



THE CITY OF WINNIPEG

TENDER

TENDER NO. 288-2025

2025 SEWER INSPECTIONS

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	1
B6. Addenda	2
B7. Substitutes	2
B8. Bid Components	3
B9. Bid	3
B10. Prices	4
B11. Disclosure	4
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	8
B18. Evaluation of Bids	8
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	2
D5. Definitions	2
D6. Contract Administrator	3
D7. Contractor's Supervisor	3
D8. Accessible Customer Service Requirements	3
D9. Unfair Labour Practices	4
D10. Furnishing of Documents	5

Submissions

D11. Authority to Carry on Business	5
D12. Safe Work Plan	5
D13. Insurance	5
D14. Contract Security	6
D15. Subcontractor List	7
D16. Equipment List	7
D17. Detailed Work Schedule	7
D18. Requirement for Site Accessibility Plan	8

Schedule of Work

D19. Commencement	9
D20. Work By Others	9
D21. Working Days	9
D22. Hours of Work	10

D23. Critical Stages	10
D24. Substantial Performance	11
D25. Total Performance	11
D26. Liquidated Damages	11
D27. Supply Chain Disruption Schedule Delays	11
Control of Work	
D28. Job Meetings	12
D29. Prime Contractor – The Workplace Safety and Health Act (Manitoba)	12
D30. The Workplace Safety and Health Act (Manitoba) – Qualifications	12
Measurement and Payment	
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	14
D36. Adjustments for Changes in Laws, Taxes, or Tarriffs	16
Form J: Subcontractor List	18
Form K: Equipment	19

PART E - SPECIFICATIONS

General	
E1. Applicable Specifications and Drawings	1
General Requirements	
E2. Confined Space Entry	2
E3. Water Supply	2
E4. Site Conditions	2
E5. Submittals	2
E6. Sewer Cleaning	3
E7. Manhole Cleaning	5
E8. Miscellaneous Manhole Cleaning	6
E9. Sewer Inspection	6
E10. Manhole Inspection	8
E11. Sewer Inspection Equipment	8
E12. Digital Panoramic Manhole Inspection	10
E13. Lift Station Cleaning	11
E14. Sewers Local to Hospitals	12
E15. Sewers Local to Schools	13
E16. Sewers Local to Lift stations	18
E17. Flush Tank Manholes	18
E18. Manholes With Limited Access	19
E19. Inspections - General	21
E20. Existing Conditions	21
E21. Trenchless Point Repairs	22
E22. Traffic Control	23
E23. Notices to Residents	24
E24. Damage to City and Private Property	24
E25. Project Information Sharing	25
E26. Project Deliverables	25

PART F - SECURITY CLEARANCE

F1. Security Clearance	1
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APPENDICES

Appendix A Work Program

Appendix B Fugitive Emission Material Safety Data Sheet – Hydrogen Sulphide Gas

Appendix C Sample Non-Disclosure Agreement

Appendix D SD-019 – Backflow Protection Arrangement for Water Supply From Hydrant

PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 2025 SEWER INSPECTIONS

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 12:00 noon Winnipeg time, April 24, 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 Bidder may view the Site without making an appointment.

B3.2 The Bidder is advised that the sewers may be located in easements through private property or City owned parklands and right-of-ways where a paved access may not exist. It will be the Bidder's responsibility to identify these sewers and arrange for access and to restore any surface to private and City owned property.

B3.3 The Bidder/Proponent is responsible for inspecting the Site, the nature of the Work to be done and all conditions that might affect their Bid/Proposal 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 B6.1.

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

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

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

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

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

B5. CONFIDENTIALITY

B5.1 Information provided to a Bidder by the City or acquired by a Bidder by way of further enquiries or through investigation is confidential. Such information shall not be used or disclosed in any way without the prior written authorization of the Contract Administrator. The use and disclosure of the confidential information shall not apply to information which:

(a) was known to the Bidder before receipt hereof; or

- (b) becomes publicly known other than through the Bidder; or
- (c) is disclosed pursuant to the requirements of a governmental authority or judicial order.

B5.2 The Bidder shall not make any statement of fact or opinion regarding any aspect of the Tender to the media or any member of the public without the prior written authorization of the Contract Administrator.

B6. ADDENDA

B6.1 The Contract Administrator may, at any time prior to the Submission Deadline, issue addenda correcting errors, discrepancies or omissions in the Tender, or clarifying the meaning or intent of any provision therein.

B6.2 The Contract Administrator will issue each addendum at least two (2) Business Days prior to the Submission Deadline, or provide at least two (2) Business Days by extending the Submission Deadline.

B6.3 Addenda will be available on the MERX website at www.merx.com.

B6.4 The Bidder is responsible for ensuring that they have received all addenda and is advised to check the MERX website for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.

B6.5 The Bidder shall acknowledge receipt of each addendum in Paragraph 10 of Form A: Bid/Proposal. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.

B6.6 Notwithstanding B4, enquiries related to an Addendum may be directed to the Contract Administrator indicated in D6.

B7. SUBSTITUTES

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

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

B7.3 Requests for approval of a substitute will not be considered unless received in writing by the Contract Administrator at least five (5) Business Days prior to the Submission Deadline.

B7.4 The Bidder shall ensure that any and all requests for approval of a substitute:

- (a) provide sufficient information and details to enable the Contract Administrator to determine the acceptability of the Plant, Material or method as either an approved equal or alternative;
- (b) identify any and all changes required in the applicable Work, and all changes to any other Work, which would become necessary to accommodate the substitute;
- (c) identify any anticipated cost or time savings that may be associated with the substitute;
- (d) certify that, in the case of a request for approval as an approved equal, the substitute will fully perform the functions called for by the general design, be of equal or superior substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance;
- (e) certify that, in the case of a request for approval as an approved alternative, the substitute will adequately perform the functions called for by the general design, be similar in substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with

the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance.

- B7.5 The Contract Administrator, after assessing the request for approval of a substitute, may in their sole discretion grant approval for the use of a substitute as an “approved equal” or as an “approved alternative”, or may refuse to grant approval of the substitute.
- B7.6 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, to the Bidder who requested approval of the substitute.
- B7.6.1 The Contract Administrator will issue an Addendum, disclosing the approved materials, equipment, methods and products to all potential Bidders. The Bidder requesting and obtaining the approval of a substitute shall be responsible for disseminating information regarding the approval to any person or persons they wish to inform.
- B7.7 If the Contract Administrator approves a substitute as an “approved equal”, any Bidder may use the approved equal in place of the specified item.
- B7.8 If the Contract Administrator approves a substitute as an “approved alternative”, any Bidder bidding that approved alternative may base their Total Bid Price upon the specified item but may also indicate an alternative price based upon the approved alternative. Such alternatives will be evaluated in accordance with B18.
- B7.9 No later claim by the Contractor for an addition to the Total Bid Price because of any other changes in the Work necessitated by the use of an approved equal or an approved alternative will be considered.

B8. BID COMPONENTS

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

B9. BID

- B9.1 The Bidder shall complete Form A: Bid/Proposal, making all required entries.
- B9.2 Paragraph 2 of Form A: Bid/Proposal shall be completed in accordance with the following requirements:
- (a) if the Bidder is a sole proprietor carrying on business in their own name, their name shall be inserted;
 - (b) if the Bidder is a partnership, the full name of the partnership shall be inserted;
 - (c) if the Bidder is a corporation, the full name of the corporation shall be inserted;
 - (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 The Bidder shall enter the Total Bid Price from Form B: Prices into the Total Bid Price field in MERX.
- B10.5.1 Bidders are advised that the calculation indicated in B18.4 will prevail over the Total Bid Price entered in MERX.

B11. DISCLOSURE

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

(a) N/A.

B12. CONFLICT OF INTEREST AND GOOD FAITH

B12.1 Further to C3.2, Bidders, by responding to this Tender, declare that no Conflict of Interest currently exists, or is reasonably expected to exist in the future.

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

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

that could or would be seen to:

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

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

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

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

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

- (a) disqualify a Bidder that fails to disclose a perceived, potential or actual Conflict of Interest of the Bidder or any of their employees proposed for the Work;
- (b) require the removal or replacement of any employees proposed for the Work that has a perceived, actual or potential Conflict of Interest that the City, in their sole discretion, determines cannot be avoided or mitigated;

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

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

B13. QUALIFICATION

B13.1 The Bidder shall:

- (a) undertake to be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba; 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 B13.6 and D8).
- (e) upon request of the Contract Administrator, provide the Security Clearances in accordance with PART F - SECURITY CLEARANCE.

B13.4 The Bidder (not including any Subcontractor) shall:

- (a) have successfully completed over 5000 metres of previous closed-circuit television (CCTV) inspection within sewers 1350 mm and larger for condition assessment purposes (CCTV of new infrastructure for acceptance purposes shall not be deemed as representative experience).

B13.5 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/>).
- B13.6 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.
- B13.7 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.
- B13.8 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.

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 The Work of this Contract is contingent upon Council approval of sufficient funding in the 2025 Capital Budget. If the Capital Budget approved by Council does not include sufficient funding for the Work, the City will have no obligation to award a Contract.
- 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 of inspections and re-inspections with portions of cleaning within the Combined, Wastewater, Land Drainage, and Storm Relief sewers and their corresponding manholes and control structures located at various districts throughout the City of Winnipeg. This Work is for the purpose of obtaining internal video to observe and record structural, construction, operational and miscellaneous defects and features to enable condition assessment and apply rehabilitation treatment assignments, while assessing thoroughness of sewer cleaning operations undertaken under this Contract.

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

- (a) Land Drainage Sewer Inspection Work Program
 - (i) CCTV Inspection of all Land Drainage Sewers.
 - (ii) Inspection of all manholes and structures.
 - (iii) Cleaning of all Land Drainage sewers smaller than 900mm.
 - (iv) Cleaning of all manholes and structures where the host pipe has been cleaned.
- (b) Re-Inspection Work Program
 - (i) CCTV Inspection of all Re-Inspection Sewers.
 - (ii) Inspection of all manholes and control structures.
 - (iii) Cleaning of all combined sewers smaller than 900mm.
 - (iv) Cleaning of all wastewater sewers smaller than 450mm.
 - (v) Cleaning of all manhole and structures where the host pipe has been cleaned.
- (c) Storm Relief Sewer Inspection Work Program
 - (i) CCTV Inspection of all Storm Relief Sewers.
 - (ii) Inspection of all manholes and control structures.
 - (iii) Cleaning of all Storm Relief sewers smaller than 900mm.
 - (iv) Cleaning of all manhole and structures where the host pipe has been cleaned.
- (d) Wastewater Inspection Work Program
 - (i) CCTV Inspection of all Wastewater Sewers.
 - (ii) Inspection of all manholes and control structures.
 - (iii) Cleaning of all wastewater sewers smaller than 450mm.
 - (iv) Cleaning of all manhole and structures where the host pipe has been cleaned.
- (e) Provisional Trenchless Point Repairs
 - (i) 200mm-600mm where directed by the Contract Administrator.

D3.3 There will be the option of two (2) mutually agreed upon one (1) year extensions.

- D3.3.1 The City may negotiate the extension option with the Contractor within one hundred twenty (120) Calendar days of December 31st of the current year. The City shall incur no liability to the Contractor as a result of such negotiations.
- D3.3.2 Changes resulting from such negotiations shall become effective upon initiation of the next year's program; changes will not be applied to any year's program currently underway. Changes to the Contract shall not be implemented by the Contractor without written approval by the City.
- D3.3.3 The two potential one-year extensions for 2026 and 2027 will be Sewer Inspection programs that are expected to be of similar size and scope to the 2025 Contract, however, may be adjusted to reflect the lessons learned from previous years and may include the use of Multi-Sensor Inspection (MSI) technologies that include LASER, SONAR, and the use of Unmanned Aerial Vehicles (UAV).
- (b) Future programs will depend on available approved capital funds, and there is no guarantee of future Work.

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) "**AVI**": which stands for Audio Video Interleave, developed by Microsoft© is the acronym given to a family of multimedia container formats as part of its video for Windows© software.
 - (b) "**CCTV Inspection**" means an operation necessary to complete a high-definition, true-color visual inspection for verification of existing internal sewer line conditions.
 - (c) "**HDD**": Portable Hard Disk Drive. For the purposes of this specification, HDD shall be written in accordance with the ISO-9660 Level 2 specifications.
 - (d) "**IICRC**" means Institute of Inspection, Cleaning and Restoration Certification.
 - (e) "**MACP**" means Manhole Assessment Certification Program which is the accepted NASSCO certification program for manhole inspections.

- (f) **“MPEG”**: which stands for Moving Pictures Expert Group, is the acronym given to a family of international standards used for coding audio-visual information in a digital compressed format.
- (g) **“NASSCO”** means “National Association of Sewer Service Companies” which is the accepted North American standard for sewer condition coding and assessment.
- (h) **“PACP”** means Pipeline Assessment Certification Program which is the accepted NASSCO certification program for pipeline inspections.
- (i) **“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 Canada ULC, represented by:

Chris Mitchell, B.Sc. (Hons)
Asset Management Specialist

Telephone No. 204 928 9259
Email Address chris.mitchell@aecom.com

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

D7. CONTRACTOR'S SUPERVISOR

D7.1 At commencement of the Project, the Contractor shall provide the Contract Administrator, the experience and qualifications of the following Key Personnel assigned to the Work for the duration of the Contract, for projects of similar complexity, scope and value. Include educational background, professional recognition, job title, years of experience in current position with existing employer:

- (a) Project Manager
- (b) Site Superintendent

D7.2 As per D7.1, at the pre-construction meeting, the Contractor shall identify his/her designated Project Manager and Site Superintendent and any additional personnel representing the Contractor and their respective roles and responsibilities for the Work.

D7.3 The Contractor must communicate in writing to the Contract Administrator all personnel changes during the Work to meet the requirements of D7.1.

D7.4 As per D7.1 the Contractor's Site Superintendent shall maintain a physical site presence for the duration of the Work and provide coordination and support for all crews and Subcontractors unless written authorization has been given by the Contract Administrator.

D8. ACCESSIBLE CUSTOMER SERVICE REQUIREMENTS

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

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

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

D9. UNFAIR LABOUR PRACTICES

- D9.1 Further to C3.2, the Contractor declares that in bidding for the Work and in entering into this Contract, the Contractor and any proposed Subcontractor(s) conduct their respective business in accordance with established international codes embodied in United Nations Universal Declaration of Human Rights (UDHR) <https://www.un.org/en/about-us/universal-declaration-of-human-rights> International Labour Organization (ILO) [https://www.ilo.org/global/lang--en/index.htm](https://www.ilo.org/global/lang-en/index.htm) conventions as ratified by Canada.
- D9.2 The City of Winnipeg is committed and requires its Contractors and their Subcontractors, to be committed to upholding and promoting international human and labour rights, including fundamental principles and rights at work covered by ILO eight (8) fundamental conventions and the United Nations Universal Declaration of Human Rights which includes child and forced labour.
- D9.3 Upon request from the Contract Administrator, the Contractor shall provide disclosure of the sources (by company and country) of the raw materials used in the Work and a description of the manufacturing environment or processes (labour unions, minimum wages, safety, etc.).
- D9.4 Failure to provide the evidence required under D9.3, may be determined to be an event of default in accordance with C18.
- D9.5 In the event that the City, in its sole discretion, determines the Contractor to have violated the requirements of this section, it will be considered a fundamental breach of the Contract and the Contractor shall pay to the City a sum specified by the Contract Administrator in writing (“Unfair Labour Practice Penalty”). Such a violation shall also be considered an Event of Default, and shall entitle the City to pursue all other remedies it is entitled to in connection with same pursuant to the Contract.
- D9.5.1 The Unfair Labour Practice Penalty shall be such a sum as determined appropriate by the City, having due regard to the gravity of the Contractor’s violation of the above requirements, any cost of obtaining replacement goods/ services or rectification of the breach, and the impact upon the City’s reputation in the eyes of the public as a result of same.
- D9.5.2 The Contractor shall pay the Unfair Labour Practice Penalty to the City within thirty (30) Calendar Days of receiving a demand for same in accordance with D9.5. The City may also hold back the amount of the Unfair Labour Practice Penalty from payment for any amount it owes the Contractor.
- D9.5.3 The obligations and rights conveyed by this clause survive the expiry or termination of this Contract, and may be exercised by the City following the performance of the Work, should the City determine, that a violation by the Contractor of the above clauses has occurred following same. In no instance shall the Unfair Labour Practice Penalty exceed the total of twice the Contract value.

D10. FURNISHING OF DOCUMENTS

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

SUBMISSIONS

D11. AUTHORITY TO CARRY ON BUSINESS

- D11.1 The Contractor shall be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba, or if the Contractor does not carry on business in Manitoba, in the jurisdiction where the Contractor does carry on business, throughout the term of the Contract, and shall provide the Contract Administrator with evidence thereof upon request.

D12. SAFE WORK PLAN

- D12.1 The Contractor shall provide the Contract Administrator with a Safe Work Plan at least five (5) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract Documents, if applicable.
- D12.2 The Safe Work Plan should be prepared and submitted in the format shown in the City's template which is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Purchasing Division website at <http://www.winnipeg.ca/matmgt/Safety/default.stm>
- D12.3 Notwithstanding B13.5 at any time during the term of the Contract, the City may, at their sole discretion and acting reasonably, require an updated COR Certificate or Annual Letter of good Standing. A Contractor, who fails to provide a satisfactory COR Certificate or Annual Letter of good Standing, will not be permitted to continue to perform any Work.

D13. INSURANCE

- D13.1 The Contractor shall provide and maintain the following insurance coverage:
- (a) commercial general liability insurance, in the amount of at least two million dollars (\$2,000,000.00) inclusive, with The City of Winnipeg added as an additional insured, with a cross-liability clause, such liability policy to also contain contractual liability, unlicensed motor vehicle liability, non-owned automobile liability and products and completed operations, to remain in place at all times during the performance of the Work and throughout the warranty period;
 - (b) 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 property insurance for all Contractors equipment and tools to be used in connection of the Works.
- D13.2 Deductibles shall be borne by the Contractor.
- D13.3 All policies shall be taken out with insurers licensed to carry on business in the Province of Manitoba.
- D13.4 The Contractor shall provide the City Solicitor with a certificate(s) of insurance, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Work but in no event later than the date specified in C4.1 for the return of the executed Contract Documents, as applicable.

D13.5 The Contractor shall not cancel, materially alter, or cause each policy to lapse without providing at least thirty (30) Calendar Days prior written notice to the Contract Administrator.

D14. CONTRACT SECURITY

D14.1 The Contractor shall provide and maintain the performance bond and the labour and material payment bond until the expiration of the warranty period in the form of:

- (a) a performance bond of a company registered to conduct the business of a surety in Manitoba, in the amount of fifty percent (50%) of the Contract Price; and
- (b) labour and material payment bond of a company registered to conduct the business of a surety in Manitoba, in an amount equal to fifty percent (50%) of the Contract Price.

D14.1.1 Bonds are available at:

- (a) Performance Bond <https://www.winnipeg.ca/media/4928/>
 - (i) Performance Bond – Schedule A - Form of Notice
<https://www.winnipeg.ca/media/4831/>
 - (ii) Performance Bond – Schedule B – Surety’s Acknowledgement
<https://www.winnipeg.ca/media/4832/>
 - (iii) Performance Bond – Schedule C – Surety’s Position
<https://www.winnipeg.ca/media/4833/>
- (b) Labour & Material Payment Bond <https://www.winnipeg.ca/media/4930/>
 - (i) L&M Bond – Schedule A – Notice of Claim
<https://www.winnipeg.ca/media/4834/>
 - (ii) L&M Bond – Schedule B – Acknowledgement of a Notice
<https://www.winnipeg.ca/media/4835/>
 - (iii) L&M Bond – Schedule C – Surety’s Position
<https://www.winnipeg.ca/media/4836/>

D14.1.2 Where the contract security is a performance bond, it may be submitted in hard copy or digital format. If submitted in digital format the contract security must meet the following criteria:

- (c) the version submitted by the Contractor must have valid digital signatures and seals;
- (d) 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.
- (e) 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.
- (f) 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.
- (g) the results of the verification must provide a clear, immediate and printable indication of pass or fail regarding D14.1(b).

D14.1.3 Digital bonds failing the verification process will not be considered to be valid and may be determined to be an event of default in accordance with C18.1. If a digital bond fails the verification process, the Contractor may provide a replacement bond (in hard copy or digital format) within seven (7) Calendar Days of the City’s request or within such greater period of time as the City in their discretion, exercised reasonably, allows.

D14.1.4 Digital bonds passing the verification process will be treated as original and authentic.

D14.2 The Contractor shall provide the Contract Administrator identified in D6 with the required performance and labour and material payment bonds within seven (7) Calendar Days of notification of the award of the Contract by way of an award letter and prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract Documents, if applicable.

D14.3 The Contractor shall, as soon as practicable after entering into a contract with a Subcontractor:

- (a) give the Subcontractor written notice of the existence of the labour and material payment bond in D14.1(b); and
- (b) post a notice of the bond and/or a copy of that bond in a conspicuous location at the Site of the Work.

D15. SUBCONTRACTOR LIST

D15.1 The Contractor shall provide the Contract Administrator with a complete list of the Subcontractors whom the Contractor proposes to engage (Form J: Subcontractor List) at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract Documents, if applicable.

D16. EQUIPMENT LIST

D16.1 The Contractor shall provide the Contract Administrator with a complete list of the equipment which the Contractor proposes to utilize (Form K: Equipment 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.

D17. DETAILED WORK SCHEDULE

D17.1 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.

D17.2 The detailed work schedule shall consist of the following:

- (a) a critical path method (C.P.M.) schedule for the Work;
- (b) a Gantt chart for the Work based on the C.P.M. schedule;
- (c) a Traffic Control Plan that identifies locations and approximate timing locations and approximate timing of proposed lane closures and parking restrictions; and
- (d) a detailed deployment schedule for all crews for the Work at each site.
all acceptable to the Contract Administrator.

D17.3 Further to D17.2(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) Reinspection CCTV
- (b) Critical Stage 1 Milestone
- (c) Critical Stage 2 Milestone
- (d) WWS CCTV Inspections
- (e) LDS CCTV Inspections
- (f) SRS CCTV Inspections
- (g) Critical Stage 3 Milestone
- (h) All Associated Manhole Inspections
- (i) Substantial Performance Milestone

(j) Total Performance Milestone

D17.4 Further to D17.2(b), the Gantt chart shall show the time on a weekly basis, required to carry out the Work of each trade, or specification division. The time shall be on the horizontal axis, and the type of trade shall be on the vertical axis.

D18. REQUIREMENT FOR SITE ACCESSIBILITY PLAN

D18.1 The Contractor shall provide the Contract Administrator with an Accessibility 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.

D18.2 The Accessibility Plan shall demonstrate how the Contractor will accommodate the safe passage of pedestrians and cyclists in accordance with the Manual of Temporary Traffic Control, the Contract Drawings, Staging Plans, and Streets By-Law No. 1481/77 at all times for the duration of the Construction. Unless noted in the Contract, the Accessibility Plan must include a written plan for the following:

- (a) How the Contractor will maintain at least one crossing in each direction for each intersection (one north/south crosswalk and one east/west crosswalk).
- (b) How the Contractor will maintain access to bus stops within the site.
- (c) How the Contractor will maintain access to pedestrian corridors and half signals.
- (d) How the Contractor will maintain cycling facilities.
- (e) How the Contractor will maintain access to residents and businesses unless otherwise noted in the Contract.
- (f) Any required detour signage at adjacent crossings to facilitate sidewalk or active transportation pathway closures.

D18.3 The Accessibility Plan may also include figures, sketches, or drawings to demonstrate the proposed plan.

D18.4 The Accessibility Plan shall include written details on how the Contractor intends to review, maintain, and document all items related to the Accessibility Plan on-site during Construction, including, but not limited to:

- (a) Signage
- (b) Temporary Ramping
- (c) Transit Stops
- (d) Detour Signage

D18.5 At minimum, the Contractor shall review the site conditions on a daily basis to ensure that all features related to the Accessibility Plan are in place. The site review is intended to correct deficiencies as a result of unforeseen events such as wind, traffic, or the general public. Deficiencies that are direct result of the Contractors actions must be corrected immediately.

D18.6 Any changes to the Accessibility Plan must be approved by the Contract Administrator.

D18.7 Upon request from the Contract Administrator, the Contractor shall provide records demonstrating that the site has been maintained.

D18.8 Deficiencies as a direct result of actions by the Contractor that are not immediately corrected and/or failure to produce records that demonstrate that the site was maintained in compliance with the Accessibility Plan may result in a pay adjustment via the monthly Progress Payment. The rate of pay adjustment will be as per the following schedule:

- (a) First Offence – A warning will be issued and documented in the weekly or bi-weekly site meeting.

- (b) Second Offence - A field instruction to immediately correct the site will be issued by the Contract Administrator.
- (c) Third and subsequent Offences – A pay reduction will be issued in the amount of \$250.00 per instance and per day.

SCHEDULE OF WORK

D19. COMMENCEMENT

- D19.1 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.
- D19.2 The Contractor shall not commence any Work on the Site until:
- (a) the Contract Administrator has confirmed receipt and approval of:
 - (i) evidence of authority to carry on business specified in D11;
 - (ii) evidence of the workers compensation coverage specified in C6.15;
 - (iii) the Safe Work Plan specified in D12;
 - (iv) evidence of the insurance specified in D13;
 - (v) the contract security specified in D14;
 - (vi) the Subcontractor list specified in D15;
 - (vii) the equipment list specified in D16;
 - (viii) the detailed work schedule specified in D17;
 - (ix) the Requirement for Site Accessibility Plan in D18;
 - (x) the direct deposit application form specified in D31; and
 - (xi) the Security Clearances specified in F1.
 - (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.
- D19.3 The Contractor shall commence the Work on the Site within seven (7) Working Days of receipt of the award letter.

D20. WORK BY OTHERS

- D20.1 Further to C6.25, the Contractor's attention is directed to the fact that other Contractors, the personnel of Utilities and the staff of the City may be working within the project limit, approach roadway, adjacent roadways or right-of-way. The activities of these agencies may coincide with the Contractors execution of Work and it will be the Contractor's responsibility to cooperate to the fullest extent with other personnel working in the area, and such cooperation is an obligation of the Contractor under the terms of Contract.

D21. WORKING DAYS

- D21.1 Further to C1.1(tt), the Contract Administrator's determination of whether or not atmospheric and Site conditions are such that a Working Day is deemed to have elapsed may be based at one time on one type of work while at another time a Working Day may be based on another type of work. When more than one type of major work is involved, the quantity of equipment that must be able to work in order to meet the requirements of a Working Day may vary considerably from that specified in the General Conditions.
- D21.2 In the event that incidental work is behind schedule which, in the opinion of the Contract Administrator, should have been or could have been carried out by the Contractor in conjunction with or immediately following work of a major type, the City hereby reserves the right to charge Working Days on the incidental work until such time as it is up to schedule.

- D21.3 When the major type of work involves restoration of the site to the condition it was prior to rainfall, Working Days shall not be charged.
- D21.4 The Contract Administrator will furnish the Contractor with a daily record for each major type of work showing various information concerning the equipment, the time it worked, could have worked and Working Days charged. This report is to be signed each day by an authorized representative of the Contractor.
- D21.5 Further to D23, D23.1(c) and D25, the Contractor will be permitted one (1) suspension of on-site construction, agreed with the Contract Administrator, after the completion of all Critical Stages to allow a delay within the Contract until a period after Fall Drawdown of the Red River at St. Andrew's Lock and Dam, as necessary. This delay is to allow a return to Site where conditions are conducive to facilitate maximum exposure and inspection that meets the intent of the Contract and CW2145 for the Storm Relief System and the Land Drainage System that is directly attributed to the River. Working Days will not be charged during site suspension period where the Site must be made secure, roadways completely operational, and all existing facilities and work in progress be protected from weather or other potentially harmful effects. Changes to Contract Critical Stages or completion dates resulting from suspension of Working Days, will not be considered.
- D21.5.1 Working Days will be assessed for every day except for the following:
- (a) As per D19.3 Days prior to the Contractor starting work on a stage of the Contract. Failure of the Contractor to commence work as indicated, in the opinion of the Contract Administrator, may result in the assessment of Working Days equivalent to the estimated costs incurred to the City; and
 - (b) Days not worked due to Force Majeure.

D22. HOURS OF WORK

- D22.1 All Work shall be carried out between the hours of 07:00 and 22:00 Monday to Friday and between 09:00 and 21:00 Saturday.
- (a) No Work shall be performed outside the hours stated in D22.1 or on Sunday or Statutory or Civic holidays without written permission from the Contract Administrator. Approval will only be granted if it is in the best interests of the City to do so. Any Work for Saturday, Sunday or holidays will be counted as a Working Day.

D23. CRITICAL STAGES

- D23.1 The Contractor shall achieve critical stages of the Work in accordance with the following requirements:
- (a) Critical Stage 1 – CCTV video inspections for 72,000m (100% of the inventory) of Re-Inspection sewers having all post processed data and corresponding sewer defect coding completed and submitted to the Contract Administrator within sixty six (66) Working Days of the commencement of the Work as specified in D19;
 - (b) Critical Stage 2 – One thousand (1,000) associated Reinspection Work Type Panoramo manhole inspections (100% of the inventory) having all post processed data and corresponding manhole defect coding completed and submitted to the Contract Administrator within eighty one (81) Working Days of the commencement of the Work as specified in D19; and
 - (c) Critical Stage 3 – 100% of all Sewer Inspection Work Types having all post processed data and corresponding sewer defect coding completed and submitted to the Contract Administrator within one hundred thirty eight (138) Working Days of the commencement of the Work as specified in D19.

D24. SUBSTANTIAL PERFORMANCE

- D24.1 The Contractor shall achieve Substantial Performance within one hundred forty-eight (148) consecutive Working Days of the commencement of the Work as specified in D19.
- D24.2 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.
- D24.3 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.

D25. TOTAL PERFORMANCE

- D25.1 The Contractor shall achieve Total Performance within one hundred fifty-eight (158) consecutive Working Days of the commencement of the Work as specified in D19.
- D25.2 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.
- D25.3 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.

D26. LIQUIDATED DAMAGES

- D26.1 If the Contractor fails to achieve Critical Stages, Substantial Performance or Total Performance in accordance with the Contract by the days fixed herein for same, the Contractor shall pay the City the following amounts per Working Day for each and every Working Day following the days fixed herein for same during which such failure continues:
- (a) Critical Stage 1 - five hundred fifty dollars (\$550.00);
 - (b) Critical Stage 2 - five hundred fifty dollars (\$550.00);
 - (c) Critical Stage 3 - two thousand nine hundred dollars (\$2,900.00);
 - (d) Substantial Performance - five hundred fifty dollars (\$550.00);
 - (e) Total Performance - five hundred fifty dollars (\$550.00).
- D26.2 The amount specified for liquidated damages in D26.1 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.
- D26.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

D27. SUPPLY CHAIN DISRUPTION SCHEDULE DELAYS

- D27.1 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.

- D27.2 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.
- D27.3 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.
- D27.4 For any delay related to supply 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 D27.3. Failure to provide this notice will result in no additional time delays being considered by the City.
- D27.5 The Work schedule, including the durations identified in D23 to D25 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.
- D27.6 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.
- D27.7 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

D28. JOB MEETINGS

- D28.1 Regular bi-weekly job meetings will be held at the Site. These meetings shall be attended by a minimum of one representative of the Contract Administrator, one representative of the City and one representative of the Contractor. Each representative shall be a responsible person capable of expressing the position of the Contract Administrator, the City and the Contractor respectively on any matter discussed at the meeting including the Work schedule and the need to make any revisions to the Work schedule. The progress of the Work will be reviewed at each of these meetings.
- D28.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever they deem it necessary.

D29. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)

- D29.1 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).

D30. THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA) – QUALIFICATIONS

- D30.1 Further to B13.5, 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 B13.5.

MEASUREMENT AND PAYMENT

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.

WARRANTY

D32. WARRANTY

- D32.1 Warranty is as stated in C13.
- D32.2 The Contractor shall maintain backup copies of all video and inspection data for the duration of the Warranty Period.

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 D13, the Contractor will be required to provide wrap-up liability insurance in an amount of no less than two million dollars (\$2,000,000) 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 D13, the Contractor will be required to provide builders’ risk insurance (including boiler and machinery insurance, as applicable) providing all risks coverage at full replacement cost, or such lower level of insurance that the City may identify on a case-by-case basis, such as an installation floater.

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 D13.4, insurers shall provide satisfactory Certificates of Insurance to the Government of Manitoba prior to commencement of Work as written evidence of the insurance required. The Certificates of Insurance must provide for a minimum of thirty (30) days’ prior written notice to the Government of Manitoba in case of insurance cancellation.

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.

D36. ADJUSTMENTS FOR CHANGES IN LAWS, TAXES, OR TARRIFFS

- D36.1 Further to C12.4 and subject to C6.13, the Contract Price shall be adjusted if any change in a law or tax imposed under the Excise Act, the Excise Tax Act, the Customs Act, the Customs Tariff, The Mining Tax Act (Manitoba), or The Retail Sales Tax Act (Manitoba), by an act of the

Congress of the United States of America, or by Executive Order by the President of the United States under the International Emergency Economic Powers Act of the United States of America or similar legislation:

- (a) occurs after the Submission Deadline;
- (b) applies to the material; and
- (c) affects the cost of that material to the Contractor.

D36.2 Further to C12.5, if a change referred to in C12.4 occurs, the Contract Price shall be increased or decreased by an amount equal to the amount that is established, by an examination of the relevant records of the Contractor, to be the increase or decrease in the cost incurred that is directly attributable to that change, and which the Contractor has proven to the Contract Administrator represents the minimum amount of increase necessary in order to obtain necessary Material or Plant. For the avoidance of doubt, the Contractor shall be required to provide satisfactory proof that it has investigated alternative options for obtaining equivalent Material or Plant and reducing or eliminating the increase in Contract Price, up to and including entering into purchase agreements with vendors located in other jurisdictions, in order for Contractor to be able to avail itself of the increase in Contract Price permitted.

FORM K: EQUIPMENT
(See D16)

2025 SEWER INSPECTIONS

<p>1. Category/type:</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p>
<p>2. Category/type:</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p>
<p>3. Category/type:</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p>

FORM K: EQUIPMENT
(See D16)

2025 SEWER INSPECTIONS

<p>4. Category/type:</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p>
<p>5. Category/type:</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p>
<p>6. Category/type:</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p>

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 CW 2140-R5 (June 2023) Sewer and Manhole Cleaning.
- E1.4 CW 2145-R5 (June 2021) Sewer and Manhole Inspection.
- E1.5 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.
- E1.6 The following are applicable to the Work:

<u>Appendix No.</u>	<u>Appendix Title</u>
A	Work Program
B	Fugitive Emission Material Safety Data Sheet – Hydrogen Sulphide Gas
C	Sample Non-Disclosure Agreement
D	SD-019 – Backflow Prevention Arrangement for Water Supply From a Hydrant

<u>Drawing No.</u>	<u>Drawing Name/Title</u>
	2025 Sewer Inspections - Map Sheet Key Plan
SI-01	2025 Sewer Inspections - Map 1
SI-02	2025 Sewer Inspections - Map 2
SI-03	2025 Sewer Inspections - Map 3
SI-04	2025 Sewer Inspections - Map 4
SI-05	2025 Sewer Inspections - Map 5
SI-06	2025 Sewer Inspections - Map 6
SI-07	2025 Sewer Inspections - Map 7
SI-08	2025 Sewer Inspections - Map 8
SI-09	2025 Sewer Inspections - Map 9
SI-10	2025 Sewer Inspections - Map 10
SI-11	2025 Sewer Inspections - Map 11
SI-12	2025 Sewer Inspections - Map 12
SI-13	2025 Sewer Inspections - Map 13
SI-14	2025 Sewer Inspections - Map 14
SI-15	2025 Sewer Inspections - Map 15
SI-16	2025 Sewer Inspections - Map 16
SI-17	2025 Sewer Inspections - Map 17
SI-18	2025 Sewer Inspections - Map 18

- E1.7 Further to the provided drawings in E1.6, historical drawings and other pertinent information is available to interested parties that include all affected lift stations. In order to receive the document(s), a written request shall be submitted to the Project Manager. A signed non-

disclosure agreement form will be required prior to issuance of the document(s). A sample non-disclosure agreement has been included in Appendix C for reference. Upon receipt of the written request and signed non-disclosure agreement form, the requested document(s) will be provided.

GENERAL REQUIREMENTS

E2. CONFINED SPACE ENTRY

- E2.1 The Contractor shall be aware that Hydrogen Sulphide Gas is present in all underground structures connected to the City's sewer systems and has been known to accumulate in concentrations sufficient to cause serious harm or death to personnel who are not using adequate Personal Protective Equipment.
- E2.2 The Contractor's attention is drawn to the Province of Manitoba Workplace Safety and Health Act ("the Act"), and the Regulations and Guidelines there-under pertaining to Confined Entry Work and in particular the requirements for conducting hazard/risk assessments and providing personal protective equipment (PPE).
 - E2.2.1 Further to E2.2, the Contractor shall use an approved and properly maintained Supplied Air Breathing Apparatus when entering and working in sewers, manholes and catch basins.
 - E2.2.2 Refer to "Appendix B – Fugitive Emissions Data Sheet" for hydrogen sulphide gas.

E3. WATER SUPPLY

- E3.1 Refer to specifications CW 1120, section 3.14, CW 2140.
- E3.2 Security for hydrants during cold weather events as required by Water Services shall be paid for on an hourly basis. All other clauses related to Water Supply remain as per E3, section 3.14 of CW2140, and section 3.7 of CW1120.

E4. SITE CONDITIONS

- E4.1 The City of Winnipeg is located near the geographic center of North America. The City's geographical location results in highly variable seasonal temperatures that may affect construction. During the winter, ground freezes to about 2.5 meters depth and the impact of low temperatures must be considered for construction methods, equipment operation and rates of production. It is anticipated that an output of 1,100m of sewer inspections per Day shall be completed in the field, coded and post processed.
 - E4.1.1 The Contract Administrator shall communicate to the Bidder, in good time during the Contract, all other City and third-party projects or events that may occur in the area and concurrently to the Work. The successful Bidder will be required to adjust the cleaning and inspection program and operations away from the affected locations as necessary.

E5. SUBMITTALS

- E5.1 Further to CW 2145, Clause 3.21:
 - E5.1.1 In-pipe Inspection Emergency Plan
 - (a) The Contractor shall submit an Emergency Plan that outlines proposed methods for recovering in-line inspection equipment and Trenchless Point Repair (TPR) equipment that has become lodged, lost or uncontrollable within the sewer network. For information, the Contractor's attention is called to Clauses 3.21 and 4.7 of CW 2145.
 - E5.1.2 Manhole Inspection Sample Inspection Report
 - (a) Provide a sample report of a manhole inspection, including digital data files, of an actual manhole performed by each device to be used on this Contract for review at least two (2) weeks before beginning the manhole inspection work.

- (b) Submit two (2) copies of the data to the Contract Administrator. Provide the appropriate viewing software, associated image and point cloud data and associated files to enable the interactive review of the inspection of the sample inspection for each device to be used as part of the submittal where viewing software will be provided at no additional cost to the Contract Administrator. The Contract Administrator will review the inspections for completeness and accuracy of content, to ensure that the required information is provided, and the image quality is acceptable. If the Contract Administrator determines that the image or data are defective or not of adequate quality, the Contractor shall re-perform the MACP inspection at the Contractor's expense.
- (c) Submit one MACP (version 7.0.0 or newer) compliant Microsoft Access, manhole inspection Databases containing inspection and defect information. Manhole condition coding shall be submitted as a MACP.mdb file accordingly. Name the MACP database according to the following file specification: [Contractor Name]_[Contract Number]_MACP_Submittal ##.mdb.
- (d) Submit a pdf copy of the manhole inspection logs to the Contract Administrator. Logs shall record defects according to NASSCO's MACP.
- (e) Submit sample observation photos in the sample submittal.
- (f) Clearly identify the equipment make, model and serial number for the sample and all submittals.
- (g) Demonstrate the resolution of each camera using the recording resolution specified herein.
- (h) No inspection work is to be performed until the sample inspection report has been accepted by the Contract Administrator.
- (i) Inspection reports shall be completed within two (2) weeks of the completion of a work area or intermittent submittals as approved by the Contract Administrator.
- (j) Submit copies of current NASSCO MACP certifications for all Inspectors and Reviewers who shall perform the Contracted Work in accordance with NASSCO requirements having attained and retained their MACP certifications.
- (k) Submit a written description of procedures to be used to the Contract Administrator, including product literature for all digital video equipment including, but not limited to side scanning post processed and point cloud data and reader software.

E6. SEWER CLEANING

E6.1 This specification amends and supplements specification CW 2140.

E6.2 Types of Cleaning shall be undertaken in accordance with this specification in order to be able to conduct a NASSCO compliant inspection, include Sewer Cleaning, Removal of Excessive Grease and/or Roots, Solid Debris Cutting, Removing Intruding Sewer Taps for all sewer diameter ranges and flow types identified below:

- (a) Further to Clause 3.5.2, the Contractor shall remove 95% of all loose floating, solid or semi-solid debris for:
 - (i) All Wastewater Sewers smaller than 450mm;
 - (ii) All Interceptor (CS), Land Drainage, Re-Inspection, and Storm Relief Sewers smaller than 900mm.
- (b) Further to Clause 3.5.2, the following sewers shall be inspected without pre-cleaning unless directed otherwise by the Contract Administrator. Where cleaning is required for the completion of the inspections, cleaning will be in accordance to E5:
 - (i) All Wastewater Sewers 450mm and greater;
 - (ii) All Interceptor (CS), Land Drainage, Reinspection and Storm Relief Sewers 900mm and greater.

- E6.3 Further to Section 3.5, the Contractor shall clean the sewer pipe using the step-cleaning method or similar described in this Contract for the entire length of the pipe using a high-pressure water jetter to remove loose or settled debris and shall operate the equipment so that the pressurized nozzle continues to move at all times. The pressurized nozzle shall be turned off or reduced anytime it is stationary or delayed in order to prevent damage to the sewer.
- E6.4 Further to Section 3.5 the cleaning process shall be carried out using the step-cleaning method or similar using the appropriate carrying capacity of each jetter nozzle for the respective sewer pipe height and shape. This means that the Contractor shall clean an initial portion of the pipe for a length appropriate to the carrying capacity of each jetter nozzle, sewer pipe height and shape and level of debris encountered, pulling back debris to the manhole. The Contractor shall then clean successive increments of pipe in the same way, each time pulling the displaced debris in solution back over increments of pipe previously cleaned. The Contractor will complete the cleaning using the step method approach through the entire segment of the pipeline with a high-pressure water jetter to ensure the sewer is adequately cleaned to complete the work. All sediments and residual wastes shall be evacuated from each successive downstream manhole as the cleaning progresses.
- (a) Under no circumstances shall sewage or solids removed from the sewer line be dumped onto streets, catch basins, storm drains, or receiving waters.
 - (b) All materials removed shall be properly disposed at a landfill licensed to receive the applicable wastes.
 - (c) During the final cleaning pass, the CCTV inspection camera shall be mobilized to inspect the sewer segment while the jet nozzle pulls water away from the camera, drawing any water level down to maximize the exposure of the sewer pipe circumference.
- E6.5 In the event the Contractor is unable to completely perform CCTV inspection or cleaning from both directions due to obstructions (with the exception of a cross bore or collapse), the Contractor must inform the Contract Administrator of this immediately. Upon approval by the Contract Administrator, the Contractor shall have the obstructions removed using specialty cleaning equipment capable of removing the obstruction and simultaneously viewing the cleaning activity from the same vantage point in order to view the cleaning operation and not cause any damage to the host pipe.
- E6.6 During all sewer cleaning operations, satisfactory precautions shall be taken to protect the sewer lines from damage that might be inflicted by the improper use of cleaning equipment. Whenever hydraulically propelled cleaning tools which depend upon water pressure to provide their cleaning force or any tools which retard the flow of water in the sewer line are used, precautions shall be taken to ensure that the water pressure created does not cause any damage or flooding to public or private property being served by the sewer segment involved.
- E6.7 Further to Section 3.5, the Contractor shall remove the upstream manhole cover during sewer cleaning.
- E6.8 The Contractor is wholly responsible for determining if the line is adequately cleaned to perform the televising inspection.
- E6.9 Further to Clause 3.5.10, the Contractor shall be made aware of the locations on the Drawings labelled as Synergen Trouble Spots. These locations are recorded in the City's database as areas which require regular maintenance.
- E6.10 Further to Section 3.5, the distance required for the nozzle to travel in the sewer shall be limited to one manhole-to-manhole sewer section unless approved by the Contract Administrator.
- E6.11 Further to Clause 3.9.2, no decanting shall occur within 3 sewer sections upstream of a lift station. If decanting is required, it shall be done immediately downstream of the lift station.
- E6.12 Cleaning of sewers not meeting E6 requirements shall be rejected. The Contract Administrator shall instruct the Contractor to remobilize, reclean and reinspect the asset as per the specifications to the satisfaction of the Contract Administrator unless the Contractor can

demonstrate site limitations and conditions that prevent adequate cleaning. Additional costs incurred by the Contractor associated with the recleaning and reinspection shall be the responsibility of the Contractor. Accepted cleaning and corresponding inspection shall be paid as per Clause 4.1.

E7. MANHOLE CLEANING

E7.1 This specification amends and supplements specification CW 2140.

E7.2 High Flow Conditions:

- (a) The Contractor shall attempt cleaning and inspection at times that facilitate obtaining the maximum visible image above the flow surface which are typically at the diurnal low flow periods each day or at night. Work that cannot be completed due to excess water levels shall be coordinated with the Contract Administrator.
- (b) If manhole chambers are observed to be surcharged the Contractor shall communicate the observation to the Contract Administrator via the SharePoint Site under "Manholes of Concern".
- (c) The Contract Administrator, Contractor shall collaborate to determine if there is a hydraulic or operational restriction within the area.
- (d) If hydraulic overload is determined by the Contract Administrator, cleaning and inspection shall take place during a low diurnal period, such as nighttime to ensure a full cleaning and inspection of the chamber is completed.
- (e) If an operational issue exists within the Contracted Work, the cleaning of associated sewers shall be completed to alleviate and reduce flow. Otherwise, the Contract Administrator will instruct whether an incomplete inspection be carried out of the surcharged manhole chamber.
- (f) If an operational issue exists outside of the Contracted Work, the cleaning of associated sewers shall be reviewed by the Contract Administrator to alleviate and reduce flow. Additional assets cleaned will be paid as per Clause 4.1.1 with additional time consideration made by the Contract Administrator. Otherwise, the Contract Administrator will instruct whether an incomplete inspection be carried out of the surcharged manhole chamber.

E7.3 Further to Clause 3.5.7, all manhole cleaning shall commence in the upper chimney component of the manhole moving loose debris, gravel, ragging etc. to the lower cone and wall components and to the benching and channel regardless of the method chosen to clean the sections. Cleaning shall include the trapping and removal of all sediments and residual wastes from the invert of the manhole as the cleaning progresses. Any debris moved into the associated (predominant) mainline sewers shall be subsequently cleaned where:

- (a) The intent of manhole cleaning is to remove foreign material such as bricks, rocks, dirt, grease, settled deposits (sand and grit), solids, fine roots, and other debris using multiple passes using a cleaning wand associated with the high-pressure water jetter equipment and extraction of deleterious material in order to be able to conduct a NASSCO compliant inspection.
- (b) The Contractor shall evaluate if the manhole is adequately cleaned to justify scanning inspection work after cleaning. The Contractor is wholly responsible for determining if the chamber is adequately cleaned to complete the scanning inspection.
- (c) During all manhole cleaning operations, satisfactory precautions shall be taken to protect the manhole chamber from damage that might be inflicted by the improper use of cleaning equipment. Whenever hydraulically propelled or pressurized cleaning tools which depend upon water pressure to provide their cleaning force or any tools which retard the flow of water in the manhole chamber are used, precautions shall be taken to ensure that the water pressure created does not cause any damage or flooding to the manhole or to public or private property being served by the manhole or surrounding sewers involved.

- (d) The Contractor shall operate the vacuum hose local to the outgoing channel and pipe in such a manner that solids and debris are trapped and removed. No silts, sand, gravel, debris, etc., shall be allowed to pass into the downstream pipe.
- (e) The cleaning and inspection submittal shall be rejected if the inspection observes debris within the interconnecting mainline sewers that are identified to be cleaned under this Contract by the Contract Administrator. The Contractor shall be instructed to revisit, re-clean and re-inspect the asset at no additional cost.
- (f) Under no circumstances shall sewage or solids removed from the manhole be dumped onto streets, catch basins, storm drains, or receiving waters.
- (g) All materials removed shall be properly disposed at a landfill licensed to receive the applicable wastes.

E7.4 Cleaning of manholes not meeting E7 requirements shall be rejected. The Contract Administrator shall instruct the Contractor to remobilize, reclean and reinspect the asset as per the specifications to the satisfaction of the Contract Administrator unless the Contractor can demonstrate site limitations and conditions that prevent adequate cleaning. Additional costs incurred by the Contractor associated with the recleaning and reinspection shall be the responsibility of the Contractor.

E7.5 Accepted cleaning and corresponding inspection shall be paid as per Clause 4.5.1.

E8. MISCELLANEOUS MANHOLE CLEANING

E8.1 For the purpose of the Work, Miscellaneous Manholes include; access manholes, control structures, flush tank and overflow chambers, as identified on the drawings and as listed in Form B: Prices.

E8.2 Miscellaneous manhole cleaning is deemed additional efforts in excess of the requirements set out in CW2140 and E7; examples may be the removal of hardened concrete or bituminous asphalt found within the manhole channel. Perform Miscellaneous Manhole Cleaning only as required by the Contract Administrator.

E8.3 Clean manholes using all equipment, personnel, traffic control and supporting vehicles, activities and operations employed in the performance of the Work.

E8.4 Miscellaneous manhole cleaning will be measured on a unit basis and paid for at the Contract Unit Price for "Miscellaneous Manhole Cleaning". The amount to be paid will be the total number of Miscellaneous Manholes cleaned in this Contract, accepted and measured by the Contract Administrator. Time spent for debris disposal and mobilization/demobilization to and from the site will be included in the Contract Unit Price for "Miscellaneous Manhole Cleaning".

E9. SEWER INSPECTION

E9.1 This specification amends and supplements specification CW 2145.

E9.2 All open access structures or manholes will be attended at all times, and all access control structures or manholes that are sealed or bolted to control odours or entry of extraneous water or for security reasons will require permissions prior to opening by the Contract Administrator and in turn by City Operations. The Contractor shall liaise with the Contract Administrator to ensure that sealed or bolted chambers have been adequately sealed or bolted, post inspection.

E9.3 Where drop connections are observed, the camera shall pan and zoom into the "Tap" connection to observe defects and provide comment within the remarks column of the Tap entry using NASSCO's order of severity rules.

E9.4 Further to Section 3.7.4, operators failing to provide copies of their NASSCO certification and / or meet the accuracy requirements on two occasions will not be permitted to code on the remainder of the Contract until they can demonstrate to the Contract Administrator that they can

code in accordance with the requirements of the NASSCO PACP and MACP version 7.0.0 of the manual or greater.

- E9.5 Further to Section 3.13, a paper or “hard copy” of the inspection reports are not required and the following digital format submissions shall be provided:
- (a) The Contractor shall maintain backup copies of all digital video and inspection data submissions for the duration of the Warranty Period as stated in C13.
 - (b) The Contractor shall supply separately two (2) duplicated, 2.5 inch portable HDD’s, complete with all operating software, power adaptors and USB cables, containing all video inspections, post-processed data, inspection PACP and MACP defect coded reports and coding data to the City upon completion of the project.
 - (c) All HDD’s shall be sized appropriately to accommodate all above mentioned files and have dual USB 3.0 (preferable) and (a minimum) USB 2.0 compatibility with a minimum data transfer rate of 480 MB/s.
 - (d) The Contractor shall submit within one (1) week of sewer inspection the sewer inspection deliverables as per E9 to the project SharePoint site under the “2022 Inspections” link. In the event the SharePoint site is non-functional, communication to the Contract Administrator shall be made to ensure compliance, otherwise the Contractor shall submit a separate HDD to the Contract Administrator.
- E9.6 The Contract drawings are based on information contained in the City’s GIS database. If the Contractor has trouble interpreting the drawings, or if they believe them to be wrong, the Contract Administrator shall be approached for assistance/clarification.
- (a) The Contractor shall assist the Contract Administrator in making any required measurements for the correction of errors found on the Drawings.
- E9.7 Replace Clause 3.11.1 with:
- E9.7.1 Capture the inspections in digital format in colour from the live video source on HDD to the following minimum requirements.
- (a) For sewer diameters less than 1800mm in height the minimum camera lens and recording requirements will be:
 - (i) XDVD MPEG-2 or MPEG-4 format (MPEG-4 preferred).
 - (ii) Picture Size: NTSC 720 x 480 (or greater) @ 29.97 frames per second.
 - (iii) Data/Bit Rate: 6.0 Mbit/sec.
 - (b) For sewer diameters 1800mm in height and larger, the minimum camera lens and recording requirements will be:
 - (i) XDVD MPEG-2 or MPEG-4 format (MPEG-4 preferred).
 - (ii) Picture Size: 1024x768 (or greater) @ 29.97 (minimum) frames per second.
 - (iii) Data/Bit Rate: 6.0 Mbit/sec.
 - (c) The use of Side Wall Scanning technologies resolution shall be at a level of resolution as per E9.7 to ensure pipe wall loss clarity is provided within the imagery. Viewing software shall be provided at no cost to the City or the Contract Administrator to ensure the user has full autonomy when viewing the sewer pipe. Pre-recorded video shall also be submitted for Side Wall Scanning technologies in addition to specialty autonomous viewing software and data. No water droplets, debris marks or similar shall exist on the lens that would cause image blur or inhibit the clear and uninterrupted view of the pipe during the inspection. Side Wall Scanning technology platforms shall be used having sufficient illumination within given diameters as per the camera manufacturer’s recommendations.
- E9.7.2 Further to Clause 3.8 and E9.7 video imagery must not contain black or other coloured or other erroneous columns or bands where formatting of lesser resolution camera lens recordings have been resized to meet the Picture Size requirements of this specification.

Video will be reviewed by the Contract Administrator with the potential for rejection if these bands or columns are observed.

E10. MANHOLE INSPECTION

- E10.1 This specification amends and supplements specification CW 2145.
- E10.2 Identified manholes for cleaning and inspection are contained within Appendix A of this specification.
- E10.3 Inspection of manholes will use side scanning imagery and point cloud collection equipment only to NASSCO MACP Level 2 inspections for the purposes of assessing thoroughness of cleaning, observing and recording structural and service defects and construction features of existing manhole and control structure assets and to verify new and rehabilitated sewer construction prior to acceptance.
- E10.4 The Contractor shall submit within three (3) weeks of manhole inspection the manhole inspection deliverables as per E10 to the project SharePoint site under the “2022 Inspections” link. In the event the SharePoint site is non-functional, communication to the Contract Administrator shall be made to ensure compliance, otherwise the Contractor shall submit a separate HDD to the Contract Administrator.
- E10.5 Replace Clause 3.6 with:
- (a) Perform NASSCO MACP V7.0.0 or greater manhole condition Level 2 inspection and coding in general accordance with E10 of this specification and with the following additional requirements.
 - (b) The following fields shall be used when completing the “Header” details in the manhole inspection header form. By default, Field 5 the “Owner” is City of Winnipeg and Field 6, the “Customer” will be the Contract Administrator for 288-2025, AECOM.
 - (i) Field 38 – 43 data shall be collected using a hand-held GPS device to achieve Nearest (N) or sub-meter (M) accuracies dependent upon available satellite coverage.
- E10.6 Further to Section 3.6, Field 34-37 of the Measurements section shall be measured in whole numbers and expressed in millimetres.

E11. SEWER INSPECTION EQUIPMENT

- E11.1 Sewer Inspection Equipment
- E11.1.1 In-Line sewer inspection equipment shall be comprised of a self-propelled track-mounted platform bearing multiple inspection sensors / technologies that can undertake simultaneous remote inspection in sewers of all diameter ranges.
- E11.1.2 In areas where a self-propelled track-mounted platform is not possible to use during the inspections, the inspections shall be performed using a float or skid system. The Contractor shall notify the Contract Administrator prior to the use of a float or skid platform, tethered by use of flusher hosing capable at distances stated in E11.2.1(b).
- E11.2 In-Line CCTV Inspection Platform
- E11.2.1 Minimum requirements of the in-line inspection platform that meets the intent of B13.8, that include:
- (a) Independently controlled drive tracks that enable the platform to manoeuvre around bends and climb over debris up to 300mm in height.
 - (b) Operable under partially or fully submerged flow conditions, for distances up to 600m upstream or downstream from a single access point.

- (c) Operable in sewers of various cross-section, and constructed of standard pipe materials including brick, clay, concrete, PVC, HDPE, and steel.
- (d) Tethered to facilitate the conveyance and extraction of the platform from the sewer, without causing damage to the sewer infrastructure, in the event the equipment fails or otherwise becomes uncontrollable within the sewer.
- (e) Equipped with sufficient high intensity lighting to illuminate the sewer for visual inspection at the widest horizontal viewing angle and the pipe's side periphery.
 - (i) Lighting for the camera shall be waterproof and suitable to allow a clear picture of the entire periphery of the pipe. The camera shall be operative and provide a clear picture in 100 percent humidity conditions.
 - (ii) An unclear picture due to excessive lighting (image flare), the lack of lighting or the presence of fog, steam, or excessive humidity will be considered unsatisfactory. The Contractor is responsible for identifying and implementing corrective actions to obtain suitable video quality, such as using fans or ventilation systems to dissipate the fog or by the heating of incoming air to mitigate fog.
 - (iii) Light heads shall be changed upon the request of the Contract Administrator.
- (f) A blurred picture due to fats, oil or grease or a failure in one or all of the primary colour additives, Red, Green, Blue (RGB) visuals will be considered unsatisfactory. The Contractor is responsible for identifying and implementing corrective actions to obtain suitable video quality, such as cleaning the sewer mainline, having the camera lens cleaned prior to reinspection of the mainline.
- (g) The Contractor is responsible for presenting issues regarding questionable video quality immediately to the attention of the Contract Administrator.

E11.3 Hand Held Camera Use

- E11.3.1 Further to Section 3.17 and subject to E11.2.1 a hand held waterproof "Go Pro" © or alternative approved by the Contract Administrator may be used to perform inspections within the large diameter (1800mm in height or larger) Land Drainage System (LDS) Inspections where current debris levels exceed E11.2.1 inhibiting traditional CCTV inspections in accordance with the following:
 - (a) Camera to be waterproof and of similar quality or better as per Section 3.11;
 - (b) Handheld adequate intrinsically safe even lighting shall be used and panned simultaneously with the camera as necessary;
 - (c) A measuring device shall be used in accordance with CW2145 to facilitate defect positioning. The laser pointing device with paint sprayed chainage distances shall be applied above the spring line at 2m intervals on the interior pipe wall face for distance correlation.
 - (d) Operator shall attempt to maintain a camera position center to the pipe, walking downstream, pausing to pan observed defects and cross referenced with the distance attained using zoom functions as necessary, centering the camera back to the forward observing position to continue the survey; and
 - (e) Attempt to complete the inspection for the entire LDS pipe to the downstream node.
- E11.3.2 Handheld Inspections will be measured on a length basis for each LDS and paid for at the Contract Unit Price for the pipes corresponding diameter range within the "Sewer Inspections" section. Length to be paid for will be the total steel tape measured length of Sewer inspected in accordance with this specification, accepted and measured by the Contract Administrator.
- E11.3.3 No confined space entry shall be completed without Contract Administrators approval. The Contractor shall review the health and safety implications and need of accessing the LDS asset to carry out the Work. The Contractor shall provide a LDS Person Entry Health and Safety Risk Assessment for review by the City via the Contract Administrator prior to Work being approved to go ahead.

E12. DIGITAL PANORAMIC MANHOLE INSPECTION

- E12.1 Notwithstanding CW 2145, inspect manholes using digital panoramic manhole inspection system such as the IBAK PANORAMO SI, RST Helix or equivalent shall meet the following criteria:
- (a) The inspection camera system must be 100% digital, having submitted software that will provide and allow the autonomous viewing of the chamber to facilitate the Condition Assessment process. Any analog or NTSC video camera will be deemed unacceptable.
 - (b) Perform manhole condition coding in accordance with the requirements of the NASSCO MACP V7.00 or greater.
 - (c) Perform condition coding using operators who are certified in accordance with the National Association of Sewer Service Companies (NASSCO) having attained and retained their "Manhole Assessment Certification Program" (MACP) certification.
 - (d) Operators failing to meet the accuracy requirements on two occasions will not be permitted to code on the remainder of the contract until they can demonstrate to the Contract Administrator that they can code in accordance with the requirements of the NASSCO MACP V7.0.0 manual or greater.
 - (e) The inspection camera system must have two independently or simultaneously controlled digital cameras, one facing in the downward direction and one facing in the upward direction. Each camera must have a minimum of 185 degree field of view.
 - (f) The inspection camera system must provide sufficient illumination of the interior of the manhole to obtain proper exposure without introducing any motion blur. The light shall be positioned to distribute the light evenly onto the structure walls. The lighting must be able to illuminate manholes without the need of any auxiliary lighting having a recommended contrast set to less than 1.5.
 - (g) The inspection system shall produce individual images or frames with no more than 0.001 inches (0.025mm) of movement during image or frame exposure to produce crisp, clear images. Inspections showing evidence of corrupt or erroneous imagery, scratched lenses or protective glass plate or similar due to poor handling and application shall be rejected.
 - (h) The inspection camera must provide a minimum of 3000 line of vertical resolution in the side view and a minimum of 500 lines in the perspective view.
 - (i) Contractor is responsible for reviewing collected data, coding observations, however the City must have the ability to view the digital film file in the way that the contractor can view them, including full control of the virtual pan and tilt.
 - (j) The digital film files will be captured to a "High Quality" setting that must include an unfolded view of the manhole with a minimum of 3000 lines of vertical resolution, providing all front, back and wrapped images that will be, at a minimum height and width of 1040x1040 pixels, to a resolution of 96 dots per inch. Latest 4k technologies will also be reviewed for acceptance.
 - (k) The digital film files must include the capability to produce a three dimensional representation of the manhole structure. This data shall be used to perform geometric measurements. This file shall be exportable to common CAD programs for further analysis.
 - (l) The digital file files must include a distortion-free virtual pan and tilt allowing the review of the manhole structure from any angle from any depth. The virtual pan and tilt must be able to view 360 degrees in any direction. The virtual pan and tilt must consist of views from the top and bottom camera, any virtual pan and tilts that artificially create this view from a single camera will be deemed unacceptable due to distorted images on the direct side view.
 - (m) The virtual pan and tilt and unfolded views must be able to be viewable by the City with all the required executable software included for each disc and HDD at no additional cost to the Contract Administrator or the City of Winnipeg.
 - (n) The Contractor shall provide the database.

- (o) The inspection system must descend to the lowest point within the manhole chamber to a depth that will facilitate accurate perpendicular measurements using the software's measuring tools to occur.
- (p) Any inspection exhibiting an incomplete descent having a distance greater than one (1) metre above the invert or water level resulting to data interpolation, will be rejected unless appurtenances or obstructions are present within the chamber and accepted by the Contract Administrator.
- (q) All chambers that exhibit weir wall or spill pipe weir levels as observed within the field or identified, but not limited to control structures or manholes identified within the Construction Drawings, must be recorded as an MGO and its measurement from manhole rim to weir crest recorded within the remarks field.
- (r) Further to Clause 3.11.5 provide file names within the 360Player.exe software, manholes to be in alpha numeric order to ensure efficient reference.
- (s) Manhole condition coding shall be submitted to the Contract Administrator as per E10.

E12.2 Further to Clause 3.17.8:

- (a) A skilled and NASSCO MACP certified technician or supervisor who shall be located at the control panel in the mobile data collection studio shall control the operation of the digital panoramic inspection equipment. Perform manhole inspections in accordance with the following:
 - (i) From the top to the bottom of the manhole.
 - (ii) From the manhole frame to the center line elevation of the existing sewer.
 - (iii) Ensure the frame of the manhole is clearly visible at the start of the inspection.
 - (iv) Provide a chalk or dry-erase-board placed adjacent to the manhole cover, within the inspection imagery, noting the Date, Contract #, Manhole Asset ID # and physical measurement of manhole rim to invert dimension.
 - (v) Provide a second chalk or dry-erase-board placed adjacent to the manhole cover, within the inspection imagery, using an arrow to indicate where North is located.
 - (vi) Spray paint a mark (with a colour consistent for the duration of the project and a different color to the North point) indicating the 6 o'clock position that is in reference to the first outgoing pipe (taken from north in a clockwise direction, as per NASSCO MACP requirements) visible on the surface and within the manhole frame. Plastic templates placed on the surface may also be used to represent the North point and the 6 o'clock position.
 - (vii) Block ambient light during the inspection to minimize problems related to lens flare and poor contrast. Latest technologies now incorporate sun shields; where possible, ensure image capture surrounding the above ground environments for site familiarisation / orientation is completed.
 - (viii) Inspect the manhole to the lowest depth that will facilitate accurate perpendicular measurements using the software's measuring tools. Depth distances shall be provided in millimetres as per E10.6.
 - (ix) Complete all steel tape or calibrated footage counter measurements pertinent to mandatory MACP Level 2 measurements that are located at or around the cover and frame area. In accordance with NASSCO MACP standards, the Contractor shall measure the rim to invert using a steel tape or calibrated footage counter from the surface to validate the measurement available from the panoramic scan.
 - (x) No confined space entry shall be completed without Contract Administrators approval.

E13. LIFT STATION CLEANING

- E13.1 For the purpose of the Work, Lift Station Cleaning shall include Wet Well Chamber cleaning as identified by the Contract Administrator.

- E13.2 The Proponent can request As-Built records of the Lift Stations during the Bid Process and will be supplied by the Contract Administrator. Further consultation will be required prior to cleaning activities with City Operations.
- (a) Woodhaven Lift Station;
 - (b) Marion Lift Station;
 - (c) Despins Lift Station; and
 - (d) Montcalm Lift Station.
- E13.3 The Contractor shall review the health and safety implications and need of accessing the Lift Stations to carry out the Work. The Contractor shall provide a Lift Station Access Health and Safety Risk Assessment for review by the City via the Contract Administrator prior to Work being approved to go ahead.
- E13.4 Perform Lift Station Cleaning as required by the Contract Administrator.
- E13.5 Clean Lift Stations using all equipment, personnel, traffic control and supporting vehicles, activities and operations employed in the performance of the Work.
- E13.6 Lift Station Cleaning will be measured on a time basis and paid for at the Contract Unit Price for "Lift Station Cleaning". The amount to be paid will be the total number of hours spent cleaning Lift Station Wet Well Chambers and other associated Lift Station Appurtenances in this Contract, accepted and measured by the Contract Administrator. Time spent for debris disposal and mobilization/demobilization to and from the site will be included in the Contract Unit Price for "Lift Station Cleaning".

E14. SEWERS LOCAL TO HOSPITALS

E14.1 Sewer adjacent to and on St. Boniface Hospital property have been identified where further coordination may be required with hospital operations. Further, these assets may require overnight scheduling due to traffic in and around the hospital. The Contractor must ensure emergency entrance / exits to the hospital are maintained at all times.

E14.2 Sewers labeled as being local to hospitals include but are not limited to the following:

Sewers on St. Boniface Hospital Property			
S-MA50008345	S-MA70003480	S-MA70015935	S-MA70015955
S-MA70025839	S-MA70025840	S-MA70025848	S-MA70025855
S-MA70025860	S-MA70025867	S-MA70025872	S-MA70040766
S-MA70040767	S-MA70063725	S-MA70063726	S-MA70063727
Sewers Local to St. Boniface Hospital			
S-MA50003111	S-MA50003129	S-MA50003130	S-MA50003131
S-MA50003132	S-MA50003133	S-MA50003134	S-MA50003136
S-MA50003137	S-MA50003142	S-MA50003152	S-MA50003441
S-MA50003442	S-MA50008345	S-MA70003480	S-MA70015935
S-MA70015955	S-MA70017690	S-MA70025839	S-MA70025840
S-MA70025848	S-MA70025855	S-MA70025860	S-MA70025867
S-MA70025872	S-MA70026805	S-MA70026806	S-MA70028366

S-MA70040585	S-MA70040766	S-MA70040767	S-MA70063725
S-MA70063726	S-MA70063727	S-MA70074761	S-MA70074762

E15. SEWERS LOCAL TO SCHOOLS

E15.1 Sewers adjacent to schools have been identified where further coordination will be required for lane closures and / or temporary use of school facilities are noted but not limited to the list below:

Archwood School – 800 Archibald ST			
S-MA50007727	S-MA50007728	S-MA50007729	S-MA50007730
S-MA50007732	S-MA50007743	S-MA50007744	S-MA50007754
S-MA50007755	S-MA50010685	S-MA50010694	S-MA50010697
S-MA70003443	S-MA70033701	S-MA70033704	S-MA70045608
S-MA70045609	S-MA70045621	S-MA70045641	S-MA70045655
S-MA70045664	S-MA70045681	S-MA70045682	S-MA70045683
S-MA70119492			

Bannatyne School – 303 Thompson DR			
S-MA20005649	S-MA20005734	S-MA20005784	S-MA20005795
S-MA20005798	S-MA20005800	S-MA20005809	S-MA20006372
S-MA20006376	S-MA20006389	S-MA20006390	S-MA20006470
S-MA70029406	S-MA70029407	S-MA70046724	

Centre Scolaire Leo Remillard – 1095 St. Anne's RD			
S-MA50007604	S-MA70003804	S-MA70049284	S-MA70049287
S-MA70049288	S-MA70049289	S-MA70049295	S-MA70049296
S-MA70049297			

Clifton School – 1070 Clifton ST			
S-MA20009374	S-MA20009414	S-MA20009415	S-MA20009416
S-MA20010030	S-MA20010031	S-MA20010089	

Ecole Christine Lesperance – 425 John Forsyth RD			
S-MA50001066	S-MA50001068	S-MA50001632	S-MA70005035
S-MA70005036	S-MA70005037	S-MA70005045	

Ecole George V School – 265 Grey ST			
S-MA40007114	S-MA40007525	S-MA40007529	S-MA40007536
S-MA40007539	S-MA40007542	S-MA40007545	S-MA40007579
S-MA40007585	S-MA40007586	S-MA40007598	S-MA40007599
S-MA40007604	S-MA40007608	S-MA40007609	S-MA40007610
S-MA40007611	S-MA40007659	S-MA40008242	S-MA40008245
S-MA40008247	S-MA40008248	S-MA40008249	S-MA40008250
S-MA40008251	S-MA40008252	S-MA40008253	S-MA40008265
S-MA40008284	S-MA40008288	S-MA40008291	S-MA40008295
S-MA40008306	S-MA40008307	S-MA40008310	S-MA40008316
S-MA40008321	S-MA40008334	S-MA40008337	S-MA40008338
S-MA40010701	S-MA40010708	S-MA40010709	S-MA40010710
S-MA40010777	S-MA40010778	S-MA40011671	S-MA40011672
S-MA70041921	S-MA70068139		

Ecole Henri Bergeron – 363 Enfield CR			
S-MA50002795	S-MA50002796	S-MA50002797	S-MA50002798
S-MA50008683	S-MA50008695	S-MA70057647	S-MA70057648
S-MA70057865			

Ecole Howden – 150 Howden RD			
S-MA50005422	S-MA50005423	S-MA50005424	S-MA50005425
S-MA50005426	S-MA50005447	S-MA50005448,	S-MA50006237
S-MA50006239	S-MA50006240	S-MA50006241	S-MA50006242
S-MA50006243	S-MA50006249	S-MA50006250	S-MA50006253
S-MA50009078	S-MA50009175	S-MA50015010	S-MA70023015
S-MA70023016			

Ecole Provencher & Norwood French Immersion Preschool – 320 De La Cathedrale AV			
S-MA50002718	S-MA50002720	S-MA50002724	S-MA50010656
S-MA50010995	S-MA70002106	S-MA70002107	S-MA70002110
S-MA70003567	S-MA70003568	S-MA70042965	

Ecole St. Germain – 77 John Forsyth RD			
S-MA50006785	S-MA50006789	S-MA50006790	S-MA50006792
S-MA50006793	S-MA50006799	S-MA50006800	S-MA50006801
S-MA50006816	S-MA50006817	S-MA50006818	S-MA50006819
S-MA50006820	S-MA50006821	S-MA50006822	S-MA50006823
S-MA50010092	S-MA50010093		

Elmwood High School – 505 Chalmers AV			
S-MA40008221	S-MA40008279	S-MA40008280	S-MA40008283
S-MA40008287	S-MA40008297	S-MA40008298	S-MA40008374
S-MA40008376			

Golden Gate Middle School – 330 Bruce AV			
S-MA20005323	S-MA20005497	S-MA20005498	S-MA20005499
S-MA20005824	S-MA20005825	S-MA20005828	S-MA20005829
S-MA20006061	S-MA20006063	S-MA20006397	S-MA20006400
S-MA70128440	S-MA70128441		

H.S. Paul School – 164 Southglen BV			
S-MA50006996	S-MA50006997	S-MA50006999	S-MA50007003
S-MA50007506	S-MA50007507	S-MA50007508	S-MA50007509
S-MA50007510	S-MA50007511	S-MA50007512	S-MA50007513
S-MA50007516	S-MA50007538	S-MA50007539	S-MA50007548
S-MA50007569	S-MA50007834	S-MA50007860	S-MA50007872
S-MA50007877	S-MA50007878	S-MA50007879	S-MA50007880

S-MA50008705	S-MA50010065	S-MA50010065	S-MA50010068
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Highbury School – 1265 Barratt AV			
S-MA50000894	S-MA50000895	S-MA50000896	S-MA50000900
S-MA50000901	S-MA50000919	S-MA50000920	S-MA50000921
S-MA50000922	S-MA50001069	S-MA50001630	S-MA50001633
S-MA50007461	S-MA50008115	S-MA50008126	S-MA50008128
S-MA50008131			

Jameswood Community School – 1 Braintree CR			
S-MA20006075	S-MA20006078	S-MA20006090	S-MA20006093
S-MA20006096	S-MA20006102	S-MA20006109	S-MA20006173
S-MA20006175	S-MA20006176	S-MA20006178	S-MA70030626

Kent Road School – 361 Kent RD			
S-MA40010346	S-MA40010347	S-MA40010351	S-MA40010354
S-MA40010357	S-MA40010848	S-MA40010852	S-MA40010856
S-MA40010857	S-MA40010862	S-MA40010906	S-MA40010909
S-MA40010910	S-MA40010911	S-MA40010926	S-MA40010927
S-MA40010932	S-MA40010938	S-MA40010939	S-MA40010944
S-MA40010945	S-MA40010950	S-MA40010951	S-MA40010960
S-MA40010961	S-MA40010964	S-MA40010968	S-MA40010974
S-MA70010170	S-MA70010171	S-MA70010172	

Louis Riel Arts and Technology Centre – 5 Bourmont AV			
S-MA50005427	S-MA50005439	S-MA50005440	S-MA50005462
S-MA50005463	S-MA50005472	S-MA50007007	S-MA50007009
S-MA50007015	S-MA50010911	S-MA70004878	S-MA70004882
S-MA70051332			

Prairie Central Adventist Academy – 56 Grey ST			
S-MA40011027	S-MA40011029	S-MA40011033	S-MA40011039
S-MA40011040	S-MA40011043	S-MA40011069	S-MA40011070
S-MA40011088	S-MA40011090	S-MA40011091	S-MA40011103
S-MA40011108	S-MA40011669	S-MA70004030	S-MA70004031
S-MA70004032	S-MA70050412	S-MA70068322	S-MA70068323

Principal Sparling School – 1150 Sherburn ST			
S-MA20010186	S-MA20010189	S-MA20010190	S-MA20010361
S-MA20011597	S-MA20017736	S-MA20017750	S-MA20017755
S-MA20017762	S-MA20017763	S-MA20017764	S-MA20017766
S-MA20017770	S-MA20017786		

River Elm School – 500 Riverton AV			
S-MA40007119	S-MA40011114	S-MA40011134	S-MA40011142
S-MA40011143	S-MA40011163	S-MA40011172	S-MA70100225

Samuel Burland School – 192 Burland AV			
S-MA50000111	S-MA50000112	S-MA50000113	S-MA50000120
S-MA50000121	S-MA50000122	S-MA50000726	S-MA50000727
S-MA50000728	S-MA50000729	S-MA50000730	S-MA50000747
S-MA50000748	S-MA50000749	S-MA50000750	S-MA50000785
S-MA50000786	S-MA50000788	S-MA50000789	S-MA50000799
S-MA50000800	S-MA50008156	S-MA50008162	

Sargent Park School – 2 Sargent Park PL			
S-MA20009625	S-MA20009626	S-MA20009645	S-MA20009646
S-MA20009658	S-MA20009659	S-MA20009660	S-MA20010038
S-MA20010039	S-MA20010119		

Springs Christian Academy – 261 Youville ST			
S-MA50002610	S-MA50002620	S-MA50002622	S-MA50002623
S-MA50002624	S-MA50002643	S-MA50002644	S-MA50002645
S-MA50002646	S-MA50002647	S-MA50002669	

St. Gerard School - 40 Foster ST			
S-MA40010694	S-MA40010699	S-MA40010711	S-MA40011064
S-MA40011065	S-MA40011068	S-MA40011097	S-MA40011113
S-MA40011145	S-MA40011149	S-MA40011151	S-MA70068300
S-MA70068301			

Sturgeon Heights Collegiate – 2665 Ness AV			
S-MA20006424	S-MA20006431	S-MA20006434	S-MA20006438
S-MA20006443	S-MA20006447	S-MA20006466	S-MA20006469
S-MA20006474	S-MA20006506	S-MA20006511	S-MA20006512
S-MA20006518	S-MA20006534		

Weston School – 1440 Logan AV			
S-MA20012028	S-MA20012036		

Wolseley School – 511 Clifton ST			
S-MA20011524	S-MA20011528		

E15.2 Assets identified above shall be cleaned and inspected during July and August only.

E16. SEWERS LOCAL TO LIFT STATIONS

E16.1 Sewers upstream of Lift Stations may have different degrees of access, exposure limits and inspection success, due to a range of restricted platform access, flows retained within the network based incoming flow and forward pumped flows. No hydraulic analysis has been undertaken however the control or timing of inspection will likely be during nighttime, during low flow environments to maximise visible imagery of the pipe. Assets upstream of Lift Stations may require coordination with Wastewater Services to enable inspection.

E17. FLUSH TANK MANHOLES

E17.1 Flush tank chambers exist where chamber access is restricted due to its configuration, weirs and apparatus. Inspections downstream of the chambers have limited access and may be configured with 90° bends that may only allow push camera technologies to facilitate a complete

inspection. Limited, to no access from the downstream location may available due to the possibility of tee configurations, thus presenting a challenging inspection and as such are itemised separately.

E17.2 Flush tank manhole inspections will be measured on a unit basis and paid for at the Contract Unit Price for “Flush Tank Manhole Inspections”. The amount to be paid will be the total number of Flush Tank Manholes inspected in this Contract, accepted and measured by the Contract Administrator.

E17.3 If identified and approved for inspection, flush tank leads inspections will be measured on a unit basis and paid for at the Contract Unit Price for “Flush Tank Lead Inspections”. The amount to be paid will be the total metres of Flush Tank Leads inspected in this Contract, accepted and measured by the Contract Administrator.

E18. MANHOLES WITH LIMITED ACCESS

E18.1 Manholes are defined as per E8.1.

E18.2 Manholes with limited access are those that have different degrees of access issues, ranging from no vehicular access to full vehicular access. In addition, some manholes are located on private property and require coordination with the individual landowners to facilitate establishing access and, in some cases, may be subject to certain regulatory requirements while working on the owner’s property (e.g. work within a railway right-of-way).

E18.2.1 While the City of Winnipeg has right of entry to all locations along the Sewer Network, the Contractor shall comply with all regulatory requirements associated with work required to be carried out on all property not owned by the City of Winnipeg and all reasonable requests and requirements of private landowners.

E18.2.2 All coordination to establish access, for the performance of all Work, and for any restoration required post-inspection to re-establish conditions to a condition equal to or better than their pre-inspection condition shall be provided by the Contractor.

E18.3 Manholes labelled as having Limited Access include but not limited to the following:

Manhole ID	Land Parcel Type	Owner
S-MH20004884	HOTEL	PRIVATE
S-MH20004905	APARTMENTS	PRIVATE
S-MH20004906	APARTMENTS	PRIVATE
S-MH20004913	APARTMENTS	PRIVATE
S-MH20005202	COMPLETE AUTO DEALER	PRIVATE
S-MH20005650	NGHBRHD SHOP CENTRE	PRIVATE
S-MH20005726	MILITARY BASE	FEDERAL
S-MH20005992	APARTMENTS	PRIVATE
S-MH20005993	CONDO-COMPLEX	PRIVATE
S-MH20005995	APARTMENTS	PRIVATE
S-MH20006007	NGHBRHD SHOP CENTRE	PRIVATE
S-MH20006008	APARTMENTS	CITY
S-MH20006045	APARTMENTS	CITY
S-MH20006066	DETACHD SNGL DWELLNG	PRIVATE
S-MH20006207	VACANT INDUSTRIAL	PRIVATE
S-MH20006320	INDSTR L LIGHT MANUFC	PRIVATE
S-MH20006325	MILITARY BASE	FEDERAL
S-MH40009401	WAREHOUSE	PRIVATE
S-MH40009641	VACANT INDUSTRIAL	CITY
S-MH40009653	WAREHOUSE	PRIVATE
S-MH40009690	STATUTORY ASSESSMENT	RAILWAY

Manhole ID	Land Parcel Type	Owner
S-MH40009742	WAREHOUSE	PRIVATE
S-MH40009750	BANQUET/MEETING HALL	PRIVATE
S-MH40009764	COMPLETE AUTO DEALER	PRIVATE
S-MH40009952	STATUTORY ASSESSMENT	RAILWAY
S-MH40009981	VACANT PARK	CITY
S-MH40009983	VACANT PARK	CITY
S-MH40010085	VACANT PARK	CITY
S-MH50002656	PARK WITH BUILDING	CITY
S-MH50007097	HOSPITAL	PRIVATE
S-MH50007098	HOSPITAL	PRIVATE
S-MH50007103	HOSPITAL	PRIVATE
S-MH50007228	VACANT INDUSTRIAL	PRIVATE
S-MH50007229	INDSTRL LIGHT MANUFC	PRIVATE
S-MH50010920	VACANT INDUSTRIAL	CITY
S-MH50010976	VACANT INDUSTRIAL	CITY
S-MH50010985	VACANT INDUSTRIAL	CITY
S-MH50011365	VACANT INDUSTRIAL	PRIVATE
S-MH50014672	WAREHOUSE	PRIVATE
S-MH50014675	WAREHOUSE	PRIVATE
S-MH50014676	WAREHOUSE	PRIVATE
S-MH50014677	WAREHOUSE	PRIVATE
S-MH50014678	WAREHOUSE	PRIVATE
S-MH50014684	INDSTRL LIGHT MANUFC	PRIVATE
S-MH70001486	HOSPITAL	PRIVATE
S-MH70001488	HOSPITAL	PRIVATE
S-MH70001677	CONDO-COMPLEX	PRIVATE
S-MH70001679	CONDO-COMPLEX	PRIVATE
S-MH70002253	WAREHOUSE	PRIVATE
S-MH70004527	CHURCH	PRIVATE
S-MH70006397	VACANT PARK	CITY
S-MH70007199	PUMP/SEWAGE/LIFTSTNS	PRIVATE
S-MH70007200	PUMP/SEWAGE/LIFTSTNS	PRIVATE
S-MH70007232	DETACHD SNGL DWELLNG	PRIVATE
S-MH70008777	PUMP/SEWAGE/LIFTSTNS	CITY
S-MH70008780	PUMP/SEWAGE/LIFTSTNS	CITY
S-MH70008794	PUMP/SEWAGE/LIFTSTNS	CITY
S-MH70008899	HOSPITAL	PRIVATE
S-MH70008900	HOSPITAL	PRIVATE
S-MH70008902	HOSPITAL	PRIVATE
S-MH70008903	HOSPITAL	PRIVATE
S-MH70016394	HOSPITAL	PRIVATE
S-MH70016395	HOSPITAL	PRIVATE
S-MH70029006	HOSPITAL	PRIVATE
S-MH70029007	HOSPITAL	PRIVATE
S-MH70029008	HOSPITAL	PRIVATE
S-MH70047597	VACANT PARK	CITY
S-MH70051194	COMMUNITY CENTRE	CITY
S-MH70056295	COMMUNITY CENTRE	CITY
S-MH70061126	VACANT INDUSTRIAL	CITY

Manhole ID	Land Parcel Type	Owner
S-MH70066075	STORAGE COMPOUND	PRIVATE
S-MH70075672	DETACHD SNGL DWELLNG	PRIVATE

E19. INSPECTIONS - GENERAL

- E19.1.1 Incomplete inspections for sewer and manhole inspections shall be communicated via the SharePoint Site under the “Incomplete Inspections” page, indicating the date and time of the attempt, reasoning, efforts and actions set out by Section 3.19. This will be reviewed with the Contract Administrator on a weekly basis for City, Contract Administrator and/or Contractor action to remedy the incompleteness for the goal of completing a full inspection.
- E19.1.2 An “empty header” or “0-m MSA” inspection shall be completed for sewer segment that cannot be inspected for reasons such as high flow, depths or velocities, inaccessibility to the sewer due to inaccessible or unlocated access structures, heavy debris, and at the Contract Administrator’s direction, etc. The inspection form header and detail sections shall comply with NASSCO PACP guidelines populating all required header fields. The contractor will abandon the survey at a distance of 0-m inspected and provide a general comment that describes the reason that the inspection cannot be conducted in the Additional Information field. An “empty header” inspection shall also be created for reversal inspections that cannot be completed noting reasons for non-completion. The Contractor shall record at least one photo documenting conditions preventing the inspection of the pipe segment. Empty header records shall be included in the PACP database as submitted by the contractor with adjoining segments. Comments to be included within the header Field 59 to provide further information regarding the incomplete inspection attempt.
- E19.1.3 Further to Section 3.19.2, incomplete Surveys that are due to GIS error reporting shall also be communicated via the SharePoint Site under the “GIS Error - Merged Assets” and “GIS Error – All Others” indicating which host sewer was used for the inspection, detailing all other assets that are merged into the host inspection.
- E19.1.4 Further to Section 3.19.2 and E7.2, manholes identified being in a surcharged environment (standing water) or in imminent failure shall be communicated via the SharePoint Site under the “Manholes of Concern” page, indicating the issues observed in the inspection. Incomplete manhole inspections will not be communicated within the “Manholes of Concern” page.
- E19.1.5 Further to Section 3.22.1, clear water infiltration observations shall also be communicated via the SharePoint Site under the “Water Infiltration” page, providing asset number, location, date and time of the observation, description with attached screen captures to help facilitate Section 3.19.

E20. EXISTING CONDITIONS

- E20.1 Re-Inspection
- Inspections for 72,112m of combined sewer reinspection for sewers and associated manholes identified in Despins, Marion, Mission, Mission Separate, Roland and Woodhaven Sewer Districts, make up the full inventory for Critical Stage 1 and 2.
 - The sewers are located within City of Winnipeg right-of-ways, though the possibility some may be located on unmade and private property exists.
 - Cleaning of 67% of Re-Inspection assets shall take place.
 - Most assets were previously inspected between 10 and 20 years ago.
- E20.2 Land Drainage Sewers (LDS)
- Inspection of 20,422m of previously uninspected LDS sewers and associated manholes located exclusively in the Ainslie Sewer District.
 - Cleaning of 72% of LDS sewers shall take place.

- (c) Hydraulic modelling of these sewers has not taken place, but there is no anticipated river water surcharge during Normal Summer Water Levels.
- (d) The sewers are located within City of Winnipeg right-of-ways, though the possibility some may be located on unmade and private property exists.
- (e) The LDS exhibit markedly different flow patterns relating directly with weather conditions and attenuated flow levels from local ditches or watercourses that will present potential water level and flow issues, but it is expected that in-line inspections are feasible under dry weather flow conditions but are under the influence of river levels and are not likely gated. The Contractor shall carry out CCTV inspections at times that facilitate obtaining the maximum visible image above the flow surface.
- (f) The LDS system services road and ditches, conveying rainfall and snow melt runoff and, as with all other pipe conveyance flow types, is subjected to infiltration and exfiltration. Operational issues will see debris runoff from the highway and other environments that will lead to inconsistent debris build up having obstructions or blockages of foreign objects that could be hard to clean or traverse. Cleaning shall however take place for 72% of the LDS inventory and for the remaining 28% for sewers 900mm diameter and larger, will not be cleaned and shall require traversing over existing debris levels.

E20.3 Wastewater Sewers (WWS)

- (a) Inspection of 36,438m of previously uninspected WWS and associated manholes located in the Burland Park North, Burland Park South, Compark, Highbury Park and Normand Park Sewer Districts.
- (b) Cleaning of 99% of WWS shall take place.
- (c) The sewers are located within City of Winnipeg right-of-ways, shopping mall parking lots, and other busy and private areas.

E20.4 Storm Relief Sewers (SRS)

- (a) Inspection of 22,491m of previously uninspected storm relief sewers (SRS) and associated manholes in the Aubrey, Clifton, Despina, Marion and Metcalfe Sewer Districts ranging from 250 mm to 2890 mm in diameter.
- (b) Cleaning of 42% of SRS shall take place.
- (c) The sewers are located within City of Winnipeg right-of-ways, though the possibility some may be located on unmade and private property exists.

E21. TRENCHLESS POINT REPAIRS

- E21.1 The Contractor shall provide all plant and materials to perform Trenchless Point Repairs (TPR) on gravity sewers 200mm – 600mm in diameter where directed by the Contract Administrator.
- E21.2 The Contractor or Subcontractor(s) must possess the appropriate licences and approvals to perform repair work on gravity sewers within the City of Winnipeg.
- E21.3 Installation of the TPR liner shall conform to manufacturer's specifications and ASTM F1216.
- E21.4 Minimum physical properties of the TPR liner shall be as follows:
 - (a) Flexural Modulus – 1,200,000psi (minimum) as per ASTM D 790.
 - (b) Flexural Strength – 30,000psi (minimum) as per ASTM D 790.
- E21.5 The Contractor shall provide a post repair inspection video of the entire asset as per CW2140, CW2145 and this specification.
- E21.6 Payment for Trenchless Point Repairs will be measured on a unit basis and paid for at the Contract Unit Price for "Trenchless Point Repairs" for the diameter of TPR successfully installed.

E21.7 Payment for post repair video will be made at the unit price for “Post Repair Sewer Cleaning” and “Post Repair Sewer Inspection” for the successful meters of sewer cleaned and inspected.

E22. TRAFFIC CONTROL

E22.1 In accordance with the Manual of Temporary Traffic Control on City Streets (MTTC), the Contract Administrator shall make arrangements with the Traffic Services Branch of the City of Winnipeg to place, maintain, and remove all regulatory signs and traffic control devices authorized and/or required by the Traffic Management Branch in the following situations:

- (a) Parking restrictions,
- (b) Stopping restrictions,
- (c) Turn restrictions,
- (d) Diamond lane removal,
- (e) Full or directional closures on a Regional Street,
- (f) Traffic routed across a median,
- (g) Full or directional closure of a non-regional street where there is a requirement for regulatory signs (turn restrictions, bus stop relocations, etc.) to implement the closure.
- (h) Approved Designated Construction Zones with a temporary posted speed limit reduction. Traffic Services will be responsible for placing all of the advance signs and 'Construction Ends' (TC-4) signs. The Contractor is still responsible for all other temporary traffic control including but not limited to barricades, barrels and tall cones.

E22.2 Further to (c), the Contractor shall make arrangement with the Traffic Services Branch of the City of Winnipeg to supply regulatory signs as required.

E22.3 Upon request from the Contract Administrator, the Contractor shall provide records demonstrating that the Site has been maintained.

E22.4 Further to E22.1(c) and E22.1(d) the Contractor shall make arrangements with the Traffic Services Branch of the City of Winnipeg to reinstall the permanent regulatory signs after the Contract Work is complete. At this time the Contractor shall make arrangements to drop off the stockpiled materials to Traffic Services at 495 Archibald Street.

E22.5 Any changes to the approved traffic management plan must be submitted to the Contract Administrator a minimum of (five) 5 Working Days prior to the required change for approval.

E22.6 If the Contract Administrator determines that the Contractor is not performing Traffic Control in accordance with this specification, Traffic Services Branch may be engaged to perform the Traffic Control. In this event the Contractor shall bear the costs associated charged to the project by the Traffic Services Branch of the City of Winnipeg in connection with the required Works undertaken by the Contractor.

E22.7 Do not park company or private vehicles inside the signed work zone in a manner that will block sightlines for vehicles and pedestrians approaching and crossing intersections.

E22.8 If, in the opinion of the Contract Administrator, the placement of the Contractor's equipment creates an inordinate effect on pedestrian and (or) vehicular traffic, the Contractor shall relocate equipment until favourable traffic conditions return.

E22.9 Time taken with establishing lane closures for all non-regional streets, but not including any permits or fees associated with acquiring access, shall be paid for under the Provisional Item O.b.i., where the Contractor shall provide an hourly rate, applied monthly having an upset limit of \$75,000.

E23. NOTICES TO RESIDENTS

- E23.1 Further to CW 2140 Section 3.5 and CW 2145, the Contractor shall deliver notices provided by the Contract Administrator to residents on the affected sewer lines by 16:00 hours 2 days prior to the use of flushing equipment for either sewer cleaning or sewer inspection.
- E23.2 The notices will be in effect for a 3-day period which the Contractor will indicate with dates stamped on the envelope. The Contractor shall make every effort to complete the affected sewer lines within the notification window.
- E23.3 The Contractor shall update the project SharePoint site, under the “Notices to Residents” page, for each day on which letters to residents were delivered. Access and initial training to the project SharePoint site will be provided by AECOM. SharePoint will be used for project information sharing purposes as specified in E25.
- E23.4 All costs associated with delivering notices shall be included in the price bid for “Sewer Cleaning” and “Sewer Inspection” and no separate measurement or payment will be made.

E24. DAMAGE TO CITY AND PRIVATE PROPERTY

- E24.1 All damage to City and private property caused by cleaning or inspection operations is the responsibility of the Contractor. The Contractor shall repair all damaged property to the satisfaction of the Contract Administrator. All costs associated with these repairs shall be at the Contractors own expense.
- E24.2 Notify the Contract Administrator immediately when damage to property occurs.
- E24.3 The Contractor shall provide written reports to the Contract Administrator for each property attended for investigation of damage. Reports shall include photographs of all damage, dates and times, verbal or written agreements with property owner and all actions taken or proposed to rectify the damage. Reports shall be submitted to the Contract Administrator within 24 hours of attending the property.
- E24.4 Sewers may be located in easements through private property or City owned parklands and right-of-ways where no paved access may exist. It will be the Contractors responsibility to identify these sewers and arrange for access and to restore any surface damage to private and City owned property to the satisfaction of the Contract Administrator.
- E24.5 Sewer backup or “blow-back” on private property resulting from cleaning or inspection activities is not acceptable and shall be avoided at all costs. It is expected that where this possibility exists the Contractor shall take appropriate measures such as making modifications to cleaning equipment and/or taking additional time to clean such sewers.
- E24.5.1 Clean-up of affected residences shall be done by cleaning professionals. Under no circumstances are cleaning equipment operators to enter residences unless they are neat and presentable, and the Contract Administrator has received a Criminal Record Search for that individual.
- E24.5.2 Where actual sewage or “grey water” has flooded private property, the Contractor shall immediately clean and disinfect all affected areas as well as flush all weeping tile. The Contractor shall immediately hire an independent IICRC certified water damage or flood restoration contractor to assess any damage to contaminated building materials such as drywall, insulation, carpets, weeping tile or sub-floors, and immediately make any required repairs.
- E24.5.3 If a residence is uninhabitable as a result of a sewer back-up the Contractor shall pay for reasonable hotel accommodations and meals for all affected residents.
- E24.6 The Contractor shall provide the Contract Administrator with a local 24-hour contact number to arrange for immediate clean-up and repair of private property.

E25. PROJECT INFORMATION SHARING

- E25.1 Project information sharing will be done using Microsoft SharePoint 2013, referred to herein as SharePoint. SharePoint is a web-based collaboration tool that allows designated users to view, upload, and edit information depending on permissions granted.
- E25.2 SharePoint will be used by all stakeholders (WWD, AECOM, and the Contractor) to effectively centralize and manage project information such as, but not limited to; Uploading and Video Storage, Daily Reports, Weekly Reports, Progress Payments, Meeting Minutes, Schedule, Construction Progress, Alerts, Site Trouble Spots, Letters to Residents, Complaints Reporting, Urgent Repairs, Hydrant Locations, Notices to Residents, Incomplete Inspection Records, Water Infiltration Notification etc.
- E25.3 Access and permissions will be granted by AECOM as approved by WWD. Initial training and support on the use of SharePoint will be provided by AECOM.

E26. PROJECT DELIVERABLES

- E26.1 CCTV Sewer and Panoramio Manhole Inspections shall include the following information:
- E26.2 The Contractor shall submit formal NASSCO PACP and MACP compliant Sewer and Manhole Inspection Reports as specified in E9.5(d) and E10.4 respectively, in digital (PDF) format, that summarizes all inspection activities and includes all inspection data in their raw format, along with any software viewing packages required, free of charge to the City and Contract Administrator, to view or utilize the video and raw data as per E11 and E12.

PART F - SECURITY CLEARANCE

F1. SECURITY CLEARANCE

- F1.1 Each individual proposed to perform the following portions of the Work:
- (a) any Work on private property;
 - (b) communicating with residents and homeowners in person or by telephone;
- F1.1.1 Each Individual shall be required to obtain a Police Information Check from the police service having jurisdiction at their place of residence. Or
- (a) Sterling BackCheck – for existing account holders, log into your account to send individual invitations to employees requiring security clearance. For those that do not have an account, click on the following link to open an account:
<https://forms.sterlingbackcheck.com/partners/platform2-en.php?&partner=winnipegcity>; or
 - (b) Commissionaires (Manitoba Division), forms to be completed can be found on the website at: <https://www.commissionaires.ca/en/manitoba/home>; or
 - (c) FASTCHECK Criminal Record & Fingerprint Specialists, forms to be completed can be found on the website at: <https://myfastcheck.com>
- F1.2 The following is a link to information for obtaining the Police Information Check from the City of Winnipeg Police Service. <http://winnipeg.ca/police/pr/PIC.stm>
- F1.2.1 The Police Information Check shall include a Vulnerable Sector Screening. This can be obtained by following the link below <http://winnipeg.ca/police/pr/PIC.stm>
- (a) Individuals will need to state in the form, that they may be working in City of Winnipeg pools, libraries and community centres;
- F1.2.2 The original Police Information Check (Form P-612) will be provided by the Winnipeg Police Service to the individual applicant. The original has a validation sticker from the Winnipeg Police Service in the top right hand corner. The applicant shall:
- (a) Provide the original Police Information Check (Form P-612) to the Contract Administrator.
- F1.3 Prior to the award of Contact, and during the term of the Contract if additional or replacement individuals are proposed to perform Work, the Bidder/Contractor shall supply the Contract Administrator with a Police Information Check obtained not earlier than one (1) year prior to the Submission Deadline, or a certified true copy thereof, for each individual proposed to perform such Work.
- F1.4 Any individual for whom a Police Information Check is not provided, or for whom a Police Information Check indicates any convictions or pending charges related to property offences or crimes against another person will not be permitted to perform any Work specified in F1.1.
- F1.5 Any Police Information Check obtained thereby will be deemed valid for the duration of the Contract subject to a repeated records search as hereinafter specified.
- F1.6 Notwithstanding the foregoing, at any time during the term of the Contract, the City may, at their sole discretion and acting reasonably, require an updated Police Information Check. Any individual who fails to provide a satisfactory Police Information Check as a result of a repeated Police Information Check will not be permitted to continue to perform any Work specified in F1.1.