

THE CITY OF WINNIPEG

BID OPPORTUNITY

BID OPPORTUNITY NO. 558-2016
2016 OUTFALL INSPECTIONS

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 2016 OUTFALL INSPECTIONS

B2. SUBMISSION DEADLINE

- B2.1 The Submission Deadline is 4:00 p.m. Winnipeg time, June 21, 2016.
- B2.2 Bids determined by the Manager of Materials to have been received later than the Submission Deadline will not be accepted and will be returned upon request.
- B2.3 The Contract Administrator or the Manager of Materials may extend the Submission Deadline by issuing an addendum at any time prior to the time and date specified in B2.1.

B3. SITE INVESTIGATION

- B3.1 Further to C3.1, the 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.

B4. ENQUIRIES

- B4.1 All enquiries shall be directed to the Contract Administrator identified in D4.1.
- B4.2 If the Bidder finds errors, discrepancies or omissions in the Bid Opportunity, or is unsure of the meaning or intent of any provision therein, the Bidder shall promptly notify the Contract Administrator of the error, discrepancy or omission at least five (5) Business Days prior to the Submission Deadline.
- B4.3 If the Bidder is unsure of the meaning or intent of any provision therein, the Bidder should request clarification as to the meaning or intent prior to the Submission Deadline.
- B4.4 Responses to enquiries which, in the sole judgment of the Contract Administrator, require a correction to or a clarification of the Bid Opportunity will be provided by the Contract Administrator to all Bidders by issuing an addendum.
- B4.5 Responses to enquiries which, in the sole judgment of the Contract Administrator, do not require a correction to or a clarification of the Bid Opportunity will be provided by the Contract Administrator only to the Bidder who made the enquiry.
- B4.6 The Bidder shall not be entitled to rely on any response or interpretation received pursuant to B4 unless that response or interpretation is provided by the Contract Administrator in writing.

B5. CONFIDENTIALITY

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

B5.2 The Bidder shall not make any statement of fact or opinion regarding any aspect of the Bid Opportunity 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 Bid Opportunity, 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.
- B6.2.1 Addenda will be available on the Bid Opportunities page at The City of Winnipeg, Corporate Finance, Materials Management Division website at http://www.winnipeg.ca/matmgt/bidopp.asp
- B6.2.2 The Bidder is responsible for ensuring that he/she has received all addenda and is advised to check the Materials Management Division website for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.
- B6.3 The Bidder shall acknowledge receipt of each addendum in Paragraph 8 of Form A: Bid. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.

B7. SUBSTITUTES

- B7.1 The Work is based on the Plant, Materials and methods specified in the Bid Opportunity.
- 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 his/her sole discretion grant approval for the use of a substitute as an "approved equal" or as an "approved alternative", or may refuse to grant approval of the substitute.
- B7.6 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, to the Bidder who requested approval of the substitute.
- B7.6.1 The Contract Administrator will issue an Addendum, disclosing the approved materials, equipment, methods and products to all potential Bidders. The Bidder requesting and obtaining the approval of a substitute shall be responsible for disseminating information regarding the approval to any person or persons he/she wishes to inform.
- B7.7 If the Contract Administrator approves a substitute as an "approved equal", any Bidder may use the approved equal in place of the specified item.
- B7.8 If the Contract Administrator approves a substitute as an "approved alternative", any Bidder bidding that approved alternative may base his/her Total Bid Price upon the specified item but may also indicate an alternative price based upon the approved alternative. Such alternatives will be evaluated in accordance with B16.
- B7.9 No later claim by the Contractor for an addition to the Total Bid Price because of any other changes in the Work necessitated by the use of an approved equal or an approved alternative will be considered.

B8. BID SUBMISSION

- B8.1 The Bid shall consist of the following components:
 - (a) Form A: Bid;
 - (b) Form B: Prices;
- B8.2 Further to B8.1, the Bidder should include the written correspondence from the Contract Administrator approving a substitute in accordance with B7.
- B8.3 All components of the Bid shall be fully completed or provided, and submitted by the Bidder no later than the Submission Deadline, with all required entries made clearly and completely in ink, to constitute a responsive Bid.
- B8.4 Bidders are advised not to include any information/literature except as requested in accordance with B8.1.
- B8.5 Bidders are advised that inclusion of terms and conditions inconsistent with the Bid Opportunity document, including the General Conditions, will be evaluated in accordance with B16.1(a)
- B8.6 The Bid may be submitted by mail, courier or personal delivery, or by facsimile transmission.
- B8.7 If the Bid is submitted by mail, courier or personal delivery, it shall be enclosed and sealed in an envelope clearly marked with the Bid Opportunity number and the Bidder's name and address, and shall be submitted to:

The City of Winnipeg Corporate Finance Department Materials Management Division 185 King Street, Main Floor Winnipeg MB R3B 1J1

B8.7.1 Samples or other components of the Bid which cannot reasonably be enclosed in the envelope may be packaged separately, but shall be clearly marked with the Bid Opportunity number, the Bidder's name and address, and an indication that the contents are part of the Bidder's Bid Submission.

- B8.8 If the Bid is submitted by facsimile transmission, it shall be submitted to 204- 949-1178.
- B8.8.1 The Bidder is advised that the City cannot take responsibility for the availability of the facsimile machine at any time.
- B8.8.2 Bids submitted by internet electronic mail (e-mail) will not be accepted.

B9. BID

- B9.1 The Bidder shall complete Form A: Bid, making all required entries.
- B9.2 Paragraph 2 of Form A: Bid shall be completed in accordance with the following requirements:
 - (a) if the Bidder is a sole proprietor carrying on business in his/her own name, his/her name shall be inserted:
 - (b) if the Bidder is a partnership, the full name of the partnership shall be inserted;
 - (c) if the Bidder is a corporation, the full name of the corporation shall be inserted;
 - (d) if the Bidder is carrying on business under a name other than his/her own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.
- B9.2.1 If a Bid is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B9.2.
- B9.3 In Paragraph 3 of Form A: Bid, the Bidder shall identify a contact person who is authorized to represent the Bidder for purposes of the Bid.
- B9.4 Paragraph 10 of Form A: Bid shall be signed in accordance with the following requirements:
 - (a) if the Bidder is a sole proprietor carrying on business in his/her own name, it shall be signed by the Bidder;
 - (b) if the Bidder is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;
 - (c) if the Bidder is a corporation, it shall be signed by its duly authorized officer or officers;
 - (d) if the Bidder is carrying on business under a name other than his/her own, it shall be signed by the registered owner of the business name, or by the registered owner's authorized officials if the owner is a partnership or a corporation.
- B9.4.1 The name and official capacity of all individuals signing Form A: Bid should be printed below such signatures.
- B9.4.2 All signatures shall be original.
- 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 C11.1.3, prices on Form B: Prices shall not include the Goods and Services Tax (GST) or Manitoba Retail Sales Tax (MRST, also known as PST), which shall be extra where applicable.

- B10.2 The quantities listed on Form B: Prices are to be considered approximate only. The City will use said quantities for the purpose of comparing Bids.
- B10.3 The quantities for which payment will be made to the Contractor are to be determined by the Work actually performed and completed by the Contractor, to be measured as specified in the applicable Specifications.
- B10.4 Payments to Non-Resident Contractors are subject to Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).

B11. DISCLOSURE

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

B12. QUALIFICATION

- B12.1 The Bidder shall:
 - (a) undertake to be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba, or if the Bidder does not carry on business in Manitoba, in the jurisdiction where the Bidder does carry on business; and
 - (b) be financially capable of carrying out the terms of the Contract; and
 - (c) have all the necessary experience, capital, organization, and equipment to perform the Work in strict accordance with the terms and provisions of the Contract.
- B12.2 The Bidder and any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:
 - (a) be responsible and not be suspended, debarred or in default of any obligations to the City. A list of suspended or debarred individuals and companies is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at http://www.winnipeg.ca/matmgt/debar.stm
- B12.3 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) upon request of the Contract Administrator , obtain Security Clearances in accordance with PART F Security Clearance:
 - (e) have successfully completed over 5000 meters of previous CCTV inspection on sewers 1350 mm and larger for condition assessment purposes (CCTV of new infrastructure for acceptance purposes shall not be deemed as representative experience); and

- (f) have completed at least three (3) successful projects with the use of SONAR technology equivalent to the level of complexity of the equipment specified for use on this project; and
- (g) have completed at least three (3) successful projects with the use of 3D LASER technology equivalent to the level of complexity of the equipment specified for use on this project.
- B12.4 Further to B12.3(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) 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
 - (b) 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
 - (c) a report or letter to that effect from an independent reviewer acceptable to the City. (A list of acceptable reviewers and the review template are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at http://www.winnipeg.ca/matmgt/.
- B12.5 The Bidder shall submit, within three (3) Business Days of a request by the Contract Administrator, proof satisfactory to the Contract Administrator of the qualifications of the Bidder and of any proposed Subcontractor.
- B12.6 The Bidder shall provide, on the request of the Contract Administrator, full access to any of the Bidder's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Bidder's equipment and facilities are adequate to perform the Work.

B13. OPENING OF BIDS AND RELEASE OF INFORMATION

- B13.1 Bid Submissions will not be opened publicly.
- B13.2 Following the Submission Deadline, the names of the Bidders and their bid prices (unevaluated, and pending review and verification of conformance with requirements) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at http://www.winnipeg.ca/matmgt/
- B13.3 After award of Contract, the name(s) of the successful Bidder(s) and the Contract amount(s) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at http://www.winnipeg.ca/matmgt/
- B13.4 The Bidder is advised that any information contained in any Bid may be released if required by City policy or procedures, The Freedom of Information and Protection of Privacy Act (Manitoba), or by other authorities having jurisdiction.

B14. IRREVOCABLE BID

B14.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 9 of Form A: Bid.

B14.2 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 for the time period specified in Paragraph 9 of Form A: Bid.

B15. WITHDRAWAL OF BIDS

- B15.1 A Bidder may withdraw his/her Bid without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.
- B15.1.1 Notwithstanding C22.5, the time and date of receipt of any notice withdrawing a Bid shall be the time and date of receipt as determined by the Manager of Materials.
- B15.1.2 The City will assume that any one of the contact persons named in Paragraph 3 of Form A: Bid or the Bidder's authorized representatives named in Paragraph 10 of Form A: Bid, and only such person, has authority to give notice of withdrawal.
- B15.1.3 If a Bidder gives notice of withdrawal prior to the Submission Deadline, the Manager of Materials will:
 - (a) retain the Bid until after the Submission Deadline has elapsed;
 - (b) open the Bid to identify the contact person named in Paragraph 3 of Form A: Bid and the Bidder's authorized representatives named in Paragraph 10 of Form A: Bid; and
 - (c) if the notice has been given by any one of the persons specified in B15.1.3(b), declare the Bid withdrawn.
- B15.2 A Bidder who withdraws his/her Bid after the Submission Deadline but before his/her Bid has been released or has lapsed as provided for in B14.2 shall be liable for such damages as are imposed upon the Bidder by law and subject to such sanctions as the Chief Administrative Officer considers appropriate in the circumstances. The City, in such event, shall be entitled to all rights and remedies available to it at law.

B16. EVALUATION OF BIDS

- B16.1 Award of the Contract shall be based on the following bid evaluation criteria:
 - (a) compliance by the Bidder with the requirements of the Bid Opportunity, or acceptable deviation therefrom (pass/fail):
 - (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B12 (pass/fail);
 - (c) Total Bid Price;
 - (d) economic analysis of any approved alternative pursuant to B7.
- B16.2 Further to B16.1(a), the Award Authority may reject a Bid as being non-responsive if the Bid Submission 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.
- B16.3 Further to B16.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in his/her Bid or in other information required to be submitted, that he/she is responsible and qualified.
- B16.4 Further to B16.1(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 adjusted, if necessary, as follows:
 - (a) if the lowest evaluated responsive Bid submitted by a responsible and qualified Bidder is within the budgetary provision for the Work, no adjustment will be made to the Total Bid Price; or
 - (b) if the lowest evaluated responsive Bid submitted by a responsible and qualified Bidder exceeds the budgetary provision for the Work, the Total Bid Prices of all responsive Bids

submitted by responsible and qualified Bidders will be adjusted by progressively deducting prices (in the order listed below), until a Total Bid Price within the budgetary provision is achieved.

The order for deduction shall be:

- (i) A. Outfall Inspection dp) DWG 264; S-MA70021246; 900 DIAM
- (ii) A. Outfall Inspection q) DWG 32; S-MA70043042; 2550 DIAM
- (iii) A. Outfall Inspection bp) DWG 168; S-MA60012037; 1675 DIAM
- (iv) A. Outfall Inspection eh) DWG 307; S-MA20014505; 1800 DIAM
- (v) A. Outfall Inspection em) DWG 312; S-MA70016043; 1200 DIAM
- (vi) A. Outfall Inspection er) DWG 319; S-MA70021229; 1500 DIAM
- (vii) A. Outfall Inspection bv) DWG 178; S-MA70004387; 1600 DIAM
- (viii) A. Outfall Inspection aw) DWG 117; S-MA70007510; 1660 DIAM
- (ix) A. Outfall Inspection ax) DWG 118; S-MA70018393; 1660 DIAM
- (x) A. Outfall Inspection ez) DWG 330 ; S-MA00017967 ; 1800 DIAM
- (xi) B. Sewer Inspection i) DWG 330; S-MA70016460; 1750x2175 DIAM
- (xii) A. Outfall Inspection ev) DWG 325; S-MA70007427; 1980 DIAM
- (xiii) A. Outfall Inspection bu) DWG 177; S-MA70016174; 2130 DIAM
- (xiv) A. Outfall Inspection eb) DWG 296; S-MA70008731; 2550 DIAM
- (xv) A. Outfall Inspection ey) DWG 329; S-MA70007551; 3000 DIAM
- (xvi) A. Outfall Inspection bb) DWG 136; S-MA70053500; 1400 DIAM
- (xvii) A. Outfall Inspection fh) DWG 341; S-MA00000120; 1800 DIAM
- (xviii) A. Outfall Inspection I) DWG 19; S-MA40000284; 1350 DIAM
- (xix) A. Outfall Inspection bc) DWG 137; S-MA70074230; 900 DIAM
- (xx) A. Outfall Inspection aa) DWG 69; S-MA70097441; 1000 DIAM
- (xxi) A. Outfall Inspection ab) DWG 70; S-MA70003819; 1630x1120 DIAM
- (xxii) A. Outfall Inspection ac) DWG 71; S-MA50007688; 1600 DIAM
- (xxiii) A. Outfall Inspection af) DWG 74; S-MA70011100; 1200 DIAM
- (xxiv) A. Outfall Inspection ah) DWG 77; S-MA50018093; 1200 DIAM
- (xxv) A. Outfall Inspection an) DWG 85; S-MA50012073; 525 DIAM
- (xxvi) A. Outfall Inspection ap) DWG 87; S-MA70011102; 600 DIAM
- (xxvii) A. Outfall Inspection aq) DWG 90; S-MA50015374; 750 DIAM
- (xxviii) A. Outfall Inspection ba) DWG 135; S-MA50010420; 2250 DIAM
- (xxix) A. Outfall Inspection bf) DWG 146; S-MA60023328; 300 DIAM
- (xxx) A. Outfall Inspection bm) DWG 159; S-MA70007648; 1800 DIAM
- (xxxi) A. Outfall Inspection bn) DWG 162; S-MA70032551; 900 DIAM
- (xxxii) B. Sewer Inspection c) DWG 162; S-MA70069303; 900 DIAM
- (xxxiii) A. Outfall Inspection bt) DWG 175; S-MA70032731; 300 DIAM
- (xxxiv) A. Outfall Inspection cd) DWG 194; S-MA60003648; 750 DIAM
- (xxxv) B. Sewer Inspection g) DWG 194; S-MA60003875; 750 DIAM
- (xxxvi) A. Outfall Inspection cf) DWG 201; S-MA60003371; 2590 DIAM
- (xxxvii) A. Outfall Inspection cg) DWG 203; S-MA70030182; 600 DIAM
- (xxxviii) A. Outfall Inspection ci) DWG 205; S-MA70041297; 450 DIAM

- (xxxix) A. Outfall Inspection cj) DWG 206; S-MA70041572; 1950 DIAM
 - (xl) A. Outfall Inspection ck) DWG 207; S-MA60003296; 600x900 DIAM
 - (xli) A. Outfall Inspection cl) DWG 210; S-MA60001604; 600 DIAM
 - (xlii) A. Outfall Inspection cp) DWG 226; S-MA70019662; 1200x900 DIAM
 - (xliii) A. Outfall Inspection cr) DWG 228; S-MA70008562; 750 DIAM
 - (xliv) A. Outfall Inspection cs) DWG 229; S-MA20003809; 600 DIAM
 - (xlv) A. Outfall Inspection dh) DWG 253; S-MA20005373; 750 DIAM
 - (xlvi) A. Outfall Inspection di) DWG 254; S-MA70011382; 2200 DIAM
- (xlvii) A. Outfall Inspection dj) DWG 255; S-MA70053788; 1350 DIAM
- (xlviii) A. Outfall Inspection dl) DWG 260 ; S-MA20008519 ; 300 DIAM
- (xlix) A. Outfall Inspection dn) DWG 262; S-MA20008800; 750 DIAM
 - (I) B. Sewer Inspection h) DWG 262; S-MA70019337; 675 DIAM
 - (li) A. Outfall Inspection ej) DWG 309; S-MA20014087; 675 DIAM
 - (lii) A. Outfall Inspection ch) DWG 204; S-MA60003299; 450 DIAM
- (liii) A. Outfall Inspection e) DWG 10; S-MA40001432; 1350 DIAM
- (liv) A. Outfall Inspection d) DWG 9; S-MA70031499; 1200 DIAM
- (Iv) A. Outfall Inspection x) DWG 66; S-MA70007543; 450 DIAM
- (Ivi) A. Outfall Inspection y) DWG 67; S-MA70082045; 1000 DIAM
- (Ivii) A. Outfall Inspection at) DWG 105; S-MA70017688; 600 DIAM
- (Iviii) A. Outfall Inspection bd) DWG 138; S-MA70016115; 1800 DIAM
- (lix) A. Outfall Inspection bw) DWG 179; S-MA60020193; 2400 DIAM
- (lx) A. Outfall Inspection cz) DWG 239; S-MA20002435; 525 DIAM
- (lxi) A. Outfall Inspection do) DWG 263; S-MA20008967; 2340 DIAM
- (Ixii) A. Outfall Inspection fb) DWG 334; S-MA00017633; 2700 DIAM
- (Ixiii) A. Outfall Inspection av) DWG 114; S-MA70008060; 1200 DIAM
- (Ixiv) A. Outfall Inspection bi) DWG 152; S-MA70007547; 750 DIAM
- (lxv) B. Sewer Inspection a) DWG 152; S-MA70095075; 750 DIAM
- (Ixvi) A. Outfall Inspection en) DWG 313; S-MA20013203; 1400 DIAM
- (Ixvii) A. Outfall Inspection bo) DWG 163; S-MA60013422; 1200 DIAM
- (Ixviii) A. Outfall Inspection cn) DWG 214; S-MA60001546; 900 DIAM
- (lxix) A. Outfall Inspection db) DWG 242; S-MA20000072; 600 DIAM
- (lxx) A. Outfall Inspection eo) DWG 314; S-MA70014674; 1400 DIAM
- (lxxi) A. Outfall Inspection fg) DWG 340; S-MA00000073; 750 DIAM
- (lxxii) A. Outfall Inspection n) DWG 24 ; S-MA70062167 ; 2100 DIAM
- (Ixxiii) A. Outfall Inspection w) DWG 65; S-MA70015994; 800 DIAM
- (Ixxiv) A. Outfall Inspection eu) DWG 324 ; S-MA70029924 ; 1660 DIAM
- (lxxv) A. Outfall Inspection t) DWG 61; S-MA70028445; 450 DIAM
- (lxxvi) A. Outfall Inspection au) DWG 111; S-MA70087426; 1400 DIAM
- (Ixxvii) A. Outfall Inspection fd) DWG 337; S-MA00000385; 1800 DIAM
- (Ixxviii) A. Outfall Inspection dr) DWG 270; S-MA70013057; 750 DIAM
- (Ixxix) A. Outfall Inspection a) DWG 1; S-MA70106467; 1500 DIAM

- (lxxx) A. Outfall Inspection p) DWG 29; S-MA40006872; 2260 DIAM
- (lxxxi) A. Outfall Inspection r) DWG 33; S-MA40011011; 3700 DIAM
- (Ixxxii) A. Outfall Inspection by) DWG 182; S-MA70033501; 3480 DIAM
- (Ixxxiii) B. Sewer Inspection e) DWG 182; S-MA70033504; 3480 DIAM
- (Ixxxiv) A. Outfall Inspection fa) DWG 331; S-MA00017939; 2950 DIAM
- (lxxxv) A. Outfall Inspection fc) DWG 336; S-MA00017100; 2290 DIAM
- (Ixxxvi) A. Outfall Inspection o) DWG 26; S-MA40001805; 2900 DIAM
- (Ixxxvii) A. Outfall Inspection ec) DWG 297; S-MA70017585; 2890 DIAM
- (Ixxxviii) A. Outfall Inspection eg) DWG 306; S-MA70103641; 2750 DIAM
- (Ixxxix) A. Outfall Inspection dq) DWG 269; S-MA20011477; 2700 DIAM
 - (xc) A. Outfall Inspection ed) DWG 300 ; S-MA70022480 ; 2700 DIAM
 - (xci) A. Outfall Inspection ep) DWG 316; S-MA20013332; 2700 DIAM
 - (xcii) A. Outfall Inspection ew) DWG 327; S-MA00017926; 2400 DIAM
 - (xciii) A. Outfall Inspection bz) DWG 184; S-MA70024441; 2400 DIAM
 - (xciv) A. Outfall Inspection cc) DWG 191; S-MA60004165; 2400 DIAM
 - (xcv) A. Outfall Inspection ee) DWG 302; S-MA70017866; 1980 DIAM
- (xcvi) A. Outfall Inspection az) DWG 124; S-MA70000751; 1950 DIAM
- (xcvii) A. Outfall Inspection cu) DWG 232; S-MA20000065; 1950 DIAM
- (xcviii) A. Outfall Inspection ek) DWG 310; S-MA20014095; 1950 DIAM
- (xcix) A. Outfall Inspection b) DWG 2; S-MA40003056; 1825 DIAM
 - (c) A. Outfall Inspection dm) DWG 261; S-MA70019346; 1800 DIAM
 - (ci) A. Outfall Inspection bq) DWG 169; S-MA70006325; 1600 DIAM
 - (cii) A. Outfall Inspection bs) DWG 174; S-MA70005806; 1600 DIAM
 - (ciii) A. Outfall Inspection u) DWG 63; S-MA70012111; 1525 DIAM
- (civ) A. Outfall Inspection bx) DWG 180; S-MA70002491; 1400 DIAM
- (cv) A. Outfall Inspection el) DWG 311; S-MA70008123; 1400 DIAM
- (cvi) A. Outfall Inspection ad) DWG 72; S-MA50013542; 1350 DIAM
- (cvii) A. Outfall Inspection ae) DWG 73; S-MA50008850; 1350 DIAM
- (cviii) A. Outfall Inspection eq) DWG 317; S-MA70000991; 1100x1300 DIAM
- (cix) A. Outfall Inspection i) DWG 15; S-MA40000202; 1200 DIAM
- (cx) A. Outfall Inspection j) DWG 16; S-MA40000250; 1200 DIAM
- (cxi) A. Outfall Inspection m) DWG 20; S-MA40000289; 1200 DIAM
- (cxii) A. Outfall Inspection ag) DWG 76; S-MA50017691; 1200 DIAM
- (cxiii) A. Outfall Inspection ai) DWG 78; S-MA70011372; 1200 DIAM
- (cxiv) A. Outfall Inspection bh) DWG 148; S-MA70039670; 1200 DIAM
- (cxv) A. Outfall Inspection cq) DWG 227; S-MA20003873; 1200 DIAM
- (cxvi) A. Outfall Inspection dg) DWG 252; S-MA70006919; 1200 DIAM
- (cxvii) A. Outfall Inspection fe) DWG 338; S-MA70052164; 1200 DIAM
- (cxviii) A. Outfall Inspection aj) DWG 79 ; S-MA50008353 ; 1050 DIAM
- (cxix) A. Outfall Inspection ce) DWG 196; S-MA60003741; 1050 DIAM
- (cxx) A. Outfall Inspection da) DWG 241; S-MA20000076; 1050 DIAM

- (cxxi) A. Outfall Inspection dk) DWG 257; S-MA70049736; 1050 DIAM
- (cxxii) A. Outfall Inspection ea) DWG 294; S-MA20006898; 1050 DIAM
- (cxxiii) A. Outfall Inspection as) DWG 99; S-MA70022563; 1000 DIAM
- (cxxiv) A. Outfall Inspection c) DWG 8; S-MA70031497; 900 DIAM
- (cxxv) A. Outfall Inspection v) DWG 64; S-MA70007384; 900 DIAM
- (cxxvi) A. Outfall Inspection ar) DWG 98; S-MA70022226; 900 DIAM
- (cxxvii) A. Outfall Inspection bk) DWG 156; S-MA70087882; 900 DIAM
- (cxxviii) A. Outfall Inspection cb) DWG 189; S-MA70029012; 900 DIAM
- (cxxix) B. Sewer Inspection f) DWG 189; S-MA70029024; 900 DIAM
- (cxxx) A. Outfall Inspection co) DWG 225; S-MA20002806; 900 DIAM
- (cxxxi) A. Outfall Inspection dv) DWG 284; S-MA70009397; 900 DIAM
- (cxxxii) A. Outfall Inspection cx) DWG 236; S-MA20002277; 762 DIAM
- (cxxxiii) A. Outfall Inspection ak) DWG 81; S-MA50008393; 750 DIAM
- (cxxxiv) A. Outfall Inspection ao) DWG 86; S-MA70001233; 750 DIAM
- (cxxxv) A. Outfall Inspection bg) DWG 147; S-MA60022470; 750 DIAM
- (cxxxvi) A. Outfall Inspection bl) DWG 157; S-MA60016840; 750 DIAM
- (cxxxvii) A. Outfall Inspection bj) DWG 153; S-MA70007540; 750 DIAM
- (cxxxviii) B. Sewer Inspection b) DWG 153; S-MA70095041; 600 DIAM
- (cxxxix) A. Outfall Inspection z) DWG 68; S-MA70053508; 600 DIAM
 - (cxl) A. Outfall Inspection am) DWG 84; S-MA50014432; 600 DIAM
 - (cxli) A. Outfall Inspection ay) DWG 122; S-MA70000304; 600 DIAM
 - (cxlii) A. Outfall Inspection cv) DWG 233; S-MA20000064; 600 DIAM
 - (cxliii) A. Outfall Inspection cw) DWG 234; S-MA20002395; 600 DIAM
 - (cxliv) A. Outfall Inspection br) DWG 172; S-MA60021687; 600 DIAM
 - (cxlv) B. Sewer Inspection d) DWG 172; S-MA70022370; 750 DIAM
 - (cxlvi) A. Outfall Inspection ef) DWG 303; S-MA20013630; 750 DIAM
 - (cxlvii) A. Outfall Inspection ei) DWG 308; S-MA70068974; 750 DIAM
- (cxlviii) A. Outfall Inspection dc) DWG 243; S-MA20000247; 600 DIAM
- (cxlix) A. Outfall Inspection dd) DWG 245; S-MA20000107; 600 DIAM
 - (cl) A. Outfall Inspection de) DWG 246; S-MA20003870; 600 DIAM
 - (cli) A. Outfall Inspection f) DWG 11; S-MA70008652; 525 DIAM
 - (clii) A. Outfall Inspection k) DWG 17; S-MA40000244; 525 DIAM
- (cliii) A. Outfall Inspection al) DWG 82; S-MA50018567; 525 DIAM
- (cliv) A. Outfall Inspection be) DWG 141; S-MA70028480; 450 DIAM
- (clv) A. Outfall Inspection ca) DWG 186; S-MA60006747; 450 DIAM
- (clvi) A. Outfall Inspection ct) DWG 231; S-MA70114933; 450 DIAM
- (clvii) A. Outfall Inspection df) DWG 249; S-MA70078949; 450 DIAM
- (clviii) A. Outfall Inspection ff) DWG 339; S-MA70070656; 450 DIAM
- (clix) A. Outfall Inspection h) DWG 13; S-MA40000143; 400 DIAM
- (clx) A. Outfall Inspection g) DWG 12; S-MA40000355; 375 DIAM
- (clxi) A. Outfall Inspection cy) DWG 237; S-MA20002291; 361 DIAM

- (clxii) A. Outfall Inspection dz) DWG 293; S-MA20007260; 375 DIAM
- (clxiii) A. Outfall Inspection s) DWG 53; S-MA50010681; 300 DIAM
- (clxiv) A. Outfall Inspection ds) DWG 271; S-MA20010781; 300 DIAM
- (clxv) A. Outfall Inspection dt) DWG 272; S-MA20010792; 300 DIAM
- (clxvi) A. Outfall Inspection du) DWG 273; S-MA20010799; 300 DIAM
- (clxvii) A. Outfall Inspection dw) DWG 287; S-MA20010432; 300 DIAM
- (clxviii) A. Outfall Inspection dx) DWG 288; S-MA20010431; 300 DIAM
- (clxix) A. Outfall Inspection dy) DWG 290; S-MA20010513; 300 DIAM
- (clxx) A. Outfall Inspection et) DWG 323; S-MA00013726; 300 DIAM
- (clxxi) A. Outfall Inspection cm) DWG 213; S-MA70041421; 250 DIAM
- (clxxii) A. Outfall Inspection es) DWG 322; S-MA70017405; 200 DIAM
- (clxxiii) A. Outfall Inspection ex) DWG 328; S-MA00017914; 200 DIAM

B17. AWARD OF CONTRACT

- B17.1 The City will give notice of the award of the Contract or will give notice that no award will be made.
- B17.2 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 responsible and qualified, and the Bids are determined to be responsive.
- B17.2.1 Without limiting the generality of B17.2, the City will have no obligation to award a Contract where:
 - (a) the prices exceed the available City funds for the Work;
 - (b) the prices are materially in excess of the prices received for similar work in the past;
 - (c) the prices are materially in excess of the City's cost to perform the Work, or a significant portion thereof, with its own forces;
 - (d) only one Bid is received; or
 - (e) in the judgment of the Award Authority, the interests of the City would best be served by not awarding a Contract.
- B17.3 Where an award of Contract is made by the City, the award shall be made to the responsible and qualified Bidder submitting the lowest evaluated responsive Bid in accordance with B16.
- B17.3.1 Following the award of contract, a Bidder will be provided with information related to the evaluation of his/her Bid upon written request to the Contract Administrator.
- B17.4 Notwithstanding C4.1, the City may issue a Purchase Order to the successful Bidder in lieu of the execution of a Contract.
- B17.5 The Contract Documents, as defined in C1.1(n)(ii), in their entirety shall be deemed to be incorporated in and to form a part of the Purchase Order notwithstanding that they are not necessarily attached to or accompany said Purchase Order.

PART C - GENERAL CONDITIONS

CO. GENERAL CONDITIONS

- C0.1 The General Conditions for Supply of Services (Revision 2007 04 12) are applicable to the Work of the Contract.
- C0.1.1 The General Conditions for Supply of Services are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at http://www.winnipeg.ca/matmgt/gen_cond.stm
- C0.2 A reference in the Bid Opportunity to a section, clause or subclause with the prefix "C" designates a section, clause or subclause in the *General Conditions for Supply of Services*.

PART D - SUPPLEMENTAL CONDITIONS

GENERAL

D1. GENERAL CONDITIONS

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

D2. SCOPE OF WORK

- D2.1 The Work to be done under the Contract shall consist of inspecting 164 existing outfall pipes and 9 sewer pipes, constituting a range in diameter from 200mm to 3700mm in height that totals 9.6km of outfall and 0.54km sewer pipe. Access to assets will be via associated control structures, lift stations or manholes located at various districts throughout the City of Winnipeg.
- D2.2 Outfalls that are at risk of no visual CCTV or 3D LASER inspections, that are likely below Winter River level, shall have SONAR Inspection work undertaken.
- D2.3 The major components of the Work are as follows:
 - (a) Outfall Inspection Work Program
 - (i) Access and Insertion of Inspection Equipment to the Outfall or associated Sewer Pipe
 - (ii) Circular CCTV, LASER and SONAR Inspection of Outfall Pipe
 - (iii) Egg CCTV, LASER and SONAR Inspection of Outfall Pipe
 - (iv) Post Processed CCTV and Data Submittal
 - (b) Linear Measured Sewer Inspection
 - Circular CCTV, LASER and SONAR Inspection of identified sewers upstream of the Outfall
 - (ii) Egg CCTV, LASER and SONAR Inspection of identified sewers upstream of the Outfall
 - (iii) Post Processed CCTV and Data Submittal
 - (c) Provisional Items
 - (i) Replace Standard Manhole Covers

D3. DEFINITIONS

- D3.1 When used in this Bid Opportunity:
 - (a) "WRc" means "Water Research Centre" which is accepted standard for sewer condition coding and assessment.
 - (b) **"Sewer"** shall refer to pipework that provides fluid conveyance from properties or catch basins, through the piped network for treatment or disposal.
 - (c) "Outfall" shall refer to the last pipe segment or segments that are used to convey flows to a final point of discharge into a body of water from a designated point or node on the system such as the last sewer system manhole, control structure or pumping station.

D4. CONTRACT ADMINISTRATOR

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

Christopher Mitchell, BSc Hons Asset Management Specialist

Telephone No. 204 477 5381

E-mail address: chris.mitchell@aecom.com

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

D5. CONTRACTOR'S SUPERVISOR

- D5.1 Further to C6.19, the Contractor shall employ and keep on the Work, at all times during the performance of the Work, a competent supervisor and assistants, if necessary, acceptable to the Contract Administrator. The supervisor shall represent the Contractor on the Site. The supervisor shall not be replaced without the prior consent of the Contract Administrator unless the supervisor proves to be unsatisfactory to the Contractor and ceases to be in his/her employ.
- D5.2 Before commencement of Work, the Contractor shall identify his/her designated supervisor and any additional personnel representing the Contractor and their respective roles and responsibilities for the Work.
- D5.2.1 Further to C5.5 Contract Administrator may give instructions or orders to the Contractor's supervisor and such instructions or orders shall be deemed to have been given to the Contractor.

D6. OWNERSHIP OF INFORMATION, CONFIDENTIALITY AND NON DISCLOSURE

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

D7. NOTICES

D7.1 Notwithstanding C22.3, all notices of appeal to the Chief Administrative Officer shall be sent to the attention of the Chief Financial Officer at the following facsimile number:

The City of Winnipeg Chief Financial Officer

Facsimile No.: 204-949-1174

D7.2 Bid Submissions must not be submitted to this facsimile number. Bids must be submitted in accordance with B8.

D8. FURNISHING OF DOCUMENTS

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

SUBMISSIONS

D9. AUTHORITY TO CARRY ON BUSINESS

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

D10. SAFE WORK PLAN

- D10.1 The Contractor shall provide the Contract Administrator with a Safe Work Plan at least five (5) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.
- D10.2 The Safe Work Plan should be prepared and submitted in the format shown in the City's template which is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at http://www.winnipeg.ca/matmgt/Safety/default.stm
- D10.3 Notwithstanding B12.4 at any time during the term of the Contract, the City may, at its sole discretion and acting reasonably, require an updated COR Certificate or Annual Letter of good Standing. A Contractor, who fails to provide a satisfactory COR Certificate or Annual Letter of good Standing, will not be permitted to continue to perform any Work.

D11. INSURANCE

- D11.1 The Contractor shall provide and maintain the following insurance coverage:
 - (a) commercial general liability insurance, in the amount of at least two million dollars (\$2,000,000.00) inclusive, with The City of Winnipeg added as an additional insured; such liability policy to also contain a cross-liability clause, non-owned automobile liability and products and completed operations cover, to remain in place at all times during the performance of the Work;
 - (b) if applicable, Automobile Liability Insurance covering all motor vehicles, owned and operated and used or to be used by the Contractor directly or indirectly in the performance of the Service. The Limit of Liability shall not be less than \$2,000,000 inclusive for loss or damage including personal injuries and death resulting from any one accident or occurrence.
- D11.2 Deductibles shall be borne by the Contractor.
- D11.3 The Contractor shall provide the Contract Administrator with a certificate(s) of insurance, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.
- D11.4 The Contractor shall not cancel, materially alter, or cause the policy to lapse without providing at least thirty (30) Calendar Days prior written notice to the Contract Administrator.

D12. SUBCONTRACTOR LIST

D12.1 The Contractor shall provide the Contract Administrator with a complete list of the Subcontractors whom the Contractor proposes to engage (Form J: Subcontractor List) at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.

D13. EQUIPMENT LIST

D13.1 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.

D14. DETAILED WORK SCHEDULE

- D14.1 The Contractor shall provide the Contract Administrator with a detailed work schedule at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.
- D14.2 The detailed work schedule shall consist of the following:
 - (a) a 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 the Work at each site.
 - all acceptable to the Contract Administrator.
- D14.3 Further to D14.2(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.
- D14.4 Further to D14.2(c), the deployment schedule shall show the time line required for the Work at each site for:
 - (a) Multi-Sensor inspection schedule.

SCHEDULE OF WORK

D15. COMMENCEMENT

- D15.1 The Contractor shall not commence any Work until he/she is in receipt of a notice of award from the City authorizing the commencement of the Work.
- D15.2 The Contractor shall not commence any Work on the Site until:
 - (a) the Contract Administrator has confirmed receipt and approval of:
 - evidence of authority to carry on business specified in D9;
 - (ii) evidence of the workers compensation coverage specified in C6.14; and
 - (iii) evidence of the insurance specified in D11.
 - (iv) The Safe Work Plan specified in D10.
 - (v) The Subcontractor list specified in D12.
 - (vi) The equipment list specified in D13.
 - (vii) The detailed work schedule specified in D14.
 - (b) the Contractor has attended a meeting with the Contract Administrator, or the Contract Administrator has waived the requirement for a meeting.

D15.3 The Contractor shall commence the Work on the Site within seven (7) Working Days of receipt of the notice of award.

D16. HOURS OF WORK

- D16.1 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.
- D16.2 No Work shall be performed outside the hours stated in D16.1 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.

D17. CRITICAL STAGES

- D17.1 The Contractor shall achieve critical stages of the Work in accordance with the following requirements:
 - (a) Critical Stage 1 Submit Sewer CCTV video, LASER and SONAR processed data with corresponding sewer defect coding and all deliverables as per E7 for fifty percent (50%) of the Outfall and Sewer Inspections by December 9, 2016.

D18. SUBSTANTIAL PERFORMANCE

- D18.1 The Contractor shall achieve Substantial Performance by May 26, 2017.
- D18.2 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 re-inspected.
- D18.3 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.

D19. TOTAL PERFORMANCE

- D19.1 The Contractor shall achieve Total Performance by June 9, 2017.
- D19.2 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 re-inspected.
- D19.3 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.

D20. LIQUIDATED DAMAGES

- D20.1 If the Contractor fails to achieve Critical Stages, Substantial Performance or Total Performance in accordance with the Contract by the days fixed herein for same, the Contractor shall pay the City the following amounts per Calendar Day for each and every Calendar Day following the days fixed herein for same during which such failure continues:
 - (a) Critical Stage 1 three hundred dollars (\$300);
 - (b) Substantial Performance one thousand five hundred dollars (\$1,500);

- (c) Total Performance seven hundred fifty dollars (\$750).
- D20.2 The amounts specified for liquidated damages in D20.1 are based on a genuine pre-estimate of the City's losses in the event that the Contractor does not achieve Critical Stages, Substantial Performance or Total Performance by the days fixed herein for same.
- D20.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

CONTROL OF WORK

D21. JOB MEETINGS

- D21.1 Regular weekly job meetings will be held at the Site. These meetings shall be attended by a minimum of one representative of the Contract Administrator, one representative of the City and one representative of the Contractor. Each representative shall be a responsible person capable of expressing the position of the Contract Administrator, the City and the Contractor respectively on any matter discussed at the meeting including the Work schedule and the need to make any revisions to the Work schedule. The progress of the Work will be reviewed at each of these meetings.
- D21.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he/she deems it necessary.

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

D22.1 Further to C6.23, 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).

D23. THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA) – QUALIFICATIONS

D23.1 Further to B12.4, the Contractor/Subcontractor must, throughout the term of the Contract, have a Workplace Safety and Health Program meeting the requirements of The Workplace Safety and Health Act (Manitoba). At any time during the term of the Contract, the City may, at its sole discretion and acting reasonably, require updated proof of compliance, as set out in B12.4.

D24. SAFETY

- D24.1 The Contractor shall be solely responsible for safety at the Site and for compliance with all laws, rules, regulations and practices required by the applicable safety legislation.
- D24.2 The Contractor shall be solely responsible for securing the Site, and any existing facility thereon, and for the proper care and protection of the Work already performed.
- D24.3 The Contractor shall do whatever is necessary to ensure that:
 - (a) no person, property, right, easement or privilege is injured, damaged or infringed by reason of the Contractor's activities in performing the Work;
 - (b) the health and safety of all persons employed in the performance of the Work or otherwise is not endangered by the method or means of its performance;
 - (c) adequate medical services are available to all persons employed on the Work and at all times during the performance of the Work.

MEASUREMENT AND PAYMENT

D25. PAYMENT

D25.1 Further to C11, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

WARRANTY

D26. WARRANTY

- D26.1 Warranty is as stated in C12.
- D26.2 The Contractor shall maintain backup copies of all video and inspection data for the duration of the Warranty Period.

FORM J: SUBCONTRACTOR LIST

(See D12)

2016 OUTFALL INSPECTIONS

<u>Name</u>	<u>Address</u>

FORM K: EQUIPMENT (See D13)

2016 OUTFALL INSPECTIONS

1. Category/type:	
Make/Model/Year:	Serial No.:
Registered owner:	
Make/Model/Year:	Serial No.:
Registered owner:	
Make/Model/Year:	Serial No.:
Registered owner:	
2. Category/type:	
Make/Model/Year:	Serial No.:
Registered owner:	
Make/Model/Year:	Serial No.:
Registered owner:	
Make/Model/Year:	Serial No.:
Registered owner:	
3. Category/type:	
Make/Model/Year:	Serial No.:
Registered owner:	
Make/Model/Year:	Serial No.:
Registered owner:	
Make/Model/Year:	Serial No.:
Registered owner:	

FORM K: EQUIPMENT (See D13)

2016 OUTFALL INSPECTIONS

4. Category/type:	
Make/Model/Year:	Serial No.:
Registered owner:	
Make/Model/Year:	Serial No.:
Registered owner:	
Make/Model/Year:	Serial No.:
Registered owner:	
5. Category/type:	
Make/Model/Year:	Serial No.:
Registered owner:	
Make/Model/Year:	Serial No.:
Registered owner:	
Make/Model/Year:	Serial No.:
Registered owner:	
6. Category/type:	
Make/Model/Year:	Serial No.:
Registered owner:	
Make/Model/Year:	Serial No.:
Registered owner:	
Make/Model/Year:	Serial No.:
Registered owner:	

PART E - SPECIFICATIONS

GENERAL

E1. APPLICABLE SPECIFICATIONS AND DRAWINGS

- E1.1 These Specifications shall apply to the Work.
- E1.2 The City of Winnipeg Standard Construction Specifications in its entirety, whether or not specifically listed on Form B: Prices, shall apply to the Work.
- E1.2.1 The City of Winnipeg Standard Construction Specifications is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at http://www.winnipeg.ca/matmgt/Spec/Default.stm.
- E1.2.2 The version in effect three (3) Business Days before the Submission Deadline shall apply.
- E1.2.3 Further to C2.4(d), Specifications included in the Bid Opportunity shall govern over *The City of Winnipeg Standard Construction Specifications*.
- E1.3 The following are applicable to the Work:

Appendix No. Title

A Outfall Inspections Work Program

B Fugitive Emission Material Safety Data Sheet – Hydrogen Sulphate Gas

Drawing No.	Drawing Name/Title			
1	Outfall	S-MA70106467	642 GILMORE AV	
2	Outfall	S-MA40003056	642 GILMORE AV	
8	Outfall	S-MA70031497	16 UXBRIDGE RD S	
9	Outfall	S-MA70031499	47 UXBRIDGE RD N	
10	Outfall	S-MA40001432	44 BRAHMS BAY	
11	Outfall	S-MA70008652	59 DELBROOK CRES	
12	Outfall	S-MA40000355	335 BONNER AVE	
13	Outfall	S-MA40000143	30 DELBROOK CRES	
15	Outfall	S-MA40000202	ROTHESAY ST & BONNER AVE	
16	Outfall	S-MA40000250	ROTHESAY ST & BONNER AVE	
17	Outfall	S-MA40000244	261 BONNER AVE	
19	Outfall	S-MA40000284	2075 HENDERSON HWY	
20	Outfall	S-MA40000289	2065 HENDERSON HWY	
24	Outfall	S-MA70062167	1180 KILDONAN DR	
26	Outfall	S-MA40001805	904 KILDONAN DR	
29	Outfall	S-MA40006872	694 KILDONAN DR	
32	Outfall	S-MA70043042	1 HART AVE	
33	Outfall	S-MA40011011	16 WATT ST	
53	Outfall	S-MA50010681	497 TREMBLAY	
61	Outfall	S-MA70028445	605 NIAKWA RD	
63	Outfall	S-MA70012111	47 SOUTHBRIDGE	
64	Outfall	S-MA70007384	385 WILLOWLAKE CRES UNIT 28	
65	Outfall	S-MA70015994	133 LAVALEE RD	
66	Outfall	S-MA70007543	220 ORCHARD HILL DR	
67	Outfall	S-MA70082045	850 JOHN BRUCE RD E UNIT 9	
68	Outfall	S-MA70053508	650 SHOREHILL DR	
69	Outfall	S-MA70097441	130 CREEK BEND RD	
70	Outfall	S-MA70003819	1139 ST ANNE'S RD UNIT 24	
71	Outfall	S-MA50007688	805 ST ANNE'S RD	
72	Outfall	S-MA50013542	755 ST ANNE'S RD	
73	Outfall	S-MA50008850	705 ST ANNE'S RD	
74	Outfall	S-MA70011100	631 ST ANNE'S RD	

Drawing No.	Drawing N	lame/Title	
76	Outfall	S-MA50017691	32 JOHN BRUCE RD
77	Outfall	S-MA50018093	43 RICHFIELD AVE
78	Outfall	S-MA70011372	117 LAVALEE RD
79	Outfall	S-MA50008353	23 MARLENE ST
81	Outfall	S-MA50008393	241 WORTHINGTON AVENUE
82	Outfall	S-MA50018567	241 HINDLEY AVE
84	Outfall	S-MA50014432	198 BERRYDALE AVE
85	Outfall	S-MA50012073	45 CLAYTON DR
86	Outfall	S-MA70001233	220 FERNWOOD AVE
87	Outfall	S-MA70011102	75A MORROW AVE
90	Outfall	S-MA50015374	303 EGERTON RD
98	Outfall	S-MA70022226	445 EDGEWOOD ST
99	Outfall	S-MA70022563	431 BERTRAND ST
105	Outfall	S-MA70017688	745 TACHE AVE
111	Outfall	S-MA70087426	465 TACHE AVE
114	Outfall	S-MA70008060	LYNDALE DR & WALMER ST
117	Outfall	S-MA70007510	5 MAGER DR
118	Outfall	S-MA70018393	5 MAGER DR
122	Outfall	S-MA70000304	429 KINGSTON CRES
124	Outfall	S-MA70000751	DUNKIRK DR & FERMOR AVE
135	Outfall	S-MA50010420	23 RIVERGATE DR
136	Outfall	S-MA70053500	27 RIVERGATE DR
137	Outfall	S-MA70074230	99 MARINE DR
138	Outfall	S-MA70016115	ST MARY'S RD & PERIMETER 100 HWY
141	Outfall	S-MA70028480	3564 PEMBINA HWY
146	Outfall	S-MA60023328	45 AV DE LA DIGUE
147	Outfall	S-MA60022470	GRANDMONT BLVD & PEMBINA HWY
148	Outfall	S-MA70039670	888 CLAUTIER DR
152	Outfall	S-MA70007547	822 KILKENNY DR
	Sewer	S-MA70095075	822 KILKENNY DR
153	Outfall	S-MA70007540	822 KILKENNY DR
4=0	Sewer	S-MA70095041	822 KILKENNY DR
156	Outfall	S-MA70087882	3100 BISHOP GRANDIN BLVD
157	Outfall	S-MA60016840	3100 BISHOP GRANDIN BLVD
159	Outfall	S-MA70007648	1002 RIVIERA CRES
162	Outfall	S-MA70032551	758 SOUTH DR
400	Sewer	S-MA70069303	758 SOUTH DR
163 168	Outfall Outfall	S-MA60013422 S-MA60012037	WILDWOOD B PK & NORTH DR 905 COCKBURN ST S
169	Outfall	S-MA70006325	CHURCHILL DR & OSBORNE ST
172	Outfall	S-MA60021687	ARNOLD AVE & ECCLES ST
172	Sewer	S-MA70022370	ARNOLD AVE & ECCLES ST
174	Outfall	S-MA70022370 S-MA70005806	80 CHURCHILL DR
175	Outfall	S-MA70032731	377 BRANDON AVE
177	Outfall	S-MA70032731	413 MULVEY AVE E
178	Outfall	S-MA70004387	105 MAYFAIR AVE
179	Outfall	S-MA60020193	1 ROSLYN RD
180	Outfall	S-MA70002491	393 WELLINGTON CRES
182	Outfall	S-MA70033501	1057 WELLINGTON CRES
102	Sewer	S-MA70033504	1057 WELLINGTON CRES
184	Outfall	S-MA70024441	1345 WELLINGTON CRES
186	Outfall	S-MA60006747	WELLINGTON CRES & KENASTON BLVD
189	Outfall	S-MA70029012	1810 WELLINGTON CRES
	Sewer	S-MA70029024	1810 WELLINGTON CRES
191	Outfall	S-MA60004165	ASSINIBOINE PARK DR & WELLINGTON CRES
194	Outfall	S-MA60003648	3087 VIALOUX DR
	Sewer	S-MA60003875	3087 VIALOUX DR
196	Outfall	S-MA60003741	4025 ROBLIN BLVD UNIT 21

Drawing No.	Drawing Na	ame/Title	
201	Outfall	S-MA60003371	4585 ROBLIN BLVD
203	Outfall	S-MA70030182	4901 ROBLIN BLVD
204	Outfall	S-MA60003299	23 HARTLAND COVE
205	Outfall	S-MA70041297	23 HARTLAND COVE
206	Outfall	S-MA70041572	23 HARTLAND COVE
207	Outfall	S-MA60003296	81 LANNOO DR
210	Outfall	S-MA60001604	6399 SOUTHBOINE DR
213	Outfall	S-MA70041421	63 SHIER DR
214	Outfall	S-MA60001546	63 SHIER DR
225	Outfall	S-MA20002806	100 COUNTRY CLUB
226	Outfall	S-MA70019662	2782 ASSINIBOINE AVE
227	Outfall	S-MA20003873	3011 PORTAGE AVE
228	Outfall	S-MA70008562	600 SETTER ST
229	Outfall	S-MA20003809	175 GREENWAY CRES W
231	Outfall	S-MA70114933	64 AMARYNTH CR
232	Outfall	S-MA20000065	20 ALCOTT ST
233	Outfall	S-MA20000064	20 ALCOTT ST
234	Outfall	S-MA20002395	VOYAGEUR AVE & CRESTVIEW PARK DR
236	Outfall	S-MA20002277	1088 CRESTVIEW PARK DR
237	Outfall	S-MA20002291	93 CARBERRY CRES
239	Outfall	S-MA20002435	183 HAMILTON AVE
241	Outfall	S-MA20000076	3145 NESS AVE
242	Outfall	S-MA20000072	3145 NESS AVE
243	Outfall	S-MA20000247	66 KIRBY DR
245	Outfall	S-MA20000107	34 LONSDALE DR
246	Outfall	S-MA20003870	600 SETTER ST
249	Outfall	S-MA70078949	2741 PORTAGE AVE
252	Outfall	S-MA70006919	2558 ASSINIBOINE CRES
253	Outfall	S-MA20005373	2464 ASSINIBOINE CRES
254	Outfall	S-MA70011382	2450 ASSINIBOINE CRES
255	Outfall	S-MA70053788	2398 PORTAGE AVE
257	Outfall	S-MA70049736	2086 PORTAGE AVE
260	Outfall	S-MA20008519	83 DOUGLAS PARK RD
261	Outfall	S-MA70019346	40 FERRY RD
262	Outfall	S-MA20008800	1752 ASSINIBOINE AVE
	Sewer	S-MA70019337	1752 ASSINIBOINE AVE
263	Outfall	S-MA20008967	125 PARKSIDE DR
264	Outfall	S-MA70021246	480 ST JAMES ST
269	Outfall	S-MA20011477	522 RAGLAN RD
270	Outfall	S-MA70013057	JACK BLICK AVE & EMPRESS ST
271	Outfall	S-MA20010781	EMPRESS ST & MAROONS RD
272	Outfall	S-MA20010792	MAROONS RD & EMPRESS ST
273	Outfall	S-MA20010799	MAROONS RD & EMPRESS ST
284	Outfall	S-MA70009397	1150 SANFORD ST
287	Outfall	S-MA20010432	1447 WELLINGTON AVE
288	Outfall	S-MA20010431	1200 EMPRESS ST
290	Outfall	S-MA20010513	1265 EMPRESS ST
293	Outfall	S-MA20007260	73 AIRPORT RD
294	Outfall	S-MA20006898	21 SYLVAN WAY
296	Outfall	S-MA70008731	1254 WOLSELEY AVE
297	Outfall	S-MA70017585	1020 PALMERSTON AVE
300	Outfall	S-MA70022480	986 PALMERSTON AVE
302	Outfall	S-MA70017866	850 PALMERSTON AVE
303	Outfall	S-MA20013630	110 CORNISH AVE
306	Outfall	S-MA70103641	30 SPENCE ST
307	Outfall	S-MA20014505	GRANITE WAY
308	Outfall	S-MA70068974	446 ASSINIBOINE AVE
309	Outfall	S-MA20014087	356 ASSINIBOINE AVE

310 Outfall S-MA20014095 318 ASSINIBOINE AVE 311 Outfall S-MA70008123 60 MAIN ST 312 Outfall S-MA70016043 60 MAIN ST 313 Outfall S-MA20013203 2 FORT GIBRALTAR TRAIL 314 Outfall S-MA20013233 2 FORT GIBRALTAR TRAIL 314 Outfall S-MA70014674 90 PIONEER AVE 316 Outfall S-MA70010332 WATERFRONT DR & MCDERMOT AVE 317 Outfall S-MA70000991 BANNATYNE AVE 319 Outfall S-MA70017405 ROVER AVE & DISRAELI ST 322 Outfall S-MA70017405 ROVER AVE & DISRAELI FWY 324 Outfall S-MA70029924 ROVER AVE & DISRAELI ST 325 Outfall S-MA70007427 108 SELKIRK AVE 328 Outfall S-MA00017926 114 BURROWS AVE 329 Outfall S-MA70007551 20 ANDERSON AVE 330 Outfall S-MA00017967 79 SCOTIA ST 331 Outfall S-MA000017633 <th>Drawing No.</th> <th>Drawing N</th> <th colspan="4">Name/Title</th>	Drawing No.	Drawing N	Name/Title			
312 Outfall S-MA70016043 60 MAIN ST 313 Outfall S-MA20013203 2 FORT GIBRALTAR TRAIL 314 Outfall S-MA70014674 90 PIONEER AVE 316 Outfall S-MA20013332 WATERFRONT DR & MCDERMOT AVE 317 Outfall S-MA70000991 BANNATYNE AVE 319 Outfall S-MA70021229 GALT AV & DUNCAN ST 322 Outfall S-MA70017405 ROVER AVE & DISRAELI ST 323 Outfall S-MA00013726 ROVER AVE & DISRAELI FWY 324 Outfall S-MA70029924 ROVER AVE & DISRAELI ST 325 Outfall S-MA70007427 108 SELKIRK AVE 327 Outfall S-MA00017926 114 BURROWS AVE 328 Outfall S-MA00017914 150 ABERDEEN AVE 329 Outfall S-MA70007551 20 ANDERSON AVE 330 Outfall S-MA00017967 79 SCOTIA ST 334 Outfall S-MA00017939 111 SCOTIA ST 336 Outfall S-MA00001700	310	Outfall	S-MA20014095	318 ASSINIBOINE AVE		
313 Outfall S-MA20013203 2 FORT GIBRALTAR TRAIL 314 Outfall S-MA70014674 90 PIONEER AVE 316 Outfall S-MA20013332 WATERFRONT DR & MCDERMOT AVE 317 Outfall S-MA70000991 BANNATYNE AVE 319 Outfall S-MA70021229 GALT AV & DUNCAN ST 322 Outfall S-MA70017405 ROVER AVE & DISRAELI ST 323 Outfall S-MA70017405 ROVER AVE & DISRAELI ST 324 Outfall S-MA70029924 ROVER AVE & DISRAELI ST 325 Outfall S-MA70029924 ROVER AVE & DISRAELI ST 326 Outfall S-MA70017926 114 BURROWS AVE 327 Outfall S-MA00017926 114 BURROWS AVE 328 Outfall S-MA00017914 150 ABERDEEN AVE 329 Outfall S-MA70007551 20 ANDERSON AVE 330 Outfall S-MA00017937 79 SCOTIA ST 331 Outfall S-MA00017633 479 SCOTIA ST 336 Outfall S-MA0000	311	Outfall	S-MA70008123	60 MAIN ST		
314 Outfall S-MA70014674 90 PIONEER AVE 316 Outfall S-MA20013332 WATERFRONT DR & MCDERMOT AVE 317 Outfall S-MA70000991 BANNATYNE AVE 319 Outfall S-MA70021229 GALT AV & DUNCAN ST 322 Outfall S-MA70017405 ROVER AVE & DISRAELI ST 323 Outfall S-MA00013726 ROVER AVE & DISRAELI FWY 324 Outfall S-MA70029924 ROVER AVE & DISRAELI ST 325 Outfall S-MA70007427 108 SELKIRK AVE 327 Outfall S-MA00017926 114 BURROWS AVE 328 Outfall S-MA00017914 150 ABERDEEN AVE 329 Outfall S-MA70007551 20 ANDERSON AVE 330 Outfall S-MA70016460 79 SCOTIA ST 331 Outfall S-MA00017939 111 SCOTIA ST 334 Outfall S-MA00017633 479 SCOTIA ST 336 Outfall S-MA00000385 2641 SCOTIA ST 338 Outfall S-MA70052164	312	Outfall	S-MA70016043	60 MAIN ST		
316 Outfall S-MA20013332 WATERFRONT DR & MCDERMOT AVE 317 Outfall S-MA70000991 BANNATYNE AVE 319 Outfall S-MA70021229 GALT AV & DUNCAN ST 322 Outfall S-MA70017405 ROVER AVE & DISRAELI ST 323 Outfall S-MA00013726 ROVER AVE & DISRAELI FWY 324 Outfall S-MA70029924 ROVER AVE & DISRAELI ST 325 Outfall S-MA70007427 108 SELKIRK AVE 327 Outfall S-MA00017926 114 BURROWS AVE 328 Outfall S-MA00017914 150 ABERDEEN AVE 329 Outfall S-MA70007551 20 ANDERSON AVE 330 Outfall S-MA70016460 79 SCOTIA ST 331 Outfall S-MA00017939 111 SCOTIA ST 334 Outfall S-MA00017633 479 SCOTIA ST 336 Outfall S-MA000000385 2641 SCOTIA ST 338 Outfall S-MA70052164 46 RIVER RIDGE DR 339 Outfall S-MA70070656	313	Outfall	S-MA20013203	2 FORT GIBRALTAR TRAIL		
317 Outfall S-MA70000991 BANNATYNE AVE 319 Outfall S-MA70021229 GALT AV & DUNCAN ST 322 Outfall S-MA70017405 ROVER AVE & DISRAELI ST 323 Outfall S-MA00013726 ROVER AVE & DISRAELI FWY 324 Outfall S-MA70029924 ROVER AVE & DISRAELI ST 325 Outfall S-MA70007427 108 SELKIRK AVE 327 Outfall S-MA00017926 114 BURROWS AVE 328 Outfall S-MA00017914 150 ABERDEEN AVE 329 Outfall S-MA70007551 20 ANDERSON AVE 330 Outfall S-MA00017967 79 SCOTIA ST 331 Outfall S-MA70016460 79 SCOTIA ST 334 Outfall S-MA00017633 479 SCOTIA ST 336 Outfall S-MA00017100 1400 KILDONAN DR 337 Outfall S-MA00000385 2641 SCOTIA ST 338 Outfall S-MA70070656 203 MCBETH 340 Outfall S-MA000000073 219 MCBETH	314	Outfall	S-MA70014674	90 PIONEER AVE		
319 Outfall S-MA70021229 GALT AV & DUNCAN ST 322 Outfall S-MA70017405 ROVER AVE & DISRAELI ST 323 Outfall S-MA00013726 ROVER AVE & DISRAELI FWY 324 Outfall S-MA70029924 ROVER AVE & DISRAELI ST 325 Outfall S-MA70007427 108 SELKIRK AVE 327 Outfall S-MA00017926 114 BURROWS AVE 328 Outfall S-MA00017914 150 ABERDEEN AVE 329 Outfall S-MA70007551 20 ANDERSON AVE 330 Outfall S-MA00017967 79 SCOTIA ST 331 Outfall S-MA70016460 79 SCOTIA ST 334 Outfall S-MA00017633 479 SCOTIA ST 336 Outfall S-MA00017100 1400 KILDONAN DR 337 Outfall S-MA00000385 2641 SCOTIA ST 338 Outfall S-MA70052164 46 RIVER RIDGE DR 339 Outfall S-MA70070656 203 MCBETH 340 Outfall S-MA00000073 219 MCBE	316	Outfall	S-MA20013332	WATERFRONT DR & MCDERMOT AVE		
322 Outfall S-MA70017405 ROVER AVE & DISRAELI ST 323 Outfall S-MA00013726 ROVER AVE & DISRAELI FWY 324 Outfall S-MA70029924 ROVER AVE & DISRAELI ST 325 Outfall S-MA70007427 108 SELKIRK AVE 327 Outfall S-MA00017926 114 BURROWS AVE 328 Outfall S-MA00017914 150 ABERDEEN AVE 329 Outfall S-MA70007551 20 ANDERSON AVE 330 Outfall S-MA00017967 79 SCOTIA ST 331 Outfall S-MA70016460 79 SCOTIA ST 334 Outfall S-MA00017939 111 SCOTIA ST 336 Outfall S-MA00017633 479 SCOTIA ST 336 Outfall S-MA000017100 1400 KILDONAN DR 337 Outfall S-MA000000385 2641 SCOTIA ST 338 Outfall S-MA70052164 46 RIVER RIDGE DR 339 Outfall S-MA70070656 203 MCBETH 340 Outfall S-MA000000073 219 MCBETH	317	Outfall	S-MA70000991	BANNATYNE AVE		
323 Outfall S-MA00013726 ROVER AVE & DISRAELI FWY 324 Outfall S-MA70029924 ROVER AVE & DISRAELI ST 325 Outfall S-MA70007427 108 SELKIRK AVE 327 Outfall S-MA00017926 114 BURROWS AVE 328 Outfall S-MA00017914 150 ABERDEEN AVE 329 Outfall S-MA70007551 20 ANDERSON AVE 330 Outfall S-MA00017967 79 SCOTIA ST 331 Outfall S-MA70016460 79 SCOTIA ST 334 Outfall S-MA00017939 111 SCOTIA ST 336 Outfall S-MA00017633 479 SCOTIA ST 336 Outfall S-MA000017100 1400 KILDONAN DR 337 Outfall S-MA000000385 2641 SCOTIA ST 338 Outfall S-MA70052164 46 RIVER RIDGE DR 339 Outfall S-MA70070656 203 MCBETH 340 Outfall S-MA000000073 219 MCBETH GROVE	319	Outfall	S-MA70021229	GALT AV & DUNCAN ST		
324 Outfall S-MA70029924 ROVER AVE & DISRAELI ST 325 Outfall S-MA70007427 108 SELKIRK AVE 327 Outfall S-MA00017926 114 BURROWS AVE 328 Outfall S-MA00017914 150 ABERDEEN AVE 329 Outfall S-MA70007551 20 ANDERSON AVE 330 Outfall S-MA00017967 79 SCOTIA ST 331 Outfall S-MA70016460 79 SCOTIA ST 334 Outfall S-MA00017939 111 SCOTIA ST 336 Outfall S-MA00017633 479 SCOTIA ST 336 Outfall S-MA000017100 1400 KILDONAN DR 337 Outfall S-MA000000385 2641 SCOTIA ST 338 Outfall S-MA70052164 46 RIVER RIDGE DR 339 Outfall S-MA70070656 203 MCBETH 340 Outfall S-MA000000073 219 MCBETH GROVE	322	Outfall	S-MA70017405	ROVER AVE & DISRAELI ST		
325 Outfall S-MA70007427 108 SELKIRK AVE 327 Outfall S-MA00017926 114 BURROWS AVE 328 Outfall S-MA00017914 150 ABERDEEN AVE 329 Outfall S-MA70007551 20 ANDERSON AVE 330 Outfall S-MA00017967 79 SCOTIA ST Sewer S-MA70016460 79 SCOTIA ST 331 Outfall S-MA00017939 111 SCOTIA ST 334 Outfall S-MA00017633 479 SCOTIA ST 336 Outfall S-MA00017100 1400 KILDONAN DR 337 Outfall S-MA00000385 2641 SCOTIA ST 338 Outfall S-MA70052164 46 RIVER RIDGE DR 339 Outfall S-MA70070656 203 MCBETH 340 Outfall S-MA000000073 219 MCBETH GROVE	323	Outfall	S-MA00013726	ROVER AVE & DISRAELI FWY		
327 Outfall S-MA00017926 114 BURROWS AVE 328 Outfall S-MA00017914 150 ABERDEEN AVE 329 Outfall S-MA70007551 20 ANDERSON AVE 330 Outfall S-MA00017967 79 SCOTIA ST Sewer S-MA70016460 79 SCOTIA ST 331 Outfall S-MA00017939 111 SCOTIA ST 334 Outfall S-MA00017633 479 SCOTIA ST 336 Outfall S-MA00017100 1400 KILDONAN DR 337 Outfall S-MA00000385 2641 SCOTIA ST 338 Outfall S-MA70052164 46 RIVER RIDGE DR 339 Outfall S-MA70070656 203 MCBETH 340 Outfall S-MA000000073 219 MCBETH GROVE	324	Outfall	S-MA70029924	ROVER AVE & DISRAELI ST		
328 Outfall S-MA00017914 150 ABERDEEN AVE 329 Outfall S-MA70007551 20 ANDERSON AVE 330 Outfall S-MA00017967 79 SCOTIA ST 331 Outfall S-MA00017939 111 SCOTIA ST 334 Outfall S-MA00017633 479 SCOTIA ST 336 Outfall S-MA00017100 1400 KILDONAN DR 337 Outfall S-MA00000385 2641 SCOTIA ST 338 Outfall S-MA70052164 46 RIVER RIDGE DR 339 Outfall S-MA70070656 203 MCBETH 340 Outfall S-MA00000073 219 MCBETH GROVE	325	Outfall	S-MA70007427	108 SELKIRK AVE		
329 Outfall S-MA70007551 20 ANDERSON AVE 330 Outfall S-MA00017967 79 SCOTIA ST Sewer S-MA70016460 79 SCOTIA ST 331 Outfall S-MA00017939 111 SCOTIA ST 334 Outfall S-MA00017633 479 SCOTIA ST 336 Outfall S-MA00017100 1400 KILDONAN DR 337 Outfall S-MA00000385 2641 SCOTIA ST 338 Outfall S-MA70052164 46 RIVER RIDGE DR 339 Outfall S-MA70070656 203 MCBETH 340 Outfall S-MA000000073 219 MCBETH GROVE	327	Outfall	S-MA00017926	114 BURROWS AVE		
330 Outfall S-MA00017967 79 SCOTIA ST Sewer S-MA70016460 79 SCOTIA ST 331 Outfall S-MA00017939 111 SCOTIA ST 334 Outfall S-MA00017633 479 SCOTIA ST 336 Outfall S-MA00017100 1400 KILDONAN DR 337 Outfall S-MA00000385 2641 SCOTIA ST 338 Outfall S-MA70052164 46 RIVER RIDGE DR 339 Outfall S-MA70070656 203 MCBETH 340 Outfall S-MA00000073 219 MCBETH GROVE	328	Outfall	S-MA00017914	150 ABERDEEN AVE		
Sewer S-MA70016460 79 SCOTIA ST 331 Outfall S-MA00017939 111 SCOTIA ST 334 Outfall S-MA00017633 479 SCOTIA ST 336 Outfall S-MA00017100 1400 KILDONAN DR 337 Outfall S-MA00000385 2641 SCOTIA ST 338 Outfall S-MA70052164 46 RIVER RIDGE DR 339 Outfall S-MA70070656 203 MCBETH 340 Outfall S-MA000000073 219 MCBETH GROVE	329	Outfall	S-MA70007551	20 ANDERSON AVE		
331 Outfall S-MA00017939 111 SCOTIA ST 334 Outfall S-MA00017633 479 SCOTIA ST 336 Outfall S-MA00017100 1400 KILDONAN DR 337 Outfall S-MA00000385 2641 SCOTIA ST 338 Outfall S-MA70052164 46 RIVER RIDGE DR 339 Outfall S-MA70070656 203 MCBETH 340 Outfall S-MA00000073 219 MCBETH GROVE	330	Outfall	S-MA00017967	79 SCOTIA ST		
334 Outfall S-MA00017633 479 SCOTIA ST 336 Outfall S-MA00017100 1400 KILDONAN DR 337 Outfall S-MA00000385 2641 SCOTIA ST 338 Outfall S-MA70052164 46 RIVER RIDGE DR 339 Outfall S-MA70070656 203 MCBETH 340 Outfall S-MA00000073 219 MCBETH GROVE		Sewer	S-MA70016460	79 SCOTIA ST		
336 Outfall S-MA00017100 1400 KILDONAN DR 337 Outfall S-MA00000385 2641 SCOTIA ST 338 Outfall S-MA70052164 46 RIVER RIDGE DR 339 Outfall S-MA70070656 203 MCBETH 340 Outfall S-MA00000073 219 MCBETH GROVE	331	Outfall	S-MA00017939	111 SCOTIA ST		
337 Outfall S-MA00000385 2641 SCOTIA ST 338 Outfall S-MA70052164 46 RIVER RIDGE DR 339 Outfall S-MA70070656 203 MCBETH 340 Outfall S-MA00000073 219 MCBETH GROVE	334	Outfall	S-MA00017633	479 SCOTIA ST		
338 Outfall S-MA70052164 46 RIVER RIDGE DR 339 Outfall S-MA70070656 203 MCBETH 340 Outfall S-MA00000073 219 MCBETH GROVE	336	Outfall	S-MA00017100	1400 KILDONAN DR		
339 Outfall S-MA70070656 203 MCBETH 340 Outfall S-MA00000073 219 MCBETH GROVE	337	Outfall	S-MA00000385	2641 SCOTIA ST		
Outfall S-MA00000073 219 MCBETH GROVE	338	Outfall	S-MA70052164	46 RIVER RIDGE DR		
	339	Outfall	S-MA70070656	203 MCBETH		
Outfall S-MA00000120 82 SUMMERVIEW LN	340	Outfall	S-MA00000073	219 MCBETH GROVE		
	341	Outfall	S-MA00000120	82 SUMMERVIEW LN		

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 Space 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.

E3. SEWER & OUTFALL INSPECTION

- E3.1 This specification amends and supplements specification CW 2145.
- E3.1.1 Further to Section 3.4 with:
 - (a) The Contract Administrator will offer the Successful Bidder a half day training session to reinforce the acceptance criteria for coding defects within Outfall pipes with the City's Consultant during the kick off meeting.
- E3.1.2 Further to Section 3.13, a paper or "hard copy" of the inspection reports is not required and the digital format should be submitted on a CD-R.
 - (a) The Contractor shall supply separately two (2), 2.5 inch portable hard disk drives (HDD), complete with all operating software, power adaptors and USB cables, containing all video inspections and coding data to the City upon:
 - (i) Completion of D17.1(a) Critical Stage 1;
 - (ii) Completion of the project.

- (b) The HDD's shall be sized appropriately to accommodate all above mentioned files and have dual USB 3.0 and USB 2.0 compatibility with a minimum data transfer rate of 480 Mb/s.
- E3.1.3 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.
- E3.1.4 Further to Section 3.19.2, incomplete Surveys shall also be communicated via the SharePoint Site indicating the date and time of the attempt, reasoning, efforts and actions set out by Section 3.19 and reviewed with the Contract Administrator on a weekly basis.
- E3.1.5 Further to Section 3.19.2, incomplete Surveys that are due to GIS error reporting shall also be communicated via the SharePoint Site indicating which host sewer was used for the inspection, detailing all other assets that are merged into the host inspection.
- E3.1.6 Further to Section 3.22.1, clear water infiltration observations shall also be communicated via the SharePoint Site, providing asset number, location, date and time of the observation, description with attached screen captures to help facilitate Section 3.19.

E3.1.7 Submittals

- (a) Sample Documentation:
 - (i) Provide a sample report of each type of inspection (e.g. SONAR, CCTV and LASER) with your submission, including digital MPEG DVD-R video recording and corresponding magnetic data file of an actual sewer performed by each device before beginning the inspection work.
- (b) In-pipe Outfall Inspection Emergency Plan
 - (i) The Contractor shall submit an Emergency Plan that outlines proposed methods for recovering in-line inspection equipment that has become lodged, lost or uncontrollable within the Outfall or adjacent watercourse. For information, the Contractor's attention is called to Clauses 3.2.1 and 4.7 of CW 2145.
- E3.1.8 The general sequence of Work activities is as follows:
 - (a) Coordinate with WWD Operations and Contract Administrator as necessary to arrange for City owned site access as required.
 - (b) Liaise with Contract Administrator to ensure that Private Land Owners have been communicated and are aware of site access dates, likely disruption and potential damage to private property as described in Section E6.
 - (c) Establish access to the inspection site as required.
 - (d) Mobilize to the inspection site.
 - (e) Erect temporary traffic control devices as required.
 - (f) Open and prepare manhole(s) or control structure for insertion of inspection equipment.
 - (g) Perform the in-line Outfall or Sewer inspection.
 - (h) Recover the inspection equipment and close the manhole(s) or control structure.
 - (i) Remove temporary traffic control devices if used.
 - (j) Demobilize, and move to the next inspection site.
 - (k) Carry out any restoration required as result of establishing access to the inspection site.
 - Process the inspection data and submit an inspection report.

- (m) The Contractor shall remove all equipment from the Outfall and any adjoining sewers at the end of each shift if inspection is not complete.
- E3.1.9 Further to E3.1.8 all exposed City Asset Outfall pipe ends that exhibit protection bars, grills and grates will be removed by City Operatives as necessary, prior to inspection. Protection bars, grills and grates located on submerged Outfall pipe ends will not be removed due to health and safety concerns.

E3.2 Existing Conditions

E3.2.1 Outfall Sewers:

- (a) The City's Outfall Inventory services the following flow types where 59% service the Land Drainage network, 21% service the Combined Sewer network, 13% service the Storm Relief Sewers and 7% service the Waste Water Sewer network. Inspection of the pipes will be subject to inhibitive conditions such as but not limited to River Levels, the use of flow diversion structures during storm events, access restrictions and or plant and equipment limitations to site.
- (b) The seasonal variation in the river level plays an important role in determining when the inspection of outfall structures is feasible. The relationship between outlet invert elevation and typical river levels varies from structure to structure. Some facilities will only become visible during winter periods when the river is at its lowest levels while other facilities will remain completely submerged at that time, thus requirement for multi-sensor inspection technologies.
 - (i) Previous Investigations
 - ♦ Exposer of the pipes ends varied during the Fall and Winter of 2015 where 84 of the 164 Outfall were partially submerged of varying levels, from 10% dry weather flow through to 75% of the cross sectional area of the pipe where river levels were between 6.1ft and 2.2ft above St. James during the geotechnical inspections. The remaining inventory was either determined as visually submerged or not located, suggesting deeper submersion towards the river bed. Photographs that identify the outfall locations have been placed within Asset Cards and are available from the Contract Administrator upon request.
 - Of the exposed Outfalls, 30 exhibited 10 to 75% cross sectional area loss at the pipe end due to silt and debris deposits at the time of the Geotechnical Inspections.
- (c) Sewers identified on Drawing Numbers 152, 153, 162, 172, 182, 189, 194, 262, and 330 have been included to facilitate the inspection of the downstream Outfall pipe. These sewer pipes may also be located downstream of a known control structure or pump station and will also be subject to river level conditions.

E3.3 Measurement and Payment

- E3.3.1 Further to Section 4.4, Outfall Inspections will be measured on a unit rate basis for "Access and Insertion", a length basis for Inspection and a length basis for "Post Processed Inspection CCTV and Electronic Data" for each Outfall and paid for at the Contract Unit Price for "Outfall Inspections". Items and Lengths to be paid for will be the measured length of Outfall inspected in accordance with CW2145 and this specification, accepted and measured by the Contract Administrator.
- E3.3.2 Form B has identified the contemplated use of technologies for each location based on pipe end exposure during the Geotechnical Assessment Survey of Fall / Winter 2015, though submitted unit rates should reflect the use of all available and capable technologies given the conditions within the Outfall or Sewer pipe at the time of inspection.
 - (a) Sewer and Outfall Inspections
 - (i) Access and Insertion
 - (i) Mobilization, Insertion and demobilization for each Outfall site will be measured on a unit basis and paid for at the Contract Unit Price for "Access and Insertion"

- into the Outfall or associated Sewer pipe. One unit of "Access and Insertion" will be paid for each Outfall Location, accepted and measured by the Contract Administrator.
- (ii) Additional Payment will not be made for Access and Insertion where any consequential inspections there are re-performed where the Contract Administrator has determined the requirements of the Specification have not been satisfied.

(ii) Inspection

- (i) CCTV, Three Dimensional (3D) LASER Scanning and / or SONAR Inspections will be measured on a lineal meter basis and paid for at the Contract Unit Price for "Sewer Inspection" or "Outfall Inspection". Number of lineal meters to be paid for will be the total number of meters of acceptable inspection from the start to the finish access point inspected in accordance with this Specification, accepted and measured by the Contract Administrator.
 - For all Inspection Sites, seventy-five percent (75%) of the unit price bid for this Work will be paid upon completion for each Outfall site. The remaining 25 percent (25%) of the bid price will be held back until the required associated Post Processed data report submissions are accepted by the Contract Administrator.
 - Payment will not be made for Outfall inspections re-performed where the Contract Administrator has determined the requirements of the Specification have not been satisfied.

(iii) Post Processed CCTV and Data Submittal

(i) Payment as per E4.3.1 CCTV, Three Dimensional (3D) LASER Scanning and SONAR Data will be measured on a lineal meter basis and paid for at the Contract Unit Price for "Post Processed Data". Number of lineal meters to be paid for will be the total number of meters of acceptable visual and electronic data associated with each technology for each inspection from start to finish access point inspected in accordance with this Specification, accepted and measured by the Contract Administrator.

(b) Abandonment Sewer and Outfall Inspection

(i) Further to Section's 3.19 and 4.4, where Outfall or Sewer inspections are abandoned due to site conditions, payment shall be made as per E3.3 upon receipt of all Inspection data and associated coding, that details all observations and reasoning for the survey abandonment. Contractors Equipment failure will not be grounds for survey abandonment. Payment shall be in accordance with this Specification, accepted and measured by the Contract Administrator.

(c) Basis of Payment

- (i) Payment will be made at the Contract Unit Price for the "Items of Work" listed on Form B: Prices, measured as specified herein, which price shall be payment in full for performing all operations herein described and all other items incidental to the Work included in this Specification.
- (ii) For all Inspection Sites, seventy-five percent (75%) of the unit price bid for this Work will be paid upon reaching Total Performance. 25 percent (25%) of the bid price will be held back until the Final Inspection Report has been reviewed and acceptance inspection is completed. The holdback for receipt of the Final Inspection Report will not affect the determination or issuance of Total Performance for the Contract.
- (iii) Payment will not be made for inspections re-performed where the Contract Administrator has determined the requirements of the specification have not been satisfied.

E4. SEWER & OUTFALL INSPECTION EQUIPMENT

- E4.1 Sewer Inspection Equipment
- E4.1.1 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.
- E4.1.2 In areas where a self-propelled track-mounted platform is not possible to use during the Sewer or Outfall Inspections, the inspections shall be performed using a tethered float or skid system. The Contractor shall notify the Contract Administrator prior to the use of either platform.
- E4.2 In-Line Inspection Platform
- E4.2.1 Minimum requirements of the in-line inspection platform 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 500m 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 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.
- E4.3 In-Line Inspection Sensors / Technologies
- E4.3.1 Minimum requirements of the inspection sensors / technologies include:
 - (a) CCTV Video Inspection
 - (i) Equipment shall conform to CW 2145, except as modified herein.
 - (ii) Equipment shall be capable of continuously capturing digital video from first generation recordings with no frame loss, regardless of the progression of the inspection.
 - (iii) Equipment shall be used to acquire continuous digital video images of the sewer for the entire length being inspected.
 - Perform sewer condition coding in accordance with the requirements of the WRc Manual of Sewer Condition Classification 3Rd Edition.
 - Perform condition coding using operators who can demonstrate proficiency coding in accordance with the requirements of the WRc "Manual of Sewer Condition Classification 3RD Edition".
 - ◆ Ensure each operator is fully trained in all aspects of sewer inspection and capable of making accurate observations and recording all conditions that may be encountered in the sewers.
 - 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 WRc Manual of Sewer Condition Classification 3Rd Edition.
 - ♦ Incorporate a suitable distance-reading device to measure the location of the equipment in the pipe, to an accuracy of ±0.5% of the length of the inspection.

- (b) Three Dimensional (3D) LASER Scanning Inspection
 - (i) "Three Dimensional (3D) Light Amplification by Stimulated Emission of Radiation Scanning" (LASER) is a technique to determine the surface profile of mainline pipes using a three dimensional (3D) LASER on the entire circumference above fluid level of the pipe which does not need to be attached to the CCTV inspection equipment.
 - (ii) LASER scanning equipment shall provide an accurate determination of pipe geometry (features and defects) above the fluid level.
 - (iii) Minimum equipment requirements are:
 - ◆ The provision of LASER scanning Internal Diameter and Deflection graphs will be used to quantify internal pipe wall material loss/gain or deformation (ovality and deflection) at a given location. Pipe crosssections obtained from high resolution scans will be used to provide quantitative information regarding internal pipe diameter, including ovality. Precision Scans are produced with multi-colour indication depicting deviations from as built conditions as well as localized material gain and/or loss.
 - ◆ The LASER shall be Class 1; eye-safe for operator safety.
 - Surface corrosion measurements accurate to 5mm at 3 metres in 1220mm (48 inch) pipes and larger.
 - ◆ Precision ovality / deflection detailed range LASER measurement scans accurate to ±1%.
 - LASER scanning shall be conducted in all Sewer and Outfall pipe entities and be conducted from access point to access point. LASER equipment shall be moved through the pipeline on a transport vehicle capable of supporting the LASER inspection equipment above the water level.
 - LASER scans shall produce a point cloud with a maximum distance between points of 10 mm in the transverse direction and 40 mm in the longitudinal direction. The rate of scan shall not exceed 9 m / minute.
- (c) SONAR Scanning Inspection
 - (i) Sound Navigation and Ranging (SONAR) scanning equipment shall accurately measure the depth to sediment or pipe surface below the fluid level at regular intervals throughout the inspection.
 - (ii) Minimum equipment requirements are:
 - SONAR equipment must be programmable multi-frequency profiling SONAR specifically adapted to using sound waves to locate and map subaqueous sewer irregularities by creating continuous SONAR images recorded in "real time" mode.
 - SONAR equipment shall be digital, and support a range of frequencies from 600 kHz to 2.25 MHz to minimize noise.
 - ◆ The range resolution measurement error shall be no greater than 2.0mm from distances of 1 to 4m, and no greater than 10.2mm from distances of beyond 5m.
 - The minimum detectable range for the SONAR unit shall be 150mm.
 - SONAR range resolution measurement error no greater than 2mm from a distance of 1 to 4m and no greater than 10mm from distances of beyond 5m.

E5. TRAFFIC CONTROL AND MAINTENANCE OF ACCESS

E5.1 Further to Section 3.7 of CW 1130 of the General Requirements the Contractor shall be responsible to redirect and maintain traffic with appropriate signing in accordance with The City of Winnipeg, "Manual of Temporary Traffic Control in Work Areas on City Streets" at all times.

- The "Manual of Temporary Traffic Control in Work Areas on City Streets" can be found online at: (http://www.winnipeg.ca/publicworks/Transportation/manual-2008-03-27.pdf).
- E5.2 Work shall not be carried out on Regional Streets between 07:00 to 09:00 hours and 15:30 to 17:30 hours Monday to Friday unless approved by the Contract Administrator.
- E5.3 Should the City of Winnipeg require that Work on Regional Streets be carried out at night, on Sundays or on public holidays, the Contractor shall comply without additional compensation being considered to meet these requirements.
- E5.4 Regional Streets are listed in the Appendix of the City's Manual of Temporary Traffic Control which is available at http://www.winnipeg.ca/publicworks/Transportation/manual-2008-03-27.pdf
- E5.5 Further to Section 3.8 of CW 1130 of the General Requirements parking restriction signing on Regional Streets will be done by The City of Winnipeg, Traffic Services Branch.
- E5.6 The Contractor will be responsible for parking restriction signing required to perform the Work on non-regional and local residential streets. "No Parking" signs will be provided for the Contractor's use.
- E5.7 Erect signs no sooner than 24 hours before the Work commences at a particular location.
- E5.8 Record the license plate numbers of vehicles already parked within the limits where the parking restriction signs are placed and fax the information to Winnipeg Police Services, Traffic Branch at 986-6998.
- E5.9 Promptly remove parking restriction signs once the Work at that location is completed. Signs shall not be left in place over a weekend if no Work will be done at that location.
- E5.10 Return signs immediately upon completion of the Work.
- E5.11 Further to Section 3.6 of CW 1130 of the General Requirements, maintain safe pedestrian crossing at intersections at all times. Only one pedestrian crossing at an intersection is to be blocked at any one time. If more than one pedestrian crossing is blocked at an intersection at the same time the Contractor shall provide flag persons to safely escort pedestrians across the intersection.
- E5.12 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.
- E5.13 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.

E6. DAMAGE TO CITY AND PRIVATE PROPERTY

- E6.1 All damage to City and private property caused by 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.
- E6.2 Repairs to private property shall be undertaken only by vetted crews, where the Contract Administrator has received and accepted their Criminal Record Search for each individual.
- E6.3 Notify the Contract Administrator immediately when damage to property occurs.
- E6.4 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.

- E6.5 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
- E6.6 The Contractor shall provide the Contract Administrator with a 24-hour contact number to arrange for immediate repair of private property.

E7. PROJECT DELIVERABLES

- E7.1 The Contractor shall submit a formal Inspection Report, in paper and digital (PDF) formats, that summarizes all inspection activities and includes all inspection data in their raw format, along with any software required to view or utilize the raw data.
- E7.2 The Multi-Sensor Inspection Report shall include the following information:
- E7.2.1 CCTV Inspection:
 - (a) Provision of CCTV electronic DVD video with associated coding and report submissions in accordance with CW 2145, amended and supplemented with E3.1.
- E7.2.2 LASER Scanning inspection:
 - (a) Summaries of pipe corrosion and debris build-up, presented as unrolled colour-coded full-circumference graphical illustrations of pipe condition, over the length of the sewer inspected. Where the presence of fluids in the pipe necessitates interpolation to complete the full circumference view, the method and calculations used to support these assumptions shall be presented.
 - (b) Cross-sectional scans, taken at regular intervals along the inspected sewer segment, showing measured pipe cross section superimposed over as-built pipe cross section, and colour highlighted to identify all areas of apparent cross-section loss and gain.
 - (c) Summaries of pipe ovality and deflection, including:
 - (i) Vertical AND horizontal diameter plots of individual diameter measurements versus pipe length, for each section of sewer inspected.
 - (ii) Ovality plots depicting percent deviation from as-built records.
 - (d) LASER data as VRML (Virtual Reality Modeling Language) 3D computer graphic representations, in WRL format, with software viewer that can be used to display and interpret the LASER data.
- E7.2.3 SONAR Scanning inspection:
 - (a) Graphical summaries of sediment thickness and cumulative sediment volumes in the trough of the pipe below the water line versus pipe location, and pipe capacity depicting actual versus original theoretical storage capacity.
 - (b) Statistical average, minimum, and maximum values of sediment accumulation along the sewer, where appropriate, as determined by calculating the portion of the pipe obstructed by sediment and presented as a percentage of the pipe area.
 - (c) Video file of SONAR data in AVI file format.
- E7.3 All deliverables shall be submitted to the Contract Administrator no later than 60 days from completion of sewer inspection activities.

E8. PROJECT INFORMATION SHARING

- E8.1 Project information sharing will be done using Microsoft SharePoint, 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.
- E8.2 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; Daily Reports, Weekly

- Reports, Progress Payments, Meeting Minutes, Schedule, Construction Progress, Alerts, Site Trouble Spots, Complaints Reporting, Urgent Repair Requirements, Incomplete Inspection Records, GIS Errors and GIS Error Merged Assets, Water Infiltration Notification etc.
- E8.3 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.

E9. MANHOLE, PUMP STATION AND CONTROL STRUCTURES WITH LIMITED ACCESS

- E9.1 Manholes, Pump Stations and Control Structures will be the point of access to the Sewer and Outfall Inventory that will have different degrees of access issues, ranging from no vehicular access to full vehicular access. In addition, some structures 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 or pump station that is in operation).
- E9.1.1 While the City of Winnipeg has right of entry to all locations along the Sewer and Outfall 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.
- E9.1.2 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.
- E9.1.3 Access to Outfall pipes will be gained via the upstream control structure, manhole or catch basin. Fifteen (15) Outfalls have been identified (see Appendix B) to adjoin directly to pump stations where:
 - (a) One (1) of the Outfall locations may be accessed via manholes downstream of the pump stations.
 - (b) The remaining fourteen (14) sites do not exhibit external manholes downstream of the pump station. City Operations Staff will be available to provide access to pump stations.
 - (c) Where access through the pump station is not feasible and subject to approval by the Contract Administrator, E3.3(b) shall apply.
- E9.2 Manholes associated with the Outfall and Sewer Inspection Work Program, labelled as having Limited Access include but are not limited to the following:

Table E1: Limited Access to the Outfall Inspection Work Program

Drawing Number	Asset Number	Diameter	Location	Issue(s) associated with access
264	S-MA70021246	900	480 ST JAMES ST	No US Manhole, PS Access Required
32	S-MA70043042	2550	1 HART AVE	No US Manhole, PS Access Required
168	S-MA60012037	1675	905 COCKBURN ST S	No US Manhole, PS Access Required
307	S-MA20014505	1800	GRANITE WAY	No US Manhole, PS Access Required
312	S-MA70016043	1200	60 MAIN ST	No US Manhole, PS Access Required
319	S-MA70021229	1500	GALT AV & DUNCAN ST	No US Manhole, PS Access Required
178	S-MA70004387	1600	105 MAYFAIR AVE	No US Manhole, PS Access Required
117	S-MA70007510	1660	5 MAGER DR	No US Manhole, PS Access Required
118	S-MA70018393	1660	5 MAGER DR	No US Manhole, PS Access Required
330	S-MA00017967	1800	79 SCOTIA ST	No US Manhole, PS Access Required
330	S-MA70016460	1750x2175	79 SCOTIA ST	No US Manhole, PS Access Required

Drawing Number	Asset Number	Diameter	Location	Issue(s) associated with access
325	S-MA70007427	1980	108 SELKIRK AVE	No US Manhole, PS Access Required
117	S-MA70016174	2130	413 MULVEY AVE E	No US Manhole, PS Access Required
296	S-MA70008731	2550	1254 WOLSELEY AVE	No US Manhole, PS Access Required
136	S-MA70053500	1400	27 RIVERGATE DR	Private Land Access Required
341	S-MA00000120	1800	82 SUMMERVIEW LN	Private Land Access Required
19	S-MA40000284	1350	2075 HENDERSON HWY	Private Land Access Required
137	S-MA70074230	900	99 MARINE DR	Private Land Access Required
69	S-MA70097441	1000	130 CREEK BEND RD	Private Land Access Required
70	S-MA70003819	1630x1120	1139 ST ANNE'S RD UNIT 24	Private Land Access Required
71	S-MA50007688	1600	805 ST ANNE'S RD	Private Land Access Required
74	S-MA70011100	1200	631 ST ANNE'S RD	Private Land Access Required
77	S-MA50018093	1200	43 RICHFIELD AVE	Private Land Access Required
85	S-MA50012073	525	45 CLAYTON DR	Private Land Access Required
87	S-MA70011102	600	75A MORROW AVE	Private Land Access Required
90	S-MA50015374	750	303 EGERTON RD	Private Land Access Required
135	S-MA50010420	2250	23 RIVERGATE DR	Private Land Access Required
146	S-MA60023328	300	45 AV DE LA DIGUE	Private Land Access Required
159	S-MA70007648	1800	1002 RIVIERA CRES	Private Land Access Required
162	S-MA70032551	900	758 SOUTH DR	Private Land Access Required
162	S-MA70069303	900	758 SOUTH DR	Private Land Access Required
175	S-MA70032731	300	377 BRANDON AVE	Private Land Access Required
194	S-MA60003648	750	3087 VIALOUX DR	Private Land Access Required
194	S-MA60003875	750	3087 VIALOUX DR	Private Land Access Required
201	S-MA60003371	2590	4585 ROBLIN BLVD	Private Land Access Required
203	S-MA70030182	600	4901 ROBLIN BLVD	Private Land Access Required
205	S-MA70041297	450	23 HARTLAND COVE	Private Land Access Required
206	S-MA70041572	1950	23 HARTLAND COVE	Private Land Access Required
207	S-MA60003296	600x900	81 LANNOO DR	Private Land Access Required
210	S-MA60001604	600	6399 SOUTHBOINE DR	Private Land Access Required
226	S-MA70019662	1200x900	2782 ASSINIBOINE AVE	Private Land Access Required
228	S-MA70008562	750	600 SETTER ST	Private Land Access Required
229	S-MA20003809	600	175 GREENWAY CRES W	Private Land Access Required
253	S-MA20005373	750	2464 ASSINIBOINE CRES	Private Land Access Required
254	S-MA70011382	2200	2450 ASSINIBOINE CRES	Private Land Access Required
255	S-MA70053788	1350	2398 PORTAGE AVE	Private Land Access Required
260	S-MA20008519	300	83 DOUGLAS PARK RD	Private Land Access Required
262	S-MA20008800	750	1752 ASSINIBOINE AVE	Private Land Access Required
262	S-MA70019337	675	1752 ASSINIBOINE AVE	Private Land Access Required
309	S-MA20014087	675	356 ASSINIBOINE AVE	Private Land Access Required

Drawing Number	Asset Number	Diameter	Location	Issue(s) associated with access		
204	S-MA60003299	450	23 HARTLAND COVE	Private Land Access Required		
10	S-MA40001432	1350	44 BRAHMS BAY	Parks & Recreation Land		
9	S-MA70031499	1200	47 UXBRIDGE RD N	Parks & Recreation Land		
66	S-MA70007543	450	220 ORCHARD HILL DR	Parks & Recreation Land		
67	S-MA70082045	1000	850 JOHN BRUCE RD E UNIT 9	Parks & Recreation Land		
105	S-MA70017688	600	745 TACHE AVE	Parks & Recreation Land		
138	S-MA70016115	1800	ST MARY'S RD & PERIMETER 100 HWY	Parks & Recreation Land		
179	S-MA60020193	2400	1 ROSLYN RD	Parks & Recreation Land		
239	S-MA20002435	525	183 HAMILTON AVE	Parks & Recreation Land		
263	S-MA20008967	2340	125 PARKSIDE DR	Parks & Recreation Land		
334	S-MA00017633	2700	479 SCOTIA ST	Parks & Recreation Land		
For any ques	For any questions regarding limited access manholes, please contact AECOM.					

E9.3 Any costs associated with establishing access to manholes, control structures or pump stations (both limited access points and others), including any permits or fees associated with acquiring access, shall be the responsibility of the Contractor and will be included, measured and paid for within the Contract Unit Price for "Access and Insertion" for each Outfall location.

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 Criminal Record Search Certificate from the police service having jurisdiction at his/her place of residence. Or
 - (a) BackCheck, forms to be completed can be found on the website at: http://www.backcheck.net/; or
 - (b) Commissionaires (Manitoba Division), forms to be completed can be found on the website at: https://www.commissionaires.ca/en/manitoba/home .
- F1.2 Prior to the award of Contact, and during the term of the Contract if additional or replacement individuals are proposed to perform Work, the Contractor shall supply the Contract Administrator with a Criminal Record Search Certificate 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.
- F1.3 Any individual for whom a Criminal Record Search Certificate is not provided, or for whom a Criminal Record Search Certificate 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.
- F1.4 Any Criminal Record Search Certificate obtained thereby will be deemed valid for the duration of the Contract subject to a repeated records search as hereinafter specified.
- F1.5 Notwithstanding the foregoing, at any time during the term of the Contract, the City may, at its sole discretion and acting reasonably, require an updated criminal records search. Any individual who fails to provide a satisfactory Criminal Record Search Certificate as a result of a repeated criminal records search will not be permitted to continue to perform any Work specified in F1.1.