AILD-P617-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC-MAU, TV-P63004
3 of 3	1-0101-AILD-P618-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC-AHU, AHU-P6400
3 of 3	1-0101-AILD-P618-002	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC-AHU, AHU-P6400
3 of 3	1-0101-AILD-P619-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC-AHU, DPT-P64007, TT-P64005
3 of 3	1-0101-AILD-P620-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC-AHU, TV-64006
3 of 3	1-0101-AILD-P621-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC-AHU, TV-64008
3 of 3	1-0101-AILD-P624-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC-HYDRONIC, LSL-66911
3 of 3	1-0101-AILD-P625-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC HYDRONIC, TT-P66001, TT-67000, TT-66003, PIT-P66004, TT-P66005
3 of 3	1-0101-AILD-P626-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC HYDRONIC, TV-66002
3 of 3	1-0101-AILD-P627-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC HYDRONIC, TT-P66513, TSL-P66512, UH-P6651
3 of 3	1-0101-AILD-P627-002	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC HYDRONIC, XV-P66511
3 of 3	1-0101-AILD-P627-003	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC HYDRONIC, TSL-P66522, UH-P6652

DRAWING PACKAGE	DRAWING NUMBER	TITLE
3 of 3	1-0101-AILD-P627-004	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC HYDRONIC, XV-66521
3 of 3	1-0101-AILD-P628-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC HYDRONIC, STAIRS B-001, TSL-P66702, HTR-P6670
3 of 3	1-0101-AILD-P628-002	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC HYDRONIC, STAIRS B-001, XV-P66701
3 of 3	1-0101-AILD-P629-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC HYDRONIC, STAIRS B-002, TT-66503, TSL-P66502, UH-6650
3 of 3	1-0101-AILD-P629-002	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC HYDRONIC, STAIRS B-002, XV-P66501
3 of 3	1-0101-AILD-P630-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM POLYMER ROOM M-103, TT-P66533, TSL-P66532, UH-P6653
3 of 3	1-0101-AILD-P630-002	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC HYDRONIC, POLYMER ROOM M-103, XV-P66531
3 of 3	1-0101-AILD-P630-003	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC HYDRONIC, POLYMER ROOM M-103, TSL-P66542, UH-P6654
3 of 3	1-0101-AILD-P630-004	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC HYDRONIC, POLYMER ROOM M-103, XV-P66541
3 of 3	1-0101-AILD-P631-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC HYDRONIC, STAIRS M-104, TSL-P66732, HTR-P6673
3 of 3	1-0101-AILD-P631-002	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC HYDRONIC, STAIRS M-104, XV-P66731
3 of 3	1-0101-AILD-P632-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC HYDRONIC, STAIRS M-101, TSL-P66712, HTR-P6671
3 of 3	1-0101-AILD-P632-002	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC HYDRONIC, STAIRS M-101, XV-P66711
3 of 3	1-0101-AILD-P633-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC HYDRONIC, STAIRS 2-201, TT-66723, TSL-P66722, UH-P6672
3 of 3	1-0101-AILD-P633-002	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC HYDRONIC, STAIRS 2-201, XV-P66721
3 of 3	1-0101-AILD-P634-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC HYDRONIC, LOADING BAY M-100, TT-66553, TSL-P66552, UH-P6655
3 of 3	1-0101-AILD-P634-002	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC HYDRONIC, LOADING BAY M-100, XV-P66551
3 of 3	1-0101-AILD-P634-003	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC HYDRONIC, LOADING BAY M-100, TSL-P66562, UH-P6656
3 of 3	1-0101-AILD-P634-004	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC HYDRONIC, LOADING BAY M-100, XV-P66561
3 of 3	1-0101-AILD-P635-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC HYDRONIC, STAIRS 2-203, TT-66743, TSL-P66742, HTR-P6674
3 of 3	1-0101-AILD-P635-002	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC HYDRONIC, STAIRS 2-203, XV-P66741
3 of 3	1-0101-AILD-P636-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC HYDRONIC, STAIRS 2-200, TT-P66573, TSL-P66572, UH-P6657
3 of 3	1-0101-AILD-P636-002	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC HYDRONIC, STAIRS 2-200, XV-P66571

DRAWING PACKAGE	DRAWING NUMBER	TITLE
3 of 3	1-0101-AILD-P636-003	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC HYDRONIC, STAIRS 2-200, TSL-P66582, UH-P6658
3 of 3	1-0101-AILD-P636-004	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC HYDRONIC, STAIRS 2-200, XV-P66581
3 of 3	1-0101-AILD-P637-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC HYDRONIC, MECH. ROOM 2-202, TT-66593, TSL-66592, UH-6659
3 of 3	1-0101-AILD-P637-002	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC HYDRONIC, MECH. ROOM 2-202, XV-P66591
3 of 3	1-0101-AILD-P638-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM HEAT TRACE TC-71100, TC-71200
3 of 3	1-0101-AILD-P901-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM DOOR SWITCHES ZSC-P91010, ZSC-P91020, ZSC-P91030, ZSC-P92010
3 of 3	1-0101-AILD-P902-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM DOOR SWITCHES ZSC-P92020, ZSC-P92030, ZSC-P92040, ZSC-P92050
3 of 3	1-0101-AILD-P903-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM MS-P95201, MS-P95202, ZS-P95006, ZS-P95007
3 of 3	1-0101-AILD-P904-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM OCCUPANCY TIME OUT AA-P93000, AA-P94000
3 of 3	1-0101-AILD-P905-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM SMOKE DETECTORS FAD-P78501, FAD-P78502, FAD-P78503
3 of 3	1-0101-AILD-P906-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM SMOKE AND HEAT DETECTORS FAD-P78551, FAD-P78504, FAD-P78505
3 of 3	1-0101-AILD-P907-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM SMOKE DETECTORS FAD-P78506, FAD-P78507, FAD-P78508
3 of 3	1-0101-AILD-P908-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM SMOKE DETECTORS FAD-P78509, FAD-P78510, FAD-P78511
3 of 3	1-0101-AILD-P909-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM STROBE AND HORN AAH-P96020, AAH-P96030
3 of 3	1-0101-AILD-P910-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM STROBE AND HORN AAH-P96040, AAH-P96050
3 of 3	1-0101-AILD-P639-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM AIR FLOW, XV-P64002
3 of 3	1-0101-AILD-P640-001	SCUM DEWATERING BUILDING - LOOP DIAGRAM HVAC BASEMENT, P-P6630, P-P6640

GENERAL REQUIREMENTS

E2. FACILITY ACCESS

- E2.1 The normal operating hours of the City are 7:30 am to 4:00 pm, Monday to Friday, excluding statutory holidays and days in lieu of statutory holidays that fall on a weekend. Work by the Contractor shall occur within these hours unless prior arrangement have been made with the Contract Administrator.

E3. TEMPORARY USE OF CITY EQUIPMENT

E3.1 The City facilities, systems, and equipment shall not be used during construction without the Contract Administrator's written permission. The Contract Administrator reserves the right to withdraw said permission if, in their opinion, proper care and maintenance are not provided.

E4. CASH ALLOWANCE FOR 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 in accordance with C7:

(a) The base cost is to be the wholesale cost of the material, regardless of the Contractor or Subcontractor supplying the material.

(b) In general, the party (Contractor or Subcontractor) supplying the material is the party that purchases the material from a supplier who does not perform any work on Site, unless otherwise determined by the Contract Administrator.

(c) Where the Contractor is supplying the material, the mark-up on the material is limited to fifteen percent (15%).

(d) Where the Contractor's immediate Subcontractor is supplying the material the total mark-up on the material including all Subcontractors and the Contractor is limited to twenty-five percent (25%)

(i) The Subcontractor's mark-up on the material is limited to fifteen percent (15%);

(ii) The Contractor's mark-up on the material is limited to ten percent (10%).

(e) A Third-Level Subcontractor is a Subcontractor of a Subcontractor of the Contractor.

(i) No Third-Level Subcontractors on this project are approved for additional mark-up.

E4.8 In the event that a Third-Level Subcontractor is utilized, that is not approved for additional mark-up, the Contractor is responsible for coordinating the split of the maximum approved mark-up between the Contractor and Subcontractors.

CONTRACTOR SUPPLIED STANDARDIZED GOODS

E5. GENERAL REQUIREMENTS

- E5.1 Comply with the general requirements of E5 for all Standardized Goods supplied by the Contractor.
- E5.2 Comply with the following Standardization Goods requirements:
- E5.2.1 Control System and Motor Control Equipment in accordance with E6.
 - E5.2.2 Electric Valve Actuators in accordance with E7.
 - E5.2.3 Instrumentation in accordance with E8.
- E5.3 Contact the Contract Administrator regarding any potential uncertainty as to whether a good is covered under a standardization agreement.
- E5.4 The Contractor may utilize a Standardization Vendor to provide other goods required under the Contract, in addition to Standardized Goods.
- E5.5 The Contractor shall separately track all goods supplied under each standardization agreement.
- E5.5.1 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.
- E5.6 Pricing:
- E5.6.1 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.
 - E5.6.2 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.
 - E5.6.3 The Contractor and Subcontractors shall not utilize the City's agreements with the Standardization Vendors for any purpose other than City work.
 - E5.6.4 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.
- E5.7 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.
- E5.8 Without limiting or otherwise affecting any other term or condition of the Contract, including (non-exhaustive) D12.2.1:
- E5.8.1 The supply of goods through a Standardization Vendor shall not relieve the Contractor of their obligations.
 - E5.8.2 Errors or omissions by a Standardization Vendor shall not be a cause for a Change in Work.
 - E5.8.3 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.
 - E5.8.4 The Contractor shall engage directly with the persons listed as the Standardized Vendor contact in the following sections E6.7, E8.7 unless otherwise directed by the Contract Administrator.

E5.9 Submittals

- E5.9.1 Submittals shall be provided for Standardized Goods in accordance with the Specifications and typical industry practice. Submittals shall not be bypassed for Standardized Goods.

E6. STANDARDIZED CONTROL SYSTEM AND MOTOR CONTROL EQUIPMENT

- E6.1 The City has standardized on a specific vendor for the supply and delivery of control system and motor control equipment. The Standardization Vendor was selected via RFP 756-2013 and was awarded to Schneider Electric Canada Inc. (Schneider).

- (a) Refer to E6.7 for contact information.
- (b) Copies of the tender documents are available from City of Winnipeg Material Management's website.

- E6.2 Goods to be procured via this standardization agreement includes but is not limited to:

- (a) Modicon Programmable Automation Controllers (PACs) M580, M580S, M340 including all associated IO and Network hardware.
- (b) PLC to Infi90 Termination Unit migration cables.
- (c) PAC Programming Software.
- (d) AVEVA Dynamic- Dynsim Process Simulator Software.
- (e) AVEVA Plant SCADA HMI System Software.
- (f) AVEVA Historian Server and Client Software.
- (g) Harmony Touchscreen HMI Hardware Panel systems including iPC (Industrial PC).
- (h) Touchscreen HMI Programming Software.
- (i) Model6 Motor Control Centers including all EcoStruxure components.
- (j) Altivar Process and APM LV VFDs, Altivar6000 MV VFD Systems, motor starters, AltiStart22, 480 soft starters, and associated components.
- (k) Modicon Industrial Ethernet Switches as per design. Note that some Ethernet switches may be specified to be from other vendors due to application requirements. Refer to drawings and specifications.
- (l) AVEVA Octoplant Version Management Software.
- (m) AVEVA Insight Information Server Software.
- (n) AVEVA Reports for Operations Metric Software.
- (o) AVEVA Teamwork – Enterprise Database Integration Software.
- (p) AVEVA PI – Global Historian Software.
- (q) Schneider Electric Systems Integration Services (including programming and configuration).
- (r) Schneider ETAP Electrical – Model, Monitor and Manage Electrical Networks Software.
- (s) Schneider Electric Classroom and Virtual training sessions.

- E6.3 For clarity, this standardization agreement does not include:

- (a) Computer workstation hardware including operating systems;
- (b) Computer server hardware, including operating systems and general terminal server / client software;
- (c) Thin client terminals;
- (d) Fused and un-fused disconnect switches not incorporated into a MCC or other motor starter;
- (e) Control stations and pendants not incorporated into a MCC or other motor starter;

- (f) Electrical Transformers not in a MCC or motor starter;
 - (g) Panelboards not integrated in a MCC;
 - (h) Switchboards / Switchgear not integrated in a MCC;
 - (i) Control Panels to house PLCs;
 - (j) Instrumentation;
 - (k) Power supplies not integrated with the PLC / HMI systems; and
 - (l) Terminal blocks not integrated with the PLC / HMI systems
- E6.4 The following model series shall be utilized unless otherwise indicated in the Specifications, Drawings or otherwise approved by the Contract Administrator:
- (a) Modicon M580, M580S (for SIL level applications).
 - (b) Modicon X80 PLC I/O; Modicon Ethernet Switches.
 - (c) EcoStruxure Control Expert programming software.
 - (d) AVEVA Plant Scada HMI systems; AVEVA Teamwork, AVEVA INSIGHT, AVEVA Octoplant, AVEVA Reports for Operation.
 - (e) AVEVA Historian; AVEVA PI.
 - (f) Local Panel HMI – Harmony series.
 - (g) Schneider Electric Model 6 MCC – NEMA rated standard starters, Intelligent Ethernet (unless otherwise specified).
 - (h) Altivar Process 600 series VFDs for variable torque applications; and
 - (i) Altivar Process 900 series VFDs for more demanding applications.
 - (j) Altivar APM LV VFDs for over 125HP applications.
 - (k) Altivar 6000 Medium Voltage System VFD and Service.
 - (l) Schneider ETAP Electrical – Model, Monitor and Manage Electrical Networks Software.
- E6.5 Commissioning and start-up:
- E6.5.1 Except as identified in E6.5.2, commissioning and start-up of all goods purchased under this standardization agreement shall be performed by Schneider Electric Systems Canada Inc.
- E6.5.2 Schneider shall provide MCC start-up services, but not commissioning services. Coordinate with Schneider as required to understand the limitations of Schneider’s MCC start-up services and provide all remaining testing, commissioning and start-up services to provide a complete commissioning and start-up. VFDs either stand-alone or in MCC shall be set-up and commissioned by Schneider Electric to certify a 5-year warranty.
- The contact information for all quotations for service for 5-year warranty of Schneider VFDs is:
Dan Schmautz
Expert Service
21 Omands Creek Blvd. Winnipeg. Mb.
C: 204-612-4349
dan.schmautz@se.com
- E6.6 Training
- E6.6.1 Programmable Controller Local Training
- (a) Overview
 - (i) Provide instruction to designated City personnel in the operation and maintenance of the Schneider programmable controller control system components and associated Schneider tools and equipment.
 - (ii) This training shall be provided by Schneider.

- (iii) This training does not relieve the Contractor of other training requirements associated with the control system.
- (b) Location
 - (i) The location of the training will be in the City of Winnipeg, in a facility provided by the City.
 - (ii) The room will be classroom style.
- (c) Submittals
 - (i) Submit the names and qualifications of the proposed instructors.
 - (ii) Submit training proposal complete with hour by hour schedule including brief overview of content of each training segment a minimum of 60 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 programmable controller control system.
 - (ii) The Contract Administrator may reject instructors it deems to not be qualified.
 - (iii) In the event that the training provided is not satisfactory, reduction of payment may be applied.
- (e) Duration
 - (i) The training shall be a minimum of one (1) day in duration.
- (f) Materials
 - (i) Provide equipment, visual and audio aids, and materials.
 - (ii) Supply manual for each trainee, describing in detail the information included in each training program.
- (g) Attendees
 - (i) The attendees are expected to include, but not be limited to: electrical and instrumentation maintenance personnel and programmable controller support specialists.
- (h) Content
 - (i) Overview of the equipment.
 - (ii) Equipment maintenance training including:
 - ◆ Installation;
 - ◆ Troubleshooting;
 - ◆ Preventative maintenance;
 - ◆ Replacement of modules;
 - ◆ Network communication troubleshooting and diagnostics;
 - ◆ Fieldbus troubleshooting and diagnostics; and
 - ◆ Programmable controller redundancy strategies and operation.
 - (iii) Maintenance use of programmable controller programming software, including:
 - ◆ Basic operation of the software;
 - ◆ Connecting to programmable controllers;
 - ◆ Download and upload of software configuration; and
 - ◆ Diagnostics and troubleshooting.
- (i) Number of Sessions
 - (i) Provide a minimum of two (2) sessions.

E6.6.2 MCC and VFD Local Training Session

- (a) Overview

- (i) Provide instruction to designated City personnel in the operation and maintenance of the motor control centres and variable frequency drives.
 - (ii) This training shall be provided by Schneider.
 - (iii) This training does not relieve the Contractor of other training requirements associated with the control system.
- (b) Location
 - (i) The location of the training will be in the City of Winnipeg, in a facility provided by the City.
- (c) Submittals
 - (i) Submit the names and qualifications of the proposed instructors.
 - (ii) Submit training proposal complete with hour by hour schedule including brief overview of content of each training segment a minimum of 60 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 MCC and VFD systems.
 - (ii) The Contract Administrator may reject instructors it deems to not be qualified.
 - (iii) In the event that the training provided is not satisfactory, reduction of payment may be applied.
- (e) Duration
 - (i) The training shall be a minimum of six (6) hours in duration, excluding coffee and lunch breaks.
- (f) Materials
 - (i) Provide equipment, visual and audio aids, and materials.
 - (ii) Supply manual for each trainee, describing in detail the information included in each training program.
- (g) Attendees
 - (i) The attendees are expected to include, but not be limited to:
 - ◆ Electrical and instrumentation maintenance personnel.
 - ◆ Programmable controller support specialists.
- (h) Content
 - (i) Overview of the equipment.
 - (ii) Equipment maintenance training including:
 - ◆ Installation.
 - ◆ Troubleshooting.
 - ◆ Preventative maintenance.
 - ◆ Replacement of modules.
 - ◆ Fieldbus diagnostics.
 - ◆ Configuration of equipment parameters.
 - (iii) Maintenance use of equipment configuration software, including:
 - ◆ Basic operation of the software.
 - ◆ Connecting to intelligent starts and VFDs.
 - ◆ Download and upload of software configuration.
 - ◆ Diagnostics and troubleshooting.
- (i) Number of Sessions
 - (i) Provide a minimum of two (2) sessions.

E6.7 The contact information for all quotations and purchases from Schneider is:

Garth Eastman
21 Omands Creek Blvd
Winnipeg, MB, R2R 2V2
Telephone: 204-228-7807
E-mail: garth.eastman@se.com

- E6.7.1 Goods to be procured directly from Schneider using the Schneider contact:
- (a) Further to E6.2, goods to be procured via Schneider includes but is not limited to:
 - (i) PLC to Infi90 Termination Unit migration cables;
 - (ii) Schneider Electric Systems Integration Services (including programming and configuration);
 - (iii) ETAP – Electrical Design Software;
 - (iv) Training sessions.
- E6.7.2 Goods to be procured directly from Industrial Software Solutions (ISS) using the ISS contact:
- (a) Further to E6.2, goods to be procured via ISS includes but is not limited to:
 - (i) AVEVA Plant SCADA Software;
 - (ii) AVEVA Historian Server and Client Software;
 - (iii) AVEVA Process Simulator Software;
 - (iv) AVEVA Octoplant Version Management Software;
 - (v) AVEVA Insight Information Server Software;
 - (vi) AVEVA Reports for Operations Metrics Software;
 - (vii) AVEVA Teamwork – Enterprise Database Integration Software;
 - (viii) AVEVA PI – Global Historian Software; and
 - (ix) AVEVA Training sessions.
 - (b) The Contact information for all quotations for Software from Industrial Software Solutions (ISS) is:
 - Fraser Newton
 - Vice President Sales
 - ISS ULC – Western Canada
 - 10180 101 Street NW
 - 34th Floor
 - Edmonton, AB T5J 3S4
 - Telephone: 604-306-6585
 - E-mail: frasern@industrial-software.com
- E6.7.3 Goods to be procured via EECOL Electric (EECOL) Winnipeg as Schneider’s High Tech Automation Distributor:
- (a) Further to E6.2, goods to be procured via EECOL includes but is not limited to:
 - (i) Programmable Controllers (PLCs) including all associated components hardware and software;
 - (ii) Programmable Controller Programming Software;
 - (iii) Schneider Electric Systems Integration Services (including programming and configuration);
 - (iv) Schneider Electric VFD 5-year warranty Services;
 - (v) HMI System software;
 - (vi) Touchscreen HMI systems such as Harmony HMIs;
 - (vii) Touchscreen HMI Programming Software;
 - (viii) Motor Control Centers including all components;
 - (ix) Loose VFDs, motor starters, soft starters, and associated components; and

(x) Industrial Ethernet Switches as per design. Note that some Ethernet switches may be specified to be from other vendors due to application requirements. Refer to drawings and specifications.

(b) The EECOL contact:
Sean Eschyschyn
Regional Industrial Manager
EECOL Electric
Sean.Eschyschyn@eecol.com
1760 Wellington Ave. MB R3H 0E9
P (204) 774-2800 C (204) 399-9304

(c) All correspondence related to requests-for-quotations to EECOL for goods listed under E6.7.2 (a) shall be copied to the Schneider contact listed under E6.7.

(d) For whatever reason, if EECOL is unable to receive or respond to request-for-quotations for goods listed under E6.7.2 (a), request-for-quotations may be issued directly to the Schneider contact listed under E6.7.

E6.8 Quotations and orders:

E6.8.1 Reference the following in all quotation requests and purchase orders:

(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 756-2013.”

E7. STANDARDIZED ELECTRIC VALVE ACTUATORS

E7.1 The City has standardized on a specific vendor for the supply and delivery of electric valve actuators. The Standardization Vendor was selected via RFP 331-2014 and was awarded to Rotork Control Canada Ltd. (Rotork).

(a) Copies of the tender documents are available from City of Winnipeg Material Management’s website.

E7.2 Goods to be procured via this standardization agreement include but are not limited to:

(a) Multi-turn electric valve actuators and quarter-turn electric valve actuators with approximate torque requirements of:

(i) On/off torques > 250 Nm

(ii) Modulating torques > 150 Nm

(b) Associated accessories are also included in the agreement.

E7.3 For clarity, this standardization agreement does not include:

(a) Solenoid valve actuators;

(b) Small HVAC damper actuators; and

(c) Electric valve actuators with a power supply < 120 VAC.

E7.4 The use of gearboxes shall not be utilized to reduce actuator torque requirements for the purpose of bypassing this standardization agreement.

E7.5 The following model series shall be utilized unless otherwise indicated in the Specifications, Drawings or otherwise approved by the Contract Administrator:

(a) IQ3 Range – (IQ, IQM, IQS, IQT, IQTM).

E7.6 Valve Integration Assistance

E7.6.1 Coordinate with Rotork to review the integration of valves with the valve actuators. Comply with guidance provided by Rotork.

- E7.6.2 The review provided by Rotork shall be for the purpose of ascertaining conformance of the actuator application with the given valve. The responsibility for integration of the valve with the valve actuator shall remain with the Contractor.
- E7.6.3 Rotork will make all applicable actuator shop drawings and datasheets available to the Contractor to allow for integration of the valve with the valve actuator.
- E7.6.4 In the event that the valve cannot directly attach to a standard base available for the electric actuator, supply and installation of valve adaptors between the actuator base and the valve will be the responsibility of the Contractor.
- E7.6.5 Costs
- (a) Rotork is obligated to provide valve integration assistance services at no additional cost above the supply of the actuator.
- E7.7 Valve Integration Services
- E7.7.1 The Contractor may engage Rotork to provide valve integration services in addition to that required in E7.6; however, this additional work would be outside of the Standardization Agreement.
- (a) The Contractor is encouraged to provide the best value for services provided.
- E7.8 Field setup and commissioning:
- E7.8.1 Field setup and commissioning of the actuators shall be performed by Rotork under the standardization agreement for the following:
- (a) The first actuator of each type installed on site; and
 - (b) A minimum of two actuators additional of each type, or 5% of the actuators of that type, whichever is greater.
- E7.8.2 Coordinate with Rotork as required to understand the limitations of Rotork's field setup and commissioning services and provide all remaining services to provide a complete commissioning and start-up.
- E7.8.3 Field setup and commissioning of the remaining actuators may be performed by Rotork, or by a representative of the valve manufacturer.
- E7.8.4 Rotork's presence to setup and commission the actuator in no way limits the valve or gate vendor's responsibility for setup and commissioning.
- E7.8.5 Responsibility of the Contractor:
- (a) It is the responsibility of the Contractor to ensure that the installation of the actuator is complete and that the valve is ready to commission, as per Rotork's documented pre-commissioning checklist.
- E7.8.6 Field setup and commissioning servers shall include all standard manufacturer recommended start-up and commissioning procedures, as well as the following:
- (a) Visual Inspection
 - (i) Inspect equipment for signs of damage.
 - (ii) Verify mechanical installation per drawings.
 - (iii) Inspect electrical terminal compartment for foreign objects.
 - (b) Mechanical Inspection
 - (i) Check all bolts for tightness and to the correct torque.
 - (ii) Check for alignment.
 - (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 for continuity.
- (iii) Confirm input voltage and phase rotation is correct.
- (iv) Confirm that the control / fieldbus connections are correct.
- (d) Start-up Services
 - (i) Coordinate turning on power to the actuator.
 - (ii) Perform functional tests.
 - (iii) Coordinate with City personnel and designated representatives to confirm and finalize the application requirements.
 - (iv) Configure and document all settings, as appropriate for the application.
 - (v) Perform test runs.
 - (vi) Verify that all configuration values are in the correct state.
 - (vii) Transfer the configuration settings to on-site personnel.

E7.9 On-Site Training Session

E7.9.1 Operation and Basic Maintenance

- (a) Overview
 - (i) Provide instruction to designated City personnel in the operation and basic maintenance of the electric actuators.
- (b) Location
 - (i) The location of the training will be in the City of Winnipeg, in a facility provided by the City.
- (c) Travel
 - (i) Provide all travel and accommodations at no additional cost.
- (d) 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 60 Calendar Days prior to the anticipated date of beginning of training.
- (e) Quality Assurance
 - (i) Provide competent instructors thoroughly familiar with all aspects of the electric actuators.
 - (ii) The Contract Administrator may reject instructors it deems to not be qualified.
 - (iii) In the event that the training provided is not satisfactory, reduction of payment may be applied.
- (f) Duration
 - (i) The training shall consist of two (2) three and a half (3.5) hours periods, excluding coffee breaks. Both sessions shall be in one day.
 - (ii) Each day shall be assumed to be independent of other training days, and not necessarily aligned with other on-site work or training.
- (g) Materials
 - (i) Provide equipment, visual and audio aids, and materials.
 - (ii) Supply manual for each trainee, describing in detail the information included in each training program.
- (h) Attendees
 - (i) The attendees are expected to include, but not be limited to:
 - ◆ Operations personnel.
 - ◆ Mechanical maintenance personnel.
 - ◆ Electrical and instrumentation maintenance personnel.

- (i) Content
 - (i) Overview of the equipment.
 - (ii) Internal operation of the actuators.
 - (iii) Equipment operating training including:
 - ◆ Local operation of the actuator,
 - ◆ Manual / handwheel operation,
 - ◆ Remote operation, and
 - ◆ Operation via the remote configuration tool.
- (j) Basic equipment maintenance training including:
 - (i) Basic diagnostics,
 - (ii) Basic troubleshooting,
 - (iii) Access to historical information and torque values, and
 - (iv) Preventative maintenance
- (k) Number of Sessions:
 - (i) Provide a minimum of three (3) sessions.

E7.9.2 Detailed Configuration and Service

- (a) Overview
 - (i) Provide instruction to designated City personnel in the detailed setup, configuration, and service of the electric actuators.
- (b) Location
 - (i) The location of the training will be in the City of Winnipeg, in a facility provided by the City.
- (c) Travel
 - (i) Provide all travel, meals and accommodations at no additional cost.
- (d) 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 60 Calendar Days prior to the anticipated date of beginning of training.
- (e) Quality Assurance
 - (i) Provide competent instructors thoroughly familiar with all aspects of the electric actuators.
 - (ii) The Contract Administrator may reject instructors it deems to not be qualified.
 - (iii) In the event that the training provided is not satisfactory, reduction of payment may be applied.
- (f) Duration
 - (i) The training shall consist of two days, each seven (7) hour sessions, excluding lunch and coffee breaks. The session days shall be back-to-back.
 - (ii) Each session (2-days) shall be assumed to be independent of other training sessions, and not necessarily aligned with other on-site work or training.
- (g) Materials
 - (i) Provide equipment, visual and audio aids, and materials.
 - (ii) Supply manual for each trainee, describing in detail the information included in each training program.
- (h) Attendees
 - (i) The attendees are expected to include, but not be limited to:
 - ◆ Mechanical maintenance personnel.

- ◆ Electrical and instrumentation maintenance personnel.
- (i) Content
 - (i) Detailed overview of the equipment and its internal construction.
 - (ii) Equipment configuration training, including:
 - ◆ Setup of the actuator parameters,
 - ◆ Establishing communications, and
 - ◆ Setting torque limits and end limits.
- (j) Equipment maintenance training including:
 - (i) Detailed diagnostics,
 - (ii) Detailed troubleshooting,
 - (iii) Preventative maintenance,
 - (iv) Disassembly,
 - (v) Replacement of modules, and
 - (vi) Fieldbus diagnostics
- (k) Maintenance use of equipment configuration software, including:
 - (i) Basic operation of the software,
 - (ii) Connecting to electric actuators,
 - (iii) Download and upload of the actuator configuration, and
 - (iv) Diagnostics and troubleshooting.
- (l) Number of Sessions:
 - (i) Provide a minimum of two (2) sessions.

E7.10 The contact for all quotations and purchases:

Terry Arduini
Sector Manager
Water & Power- Canada
C: +1 (514) 292-3488
E: terry.arduini@rotork.com
Rotork Controls (Canada) Ltd
4228 – 55 Ave NW, Edmonton, AB T6B 3S2

E7.11 Quotations and orders:

E7.11.1 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 123-2014.”

E8. STANDARDIZED INSTRUMENTATION

E8.1 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.

E8.2 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.
- E8.3 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).
- E8.4 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 5100 series.
 - (i) SITRANS F M MAG 3100 series may be utilized where specified.
 - (b) Magnetic Flowmeter Transmitters - SITRANS F M MAG 6000 series.
 - (c) Pressure Transmitters - SITRANS P420.
 - (d) Temperature Transmitters
 - (i) SITRANS TF (Process Applications).
 - (ii) SITRANS TH320/TH420 (HVAC applications).
 - (e) Ultrasonic Level Transmitters
 - (i) Integrated applications: SITRANS Probe LU.
 - (ii) Separate controller applications: SITRANS LT 500 Multiranger with EchoMax transducers.
 - (iii) LR100 Radar.
- E8.5 Field setup and commissioning:
- E8.5.1 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.
- E8.5.2 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.
- E8.5.3 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.
- E8.5.4 The services provided are to include at all standard manufacturer recommended start-up and commissioning procedures, as well as the following:

- (a) Visual Inspection
 - (i) Inspect instrument for signs of damage,
 - (ii) Verify mechanical and piping installation per drawings and manufacturer requirements,
 - (iii) Verify wiring installation per drawings and manufacturer requirements, and
 - (iv) Inspect electrical terminal compartment for foreign objects.
- (b) Mechanical Inspection
 - (i) Check all connections and bolts for tightness and to the correct torque,
 - (ii) Check for alignment, and
 - (iii) Ensure appropriate clearances for all connecting bushings and connecting faces.
- (c) Electrical Inspection
 - (i) Check all power wiring connections for tightness,
 - (ii) Check all fuses in the instrument for continuity,
 - (iii) Confirm input voltage is correct, and
 - (iv) Confirm that the signal / fieldbus connections are correct.
- (d) Start-up Services
 - (i) Coordinate turning on power to the instrument,
 - (ii) Configure all applicable settings and parameters that could not be configured prior to installation,
 - (iii) Perform functional tests,
 - (iv) Coordinate with City personnel and designated representatives to confirm and finalize the application requirements,
 - (v) Configure and document all settings, as appropriate for the application,
 - (vi) Coordinate to perform test demonstrations to verify instrument performance,
 - (vii) Verify that all configuration values are in the correct state, and
 - (viii) Transfer the configuration settings to on-site personnel.
- (e) Documentation
 - (i) Provide a signed documented commissioning form for each instrument, in a format acceptable to the Contract Administrator.
- (f) Travel
 - (i) Provide all travel and accommodations at no additional cost.
- (g) Personnel:
 - (i) Personnel shall be factory trained in the maintenance, configuration, and service of the proposed instrumentation.

E8.5.5 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.

E8.6 Training

E8.6.1 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 60 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.

E8.6.2 Local Training Session – Electromagnetic Flowmeter, Pressure, Temperature

- (a) Provide local training sessions, in accordance with E6.6.1:
- (b) Duration:
 - (i) Each training session shall be a minimum of six (6) hours in duration, excluding coffee and lunch breaks.
 - (ii) Each day shall be assumed to be independent of other training days, and not necessarily aligned with other on-site work or training.
- (c) Scope:
 - (i) Each training session shall address the complete scope of all products proposed.
- (d) For each instrument type, provide the following training content:
 - (i) Overview of the instrument,
 - (ii) Equipment maintenance training, including:
 - ◆ Installation,
 - ◆ Troubleshooting,
 - ◆ Preventative maintenance,
 - ◆ Replacement of components,
 - ◆ Fieldbus network troubleshooting and diagnostics, and
 - ◆ Calibration procedures.
 - (iii) Maintenance use of associated software and HART/PROFIBUS parameters, including:
 - ◆ Basic operation of software,
 - ◆ Connecting to instruments,
 - ◆ Configuration of parameters,
 - ◆ Download and upload software configuration, and
 - (iv) Diagnostics and troubleshooting.

- (e) Number of Sessions:
 - (i) Provide a minimum of two (2) sessions for each instrument type.

E8.6.3 Local Training Session – Ultrasonic Level

- (a) Provide local training sessions, in accordance with E8.6.1:
- (b) Duration:
 - (i) Each training session shall be a minimum of three (3) hours in duration, excluding coffee and lunch breaks.
 - (ii) Each day shall be assumed to be independent of other training days, and not necessarily aligned with other on-site work or training.
- (c) Scope:
 - (i) Each training session shall address the complete scope of all products proposed.
- (d) For each instrument, provide the following training content:
 - (i) Overview of the instrument,
 - (ii) Equipment maintenance training, including:
 - ◆ Installation,
 - ◆ Troubleshooting,
 - ◆ Preventative maintenance,
 - ◆ Replacement of components,
 - ◆ Fieldbus network troubleshooting and diagnostics, and
 - ◆ Calibration procedures.
 - (iii) Maintenance use of associated software and HART/PROFIBUS parameters, including:
 - ◆ Basic operation of software,
 - ◆ Connecting to instruments,
 - ◆ Configuration of parameters,
 - ◆ Download and upload software configuration, and
 - ◆ Diagnostics and troubleshooting.
- (e) Number of Sessions:
 - (i) Provide a minimum of two (2) sessions for each instrument type.

E8.6.4 Electromagnetic Flowmeter Calibration Verification Tool Training

- (a) Provide local training sessions, in accordance with E8.6.1:
- (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.

E8.6.5 Each training session shall be a minimum of four (4) hours in duration, excluding coffee and lunch breaks, or longer as required to instruct personnel in the required operation.

E8.7 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

E8.8 Quotations and orders:

E8.8.1 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.”