



**THE CITY OF WINNIPEG**

# **BID OPPORTUNITY**

**BID OPPORTUNITY NO. 774-2011**

**MAGER DRIVE FLOOD AND WASTEWATER PUMPING STATION UPGRADES**

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## **PART B - BIDDING PROCEDURES**

### **B1. CONTRACT TITLE**

B1.1 MAGER DRIVE FLOOD AND WASTEWATER PUMPING STATION UPGRADES

### **B2. SUBMISSION DEADLINE**

B2.1 The Submission Deadline is 4:00 p.m. Winnipeg time, December 21, 2011.

B2.2 Bids determined by the Manager of Materials to have been received later than the Submission Deadline will not be accepted and will be returned upon request.

B2.3 The Contract Administrator or the Manager of Materials may extend the Submission Deadline by issuing an addendum at any time prior to the time and date specified in B2.1.

### **B3. SITE INVESTIGATION**

B3.1 Further to C3.1, the Contract Administrator or an authorized representative will be available at the Site at 9:30 am on December 2, 2011 to provide Bidders access to the Site.

(a) Bidders must wear CSA approved safety footwear and a hard hat while in the flood and wastewater pumping stations.

B3.2 The Bidder shall not be entitled to rely on any information or interpretation received at the Site investigation unless that information or interpretation is the Bidder's direct observation, or is provided by the Contract Administrator in writing.

### **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 notify the Contract Administrator of the error, discrepancy or omission, or request a clarification as to the meaning or intent of the provision at least five (5) Business Days prior to the Submission Deadline.

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

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

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

### **B5. ADDENDA**

B5.1 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.

B5.2 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.

- B5.2.1 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>
- B5.2.2 The Bidder is responsible for ensuring that he 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.
- B5.2.3 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.

## **B6. SUBSTITUTES**

- B6.1 The Work is based on the Plant, Materials and methods specified in the Bid Opportunity.
- B6.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.
- B6.3 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.
- B6.4 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.
- B6.5 The Contract Administrator, after assessing the request for approval of a substitute, may in his 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.
- B6.6 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, only to the Bidder who requested approval of the substitute.
- B6.6.1 The Bidder requesting and obtaining the approval of a substitute shall be entirely responsible for disseminating information regarding the approval to any person or persons he wishes to inform.
- B6.7 If the Contract Administrator approves a substitute as an “approved equal”, any Bidder may use the approved equal in place of the specified item.
- B6.8 If the Contract Administrator approves a substitute as an “approved alternative”, any Bidder bidding that approved alternative may base his 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 B14.

- B6.9 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.
- B6.10 Notwithstanding B6.2 to B6.9, and in accordance with B7.7, deviations inconsistent with the Bid Opportunity document shall be evaluated in accordance with B14.1(a).

**B7. BID COMPONENTS**

- B7.1 The Bid shall consist of the following components:
- (a) Form A: Bid;
  - (b) Form B: Prices;
- B7.2 Further to B7.1, the Bidder should include the written correspondence from the Contract Administrator approving a substitute in accordance with B6.
- B7.3 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, to constitute a responsive Bid.
- B7.4 The Bid Submission may be submitted by mail, courier or personal delivery, or by facsimile transmission.
- B7.5 If the Bid Submission 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
- B7.5.1 Samples or other components of the Bid Submission 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.
- B7.6 Bidders are advised not to include any information/literature except as requested in accordance with B7.1.
- B7.7 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 B14.1(a).
- B7.8 If the Bid Submission is submitted by facsimile transmission, it shall be submitted to (204) 949-1178.
- B7.8.1 The Bidder is advised that the City cannot take responsibility for the availability of the facsimile machine at any time.
- B7.8.2 Bids submitted by internet electronic mail (e-mail) will not be accepted.

**B8. BID**

- B8.1 The Bidder shall complete Form A: Bid, making all required entries.
- B8.2 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 own name, his 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 own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.

B8.2.1 If a Bid is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B8.2.

B8.3 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.

B8.4 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 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 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.

B8.4.1 The name and official capacity of all individuals signing Form A: Bid should be printed below such signatures.

B8.4.2 All signatures shall be original.

B8.5 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.

## **B9. PRICES**

B9.1 The Bidder shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.

B9.1.1 Notwithstanding C12.2.3(c), prices on Form B: Prices shall not include the Manitoba Retail Sales Tax (MRST, also known as PST), which shall be extra where applicable.

B9.2 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.

B9.3 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.

B9.4 Payments to Non-Resident Contractors are subject to Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).

## **B10. QUALIFICATION**

B10.1 The Bidder shall:

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

- B10.2 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>
- B10.3 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);
- B10.4 Further to B10.3(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/Subcontractors has a workplace safety and health program meeting the requirements of The Workplace Safety and Health Act (Manitoba), by providing:
- (a) a valid COR certification number under the Certificate of Recognition (COR) Program administered by the Manitoba Construction Safety Association or by the Manitoba Heavy Construction Association's Safety, Health and Environment Program; or
  - (b) a report or letter to that effect from an independent reviewer acceptable to the City. (A list of acceptable reviewers and the review template are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>).
- B10.5 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.
- B10.6 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.

## **B11. OPENING OF BIDS AND RELEASE OF INFORMATION**

- B11.1 Bids will not be opened publicly.
- B11.2 Following the submission deadline, the names of the Bidders and their Total Bid Prices (unevaluated, and pending review and verification of conformance with requirements) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/bidopp.asp>
- B11.3 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/>
- B11.4 The Bidder is advised that any information contained in any Bid may be released if required by City policy or procedures, by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law.



## **B12. IRREVOCABLE BID**

- B12.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 9 of Form A: Bid.
- B12.2 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.

## **B13. WITHDRAWAL OF BIDS**

- B13.1 A Bidder may withdraw his Bid without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.
- B13.1.1 Notwithstanding C23.3, the time and date of receipt of any notice withdrawing a Bid shall be the time and date of receipt as determined by the Manager of Materials.
- B13.1.2 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.
- B13.1.3 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 B13.1.3(b), declare the Bid withdrawn.
- B13.2 A Bidder who withdraws his Bid after the Submission Deadline but before his Bid has been released or has lapsed as provided for in B12.2 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.

## **B14. EVALUATION OF BIDS**

- B14.1 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 there from (pass/fail);
  - (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B10 (pass/fail);
  - (c) Total Bid Price;
  - (d) economic analysis of any approved alternative pursuant to B6.
- B14.2 Further to B14.1(a), the Award Authority may reject a Bid as being non-responsive if the Bid is incomplete, obscure or conditional, or contains additions, deletions, alterations or other irregularities. The Award Authority may reject all or any part of any Bid, or waive technical requirements or minor informalities or irregularities, if the interests of the City so require.
- B14.3 Further to B14.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in his Bid or in other information required to be submitted, that he is responsible and qualified.
- B14.4 Further to B14.1(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.
- B14.4.1 If there is any discrepancy between the Total Bid Price written in figures, the Total Bid Price written in words and the sum of the quantities multiplied by the unit prices for each

item, the sum of the quantities multiplied by the unit prices for each item shall take precedence.

B14.4.2 Further to B14.1(a), in the event that a unit price is not provided on Form B: Prices, the City will determine the unit price by dividing the Amount (extended price) by the approximate quantity, for the purposes of evaluation and payment.

## **B15. AWARD OF CONTRACT**

B15.1 The City will give notice of the award of the Contract or will give notice that no award will be made.

B15.2 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.

B15.2.1 Without limiting the generality of B15.2, 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.

B15.3 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 B14.

B15.3.1 Following the award of contract, a Bidder will be provided with information related to the evaluation of his Bid upon written request to the Contract Administrator.

B15.4 Notwithstanding C4, the City will issue a Purchase Order to the successful Bidder in lieu of the execution of a Contract.

B15.5 The Contract, as defined in C1.1, in its entirety shall be deemed to be incorporated in and to form a part of the Purchase Order notwithstanding that it is not necessarily attached to or accompany said Purchase Order.

## PART C - GENERAL CONDITIONS

### C0. GENERAL CONDITIONS

- C0.1 The *General Conditions for Construction* (Revision 2006 12 15) are applicable to the Work of the Contract.
- C0.1.1 The *General Conditions for Construction* are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at [http://www.winnipeg.ca/matmgt/gen\\_cond.stm](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 Construction*.

## PART D - SUPPLEMENTAL CONDITIONS

### GENERAL

#### D1. GENERAL CONDITIONS

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

#### D2. SCOPE OF WORK

D2.1 The Work to be done under the Contract shall consist of electrical and building restoration work for the Mager Drive Flood and Wastewater Pumping Stations.

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

- (a) Pouring of a new concrete slab and housekeeping pad within the Flood Station electrical room.
- (b) Removal of the existing man door, and installation of a new man door in the Flood Station electrical room.
- (c) Removal of existing double door in the Flood Station electrical room and infilling opening.
- (d) Installation of studs, insulation, vapour barrier, and sheet on the interior of the Flood Station electrical room.
- (e) Installation of HVAC equipment within the Flood Station electrical room.
- (f) Removal of existing electrical equipment within the Flood Station.
- (g) Installation of new direct buried feeder cables between the CSTE and the Flood Station.
- (h) Installation of new direct buried feeder cables between the Flood Station and Wastewater Pumping station.
- (i) Installation of new 600V and 120/208V electrical distribution equipment, including a motor control centre.
- (j) Rewiring of existing 600V and 120/208V loads.
- (k) Removal of existing louvers within the Flood Station electrical room.
- (l) Demolition and repair of selected areas of the driveway to allow for cable and conduit installation.

#### D3. DEFINITIONS

D3.1 When used in this Bid Opportunity:

- (a) "**CSTE**" means Customer Service Termination Enclosure.;
- (b) "**HVAC**" means Heating, Ventilation, and Air Conditioning.;
- (c) "**MCC**" means Motor Control Centre;
- (d) "**RTU**" means Remote Terminal Unit.
- (e) "**Lift Station**" means Mager Drive Wastewater Pumping Station.
- (f) "**Flood Station**" means Mager Drive Flood Pumping Station.

#### D4. CONTRACT ADMINISTRATOR

D4.1 The Contract Administrator is SNC-Lavalin Inc., represented by:

Charles Cong  
Project and Construction Services  
SNC-Lavalin Inc.

148 Nature Park Way, Winnipeg, MB, R3P 0X7

Telephone No. (204) 786-8080

Facsimile No. (204) 786-7934

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

**D5. CONTRACTOR'S SUPERVISOR**

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

**D6. NOTICES**

- D6.1 Except as provided for in C23.2.2, all notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the Contractor shall be sent to the address or facsimile number identified by the Contractor in Paragraph 2 of Form A: Bid.
- D6.2 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the City, except as expressly otherwise required in D6.3, D6.4 or elsewhere in the Contract, shall be sent to the attention of the Contract Administrator at the address or facsimile number identified in D4.1.
- D6.3 Notwithstanding C21., all notices of appeal to the Chief Administrative Officer shall be sent to the attention of the Chief Financial Officer at the following facsimile number:  
The City of Winnipeg  
Chief Financial Officer  
Facsimile No.: (204) 949-1174
- D6.4 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications required to be submitted or returned to the City Solicitor shall be sent to the following address or facsimile number:  
The City of Winnipeg  
Legal Services Department  
Attn: Director of Legal Services  
185 King Street, 3rd Floor  
Winnipeg MB R3B 1J1  
Facsimile No.: (204) 947-9155

**SUBMISSIONS**

**D7. AUTHORITY TO CARRY ON BUSINESS**

- D7.1 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.

**D8. SAFE WORK PLAN**

- D8.1 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.

D8.2 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>

## **D9. INSURANCE**

D9.1 The Contractor shall provide and maintain the following insurance coverage:

- (a) commercial general liability insurance, in the amount of at least two million dollars (\$2,000,000.00) inclusive, with The City of Winnipeg added as an additional insured, with a cross-liability clause, such liability policy to also contain contractual liability, unlicensed motor vehicle liability, non-owned automobile liability and products and completed operations, to remain in place at all times during the performance of the Work and throughout the warranty period;
- (b) automobile liability insurance for owned automobiles used for or in connection with the Work in the amount of at least two million dollars (\$2,000,000.00) at all times during the performance of the Work and until the date of Total Performance;
- (c) all risks installation floater, carrying adequate limits to cover all machinery, equipment, supplies and/or materials intended to enter into and form part of any installation.

D9.2 Deductibles shall be borne by the Contractor.

D9.3 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 but in no event later than seven (7) Calendar Days from notification of the award of Contract by Purchase Order.

D9.4 The Contractor shall not cancel, materially alter, or cause each policy to lapse without providing at least thirty (30) Calendar Days prior written notice to the Contract Administrator.

## **D10. PERFORMANCE SECURITY**

D10.1 If the Contract Price exceeds twenty-five thousand dollars (\$25,000.00), the Contractor shall provide and maintain performance security until the expiration of the warranty period in the form of:

- (a) a performance bond of a company registered to conduct the business of a surety in Manitoba, in the form attached to these Supplemental Conditions (Form H1: Performance Bond), in the amount of fifty percent (50%) of the Contract Price; or
- (b) an irrevocable standby letter of credit issued by a bank or other financial institution registered to conduct business in Manitoba and drawn on a branch located in Winnipeg, in the form attached to these Supplemental Conditions (Form H2: Irrevocable Standby Letter of Credit), in the amount of fifty percent (50%) of the Contract Price; or
- (c) a certified cheque or draft payable to "The City of Winnipeg", drawn on a bank or other financial institution registered to conduct business in Manitoba, in the amount of fifty percent (50%) of the Contract Price.

D10.1.1 Where the performance security is in the form of a certified cheque or draft, it will be deposited by the City. The City will not pay any interest on certified cheques or drafts furnished as performance security.

D10.2 The Contractor shall provide the City Solicitor with the required performance security within seven (7) Calendar Days of notification of the award of the Contract by way of Purchase Order and prior to the commencement of any Work on the Site

## **SCHEDULE OF WORK**

### **D11. COMMENCEMENT**

- D11.1 The Contractor shall not commence any Work until he is in receipt of a Purchase Order from the Award Authority authorizing the commencement of the Work.
- D11.2 The Contractor shall not commence any Work on the Site until:
- (a) the Contract Administrator has confirmed receipt and approval of:
    - (i) evidence of authority to carry on business specified in D7;
    - (ii) evidence of the workers compensation coverage specified in C6.15;
    - (iii) the Safe Work Plan specified in D8;
    - (iv) evidence of the insurance specified in D9; and
    - (v) the performance security specified in D10.
  - (b) the Contractor has attended a pre-construction meeting with the Contract Administrator, or the Contract Administrator has waived the requirement for a pre-construction meeting.
- D11.3 The Contractor shall commence the Work on the Site within seven (7) Working Days of receipt of the Purchase Order.
- D11.4 The City intends to award this Contract by January 31, 2012.
- D11.4.1 If the actual date of award is later than the intended date, the dates specified for Critical Stages, Substantial Performance, and Total Performance will be adjusted by the difference between the aforementioned intended and actual dates.

### **D12. SUBSTANTIAL PERFORMANCE**

- D12.1 The Contractor shall achieve Substantial Performance by August 10, 2012.
- D12.2 When the Contractor considers the Work to be substantially performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Substantial Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be reinspected.
- D12.3 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.
- D12.4 The specified Substantial Performance date is based upon the river elevation dropping below the flood pumping station activation level by May 31, 2012. In the event that the river elevation remains high past this date, the required Substantial Performance date would be revised accordingly.

### **D13. TOTAL PERFORMANCE**

- D13.1 The Contractor shall achieve Total Performance by September 10, 2012.
- D13.2 When the Contractor or the Contract Administrator considers the Work to be totally performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Total Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be reinspected.
- D13.3 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.

D13.4 The specified Total Performance date is based upon the river elevation dropping below the flood pumping station activation level by May 31, 2012. In the event that the river elevation remains high past this date, the required Substantial Performance date would be revised accordingly.

#### **D14. LIQUIDATED DAMAGES**

D14.1 If the Contractor fails to achieve Critical Stages, Substantial Performance or Total Performance in accordance with the Contract by the days fixed herein for same, the Contractor shall pay the City the following amounts per Working Day for each and every Working Day following the days fixed herein for same during which such failure continues:

- (a) Substantial Performance – five hundred dollars (\$500);
- (b) Total Performance – one hundred dollars (\$100).

D14.2 The amounts specified for liquidated damages in D14.1 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.

D14.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

#### **CONTROL OF WORK**

##### **D15. JOB MEETINGS**

D15.1 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.

D15.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he deems it necessary.

##### **D16. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)**

D16.1 Further to C6.24, the Contractor shall be the Prime Contractor and shall serve as, and have the duties of the Prime Contractor in accordance with The Workplace Safety and Health Act (Manitoba).

#### **MEASUREMENT AND PAYMENT**

##### **D17. PAYMENT**

D17.1 Further to C12, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

##### **D18. PAYMENT SCHEDULE**

D18.1 Further to C12, payment shall be in accordance with the following payment schedule:

- (a) A maximum of 95% of Form B, Items 1-4 may be submitted for progress payments prior to total completion of the associated services, including the provision of as-built drawing mark-ups and O&M manuals.



D18.2 The holdbacks identified above are prior to, and do not include, additional holdbacks as required by the Builder's Liens Act.

## **WARRANTY**

### **D19. WARRANTY**

D19.1 Warranty is as stated in C13.

**FORM H1: PERFORMANCE BOND**  
(See D10)

KNOW ALL MEN BY THESE PRESENTS THAT

\_\_\_\_\_ ,  
(hereinafter called the "Principal"), and

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

\_\_\_\_\_ dollars (\$\_\_\_\_\_)

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

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

BID OPPORTUNITY NO. 774-2011

MAGER DRIVE FLOOD AND WASTEWATER PUMPING STATION UPGRADES

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

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

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

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

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

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

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

**SIGNED AND SEALED**  
in the presence of:

\_\_\_\_\_  
(Witness as to Principal if no seal)

\_\_\_\_\_  
(Name of Principal)

Per: \_\_\_\_\_ (Seal)

Per: \_\_\_\_\_

\_\_\_\_\_  
(Name of Surety)

By: \_\_\_\_\_ (Seal)  
(Attorney-in-Fact)

**FORM H2: IRREVOCABLE STANDBY LETTER OF CREDIT  
(PERFORMANCE SECURITY)**  
(See D10)

\_\_\_\_\_  
(Date)

The City of Winnipeg  
Legal Services Department  
185 King Street, 3rd Floor  
Winnipeg MB R3B 1J1

RE: PERFORMANCE SECURITY - BID OPPORTUNITY NO. 774-2011

MAGER DRIVE FLOOD AND WASTEWATER PUMPING STATION UPGRADES

Pursuant to the request of and for the account of our customer,

\_\_\_\_\_  
(Name of Contractor)

\_\_\_\_\_  
(Address of Contractor)

WE HEREBY ESTABLISH in your favour our irrevocable Standby Letter of Credit for a sum not exceeding in the aggregate

\_\_\_\_\_ Canadian dollars.

This Standby Letter of Credit may be drawn on by you at any time and from time to time upon written demand for payment made upon us by you. It is understood that we are obligated under this Standby Letter of Credit for the payment of monies only and we hereby agree that we shall honour your demand for payment without inquiring whether you have a right as between yourself and our customer to make such demand and without recognizing any claim of our customer or objection by the customer to payment by us.

The amount of this Standby Letter of Credit may be reduced from time to time only by amounts drawn upon it by you or by formal notice in writing given to us by you if you desire such reduction or are willing that it be made.

Partial drawings are permitted.

We engage with you that all demands for payment made within the terms and currency of this Standby Letter of Credit will be duly honoured if presented to us at:

\_\_\_\_\_  
(Address)

and we confirm and hereby undertake to ensure that all demands for payment will be duly honoured by us.

All demands for payment shall specifically state that they are drawn under this Standby Letter of Credit.

Subject to the condition hereinafter set forth, this Standby Letter of Credit will expire on

\_\_\_\_\_  
(Date)

It is a condition of this Standby Letter of Credit that it shall be deemed to be automatically extended from year to year without amendment from the present or any future expiry date, unless at least 30 days prior to the present or any future expiry date, we notify you in writing that we elect not to consider this Standby Letter of Credit to be renewable for any additional period.

This Standby Letter of Credit may not be revoked or amended without your prior written approval.

This credit is subject to the Uniform Customs and Practice for Documentary Credit (1993 Revision), International Chamber of Commerce Publication Number 500.

\_\_\_\_\_  
(Name of bank or financial institution)

Per: \_\_\_\_\_  
(Authorized Signing Officer)

Per: \_\_\_\_\_  
(Authorized Signing Officer)

## 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:

<u>Specification No.</u>	<u>Specification Title</u>
01 33 00	SUBMITTAL PROCEDURES
01 45 00	QUALITY CONTROL
01 52 00	CONSTRUCTION FACILITIES
01 56 00	TEMPORARY BARRIERS AND ENCLOSURES
01 61 00	COMMON PRODUCT REQUIREMENTS
01 73 03	EXECUTION REQUIREMENTS
01 74 11	CLEANING
01 78 00	CLOSEOUT SUBMITTALS
03 05 10	CAST-IN-PLACE CONCRETE
03 20 00	CONCRETE REINFORCING
06 10 11	ROUGH CARPENTRY
07 12 13	BOARD INSULATION
07 21 16	BLANKET INSULATION
07 24 11	EXTERIOR FINISH – DIRECT APPLIED
07 26 00	VAPOUR RETARDERS
07 92 10	JOINT SEALING
08 11 14	METAL DOORS AND FRAMES
09 91 23	INTERIOR PAINTING
10 44 20	FIRE EXTINGUISHERS
23 05 00	COMMON WORK RESULTS FOR HVAC
23 05 13	COMMON MOTOR REQUIREMENTS FOR HVAC EQUIPMENT
23 05 93	TESTING, ADJUSTING AND BALANCING FOR HVAC
23 07 13	DUCT INSULATION
23 31 14	METAL DUCTS – LOW PRESSURE TO 500 PA
23 33 00	AIR DUCTS ACCESSORIES
23 33 15	DAMPERS – OPERATING
23 34 00	HVAC FANS
23 37 13	DIFFUSERS, REGISTERS, AND GRILLES
23 37 20	LOUVERS, INTAKES, AND VENTS
23 41 00	PARTICULATE AIR FILTRATION
23 55 01	DUCT HEATERS
26 05 01	COMMON WORK RESULTS - ELECTRICAL
26 05 21	WIRES AND CABLES (0-1000 V)
26 05 28	GROUNDING - SECONDARY
26 05 29	HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS
26 05 31	SPLITTERS, JUNCTION, PULL BOXES AND CABINETS
26 05 32	OUTLET BOXES, CONDUIT BOXES AND FITTINGS

26 05 34	CONDUITS, CONDUIT FASTENINGS AND FITTINGS
26 05 44	INSTALLATION OF CABLES IN TRENCHES AND IN DUCTS
26 08 05	ACCEPTANCE TESTING
26 12 17	DRY TYPE TRANSFORMERS UP TO 600 V PRIMARY
26 24 17	PANELBOARDS BREAKER TYPE
26 24 19	MOTOR CONTROL CENTRES
26 27 26	WIRING DEVICES
26 28 21	MOULDED CASE CIRCUIT BREAKERS
26 28 23	DISCONNECT SWITCHES - FUSED AND NON-FUSED
26 29 10	MOTOR STARTERS TO 600 V
26 50 00	LIGHTING
26 52 01	UNIT EQUIPMENT FOR EMERGENCY LIGHTING
31 23 10	EXCAVATING, TRENCHING AND BACKFILLING
40 90 01	AUTOMATION – FIELD PUSHBUTTONS, SWITCHES AND INDICATORS
40 91 00	AUTOMATION – PROCESS MEASUREMENT DEVICES
40 92 00	AUTOMATION – PRIMARY CONTROL DEVICES

<u>Drawing No.</u>	<u>Drawing Name/Title</u>
1-0157A-D0002	COVER PAGE
1-0157A-B0002	MAGER DRIVE PUMPING STATION – CONCRETE PLAN LAYOUT – CABLE ROUTING
1-0157F-B0001	MAGER DRIVE PUMPING STATION – BUILDING PLAN LAYOUT & SECTIONS – ELECTRICAL ROOM
1-0157F-M0001	MAGER FLOOD PUMPING STATION – HVAC PLAN LAYOUT AND SECTION – ELECTRICAL ROOM
1-0157A-E0001	MAGER DRIVE FLOOD AND WASTEWATER PUMPING STATIONS – SINGLE LINE DIAGRAM
1-0157A-E0002	MAGER DRIVE FLOOD AND WASTEWATER PUMPING STATIONS – PANEL LAYOUT – CSTE
1-0157A-E0003	MAGER DRIVE FLOOD AND WASTEWATER PUMPING STATIONS – GROUNDING DETAILS
1-0157A-E0004	MAGER DRIVE FLOOD AND WASTEWATER PUMPING STATIONS – ELECTRICAL DETAILS – CABLE ROUTING
1-0157F-E0001	MAGER DRIVE FLOOD PUMPING STATION – ELECTRICAL AND LIGHTING PLAN – ELECTRICAL ROOM
1-0157F-E0002	MAGER DRIVE FLOOD PUMPING STATION – ELECTRICAL AND LIGHTING PLAN – FLOOD STATION
1-0157F-E0003	MAGER DRIVE FLOOD PUMPING STATION – ELECTRICAL EQUIPMENT ELEVATIONS – MCC-F1
1-0157F-E0004	MAGER DRIVE FLOOD PUMPING STATION – PANEL LAYOUT – JB-F10
1-0157F-E0005	MAGER DRIVE FLOOD PUMPING STATION – ELECTRICAL SCHEDULES
1-0157F-E0006	MAGER DRIVE FLOOD PUMPING STATION – INSTALLATION DETAILS
1-0157F-E0007	MAGER DRIVE FLOOD PUMPING STATION – MOTOR STARTER SCHEMATIC – MS-P-F1 – FLOOD PUMP
1-0157F-E0008	MAGER DRIVE FLOOD PUMPING STATION – CONNECTION DIAGRAM – MS-P-F1 – FLOOD PUMP
1-0157F-E0009	MAGER DRIVE FLOOD PUMPING STATION – MOTOR STARTER SCHEMATIC – MS-P-F2 – FLOOD PUMP
1-0157F-E0010	MAGER DRIVE FLOOD PUMPING STATION – CONNECTION DIAGRAM – MS-P-F2 – FLOOD PUMP
1-0157F-E0011	MAGER DRIVE FLOOD PUMPING STATION – MOTOR STARTER SCHEMATIC – MS-SF-F1 – SUPPLY FAN
1-0157F-E0012	MAGER DRIVE FLOOD PUMPING STATION – MOTOR STARTER SCHEMATIC – MS-EF-F1 – EXHAUST FAN
1-0157F-E0013	MAGER DRIVE FLOOD PUMPING STATION – SCHEMATIC DIAGRAM – 600V POWER METER

1-0157F-E0014	MAGER DRIVE FLOOD PUMPING STATION – SCHEMATIC DIAGRAM – 600V POWER MONITOR
1-0157L-E0001	MAGER DRIVE WASTEWATER PUMPING STATION – 2011 RESTORATION – ELECTRICAL PLAN LAYOUT – MAIN FLOOR
1-0157F-A0001	MAGER DRIVE FLOOD PUMPING STATION – LOOP DIAGRAM – 600V POWER FAIL – LOOP F527
1-0157F-A0002	MAGER DRIVE FLOOD PUMPING STATION – LOOP DIAGRAM – TVSS – LOOP F565
1-0157F-A0003	MAGER DRIVE FLOOD PUMPING STATION – LOOP DIAGRAM – HCE-F1 – LOOP F602
1-0157F-A0004	MAGER DRIVE FLOOD PUMPING STATION – LOOP DIAGRAM – SF-F2 – LOOP F603
1-0157F-A0005	MAGER DRIVE FLOOD PUMPING STATION – LOOP DIAGRAM – HIGH TEMPERATURE/LOW TEMPERATURE – LOOP F604
1-0157F-A0006	MAGER DRIVE FLOOD PUMPING STATION – PANEL LAYOUT – FIELD DEVICE JUNCTION BOXES
1-0157F-A0007	MAGER DRIVE FLOOD PUMPING STATION – AUTOMATION CONDUIT & CABLE RISER DIAGRAM

<u>Filename.</u>	<u>Document Code</u>	<u>Document Name/Title</u>
774-2011_Lamacoid_Schedule.pdf	505581-0002-47EL-0001	Lamacoid Schedule
774-2011_Cable_Schedule.pdf	505581-0002-47EL-0002	Cable Schedule
774-2011_Forms.pdf		Forms

## **E2. HAZARDOUS MATERIALS**

- E2.1 If asbestos or other hazardous materials are encountered during the Work of the Contract, the Contractor shall stop all work and notify the Contract Administrator immediately. Removal of hazardous materials shall be dealt with by the City and the Contractor shall await further instruction by the Contract Administrator.

## **E3. SCOPE OF WORK**

The below scope of work is a general description of the work and does not represent a sequence or listing of activities in any particular order. The Contractor is responsible for performing the work in an appropriate, efficient, and logical manner.

### **E3.1 Structural / Architectural**

- (a) Remove existing double doors and frame.
- (b) Infill double door opening with wood stud framing and sheathing.
- (c) Remove existing single mandoor and frame.
- (d) Remove two existing louvres and frames.
- (e) Completely infill one louvre opening with wood stud framing and sheathing.
- (f) Partially infill one louvre opening with wood and stud framing and sheathing to new louvre opening.
- (g) Install tar paper, metal lathe, and stucco finish on exterior of opening infills. Paint to match existing.
- (h) Install new single mandoor and frame, c/w hardware. Key lockset as directed by the City.
- (i) Insulate ceiling with batt insulation, install vapour barrier, and install plywood ceiling. Paint plywood.
- (j) Install new interior perimeter stud framing, batt insulation, vapour barrier, and plywood wall sheathing. Paint plywood.



- (k) Repair and paint crack in stucco on exterior wall.

### E3.2 Mechanical - HVAC

- (a) Install new supply fan, heater, dampers, and associated components.
- (b) Install new trapped relief and weighted backdraft damper.

### E3.3 Electrical

- (a) Supply and install and temporary electrical provisions as required to complete the work as specified.
- (b) Remove the following existing equipment:
  - (i) Flood Station electrical room lighting and receptacles and associated conduit
  - (ii) Lighting fixture on the front of the Flood Station.
  - (iii) Motor circuit protectors in the Flood Station
  - (iv) Reduced voltage motor starters in the Flood Station
  - (v) 600V Power Fail monitoring panel in the Flood Station
  - (vi) Fusible disconnect switches and motor starter panels in the Flood Station associated with the supply fan and exhaust fan
  - (vii) 600V splitter in the Flood Station
  - (viii) 120/240V Panelboard in the Flood Station
  - (ix) Transformer fusible disconnect switch and all associate cabling in the Flood Station
  - (x) Transformer fusible disconnect switch and all associated cabling in the Lift Station
- (c) Replace the underground feeder junction box on the exterior of the Lift Station building with a larger enclosure.
- (d) Electrical Investigation:
  - (i) It is assumed that a grounding electrode is present and connected to the CSTE. Investigate the location of the grounding electrode, including all ground rods, and mark the location of the ground rods and connecting conductors on the drawings. Dimensions are to be included.
- (e) Supply, install, connect, and test the following:
  - (i) Direct buried feeder cables from the CSTE to the Flood Station electrical room,
  - (ii) Direct buried feeder cables from the Flood Station electrical room to the Lift Station,
  - (iii) 600V, 800A, 3 phase, 3 wire Motor Control Centre (MCC) with integral soft starters,
  - (iv) Motor and load feeder cables,
  - (v) Non-fusible disconnect switches for the flood pumps,
  - (vi) 600-120/208V 30 kVA transformer, XFMR-F10,
  - (vii) 120/208V distribution panel, PNL-F10,
  - (viii) Automation cabling as shown on the drawings,
  - (ix) Lighting and receptacles,
  - (x) Emergency lighting, and
  - (xi) Grounding connections.
- (f) Supply and install the following:
  - (i) Lighting fixtures,
  - (ii) Switches,
  - (iii) Receptacles,
  - (iv) Pull boxes,
  - (v) Junction boxes, and
  - (vi) Conduit.
- (g) CSTE modifications:

- (i) Remove the branch circuit breaker feeding the flood station,
  - (ii) Install new 90°C rated lugs onto the splitter within the CSTE,
  - (iii) Terminate the new direct buried feeder cables to the splitter, and
  - (iv) Replace the deadfront cover or installation of gasketed cover plate overtop of the existing breaker handle opening.
- (h) Supply and install a Plexiglass Drawing Holder as per Section 26 05 01.
- (i) Install arc flash labels supplied by the Contract Administrator.
- (j) Supply of as-built drawing mark-ups and O&M Manuals.
- (k) Test sheets:
- (i) Test sheets will be provided to the Contractor in electronic PDF and Microsoft Word formats.
  - (ii) Test sheets to be completed on site, then transferred to the Microsoft Word copy.
  - (iii) Provide completed test sheets in Microsoft Word format.

**E3.4 Driveway Demolition and Repair:**

- (a) Demolish sections of existing driveway, as shown on the Drawings, to facilitate installation of direct buried feeder cables between:
  - (i) the CSTE and the Flood Station Electrical Room; and
  - (ii) the Flood Station Electrical Room and the Wastewater (Lift) Pumping Station.
- (b) Repair driveway with reinforced concrete following the installation of the cables, treated planks, and backfill.
- (c) Driveway repair to be 150 millimetre as shown on the Drawings and in accordance with CW 3310 and SD-217.

**E4. EQUIPMENT SUPPLIED BY OTHERS**

- E4.1 The Contract Administrator will supply arc flash stickers for the electrical equipment.

**E5. EQUIPMENT AND MATERIALS**

- E5.1 The Contractor shall supply all equipment and materials necessary to execute the work, except for the equipment and material as shown on the Drawings to be re-used.
- E5.2 Existing equipment and materials may be re-used only as specifically indicated in these specifications, as shown on the Drawings or as approved by the Contract Administrator.

**E6. SECURITY**

- E6.1 The Contractor is responsible for all material and equipment stored on the site.

**E7. DANGEROUS WORK CONDITIONS**

- E7.1 Further to clause C 6.26 of the General Conditions, the Contractor shall be aware that underground chambers, manholes, and sewers are considered a confined space and shall follow the "Guidelines for confined Entry Work" as published by the Manitoba Workplace Safety and Health Division.
- E7.2 The Contractor shall be aware of the potential hazards that can be encountered in underground chambers, manholes and sewers such as explosive gases, toxic gases and oxygen deficiency. The Contractor's Safe Work Plan should address these issues.
- E7.3 The air in a confined space must be tested before entry and continuously during the time that personnel are inside the space. Equipment for continuous monitoring of gases must be explosion-proof and equipped with a visible and audible alarm. The principal tests are for

oxygen deficiency, explosion range and toxic gases. Testing equipment must be calibrated in accordance with manufacturer's specifications.

(a) The Contractor is responsible for all testing requirements.

E7.4 The Contractor shall ventilate all confined spaces including underground chambers, tunnels, pipes and shafts as required and approved by the Manitoba Workplace Safety and Health Act (the "Act"). If no ventilation is supplied, a worker must wear a respirator or supplied air to enter the confined space.

(a) It is recommended to sequence the work such that the supply fan is re-installed prior to significant work below grade.

E7.5 The Contractor shall provide a photo-ionization detector (PID) and toxic gas detector on site at all times to monitor potential hydrocarbon vapours and hydrogen sulphide in the confined spaces. The gas detector and safety equipment conforming to the Act shall be made available to the Contract Administrator for his use during inspections.

E7.6 The Contract Administrator may issue a stop work order to the Contractor if the above guidelines are not being followed. The Contractor shall not resume operations until the Contract Administrator is satisfied the Contractor is following the appropriate procedures. The Contractor shall have no claim for extra time or costs due to the stop work order for not following these safety guidelines.

## **E8. WATERWAY BY-LAW**

E8.1 The Contractor shall note that all Works within 107 metres (350 feet) of a riverbank are within the jurisdiction of the Waterway By-Law. The City of Winnipeg, Water and Waste Department, will apply and pay for any Waterway Permits for the project, as required. The Contractor shall adhere to restrictions imposed on the permit.

E8.2 Under no circumstances will stockpiling of any material be permitted within 107 metres of a riverbank or dike.

(a) The Contractor is responsible for removing excavated materials from the Site immediately.

(b) The Contractor is responsible for utilizing and placing any backfill brought to the Site immediately.

## **E9. TEMPORARY USE OF CITY EQUIPMENT**

E9.1 City facilities, systems and equipment shall not be used during construction without the Contract Administrator's written permission. The Contract Administrator reserves the right to withdraw said permission if, in his opinion, proper care and maintenance are not provided.

## **E10. DRIVEWAY CONSTRUCTION**

E10.1 The driveway area in front of the pumping station is to be completed within two weeks of demolition.

E10.2 Maintain accessibility to the pumping station continuously during construction. Provide walkways and covers over the trench works as required to provide safe access.

## **E11. PUMPING STATION OPERATION DURING CONSTRUCTION**

E11.1 The Mager Drive Wastewater (Lift) Pumping Station is critical to the transport of wastewater for the City of Winnipeg. Under no condition shall the station pumping be shut down without prior permission of the Contract Administrator.

E11.2 The Mager Drive Flood Pumping Station is critical to ensure that the sewer system is not overloaded during high river levels. It will be acceptable to take the Flood Pumping Station out

of service during low river levels. The City reserves the right to activate the station at any time as conditions may require.

E11.3 The Contractor is advised that the existing Mager Drive Wastewater Pumping Station will be allowed to be taken out of operation only after the Contractor's schedule of activities and provisions for temporary operations to complete the Work are approved by the Contract Administrator. The Contractor shall plan his construction activities to allow for the minimum amount of disruption time to normal operating status of the stations.

E11.4 The Contractor shall cooperate with and provide full access at all times for City personnel to carry out maintenance and operational duties.

(a) No additional payments will be made for providing access to City forces on the site or any potential affect City crews might have on the Contractor's work.

## **E12. TEMPORARY SHUTDOWN OF THE WASTEWATER PUMPING STATION**

E12.1 Shutdowns of the wastewater pumping station will not be permitted during periods of high wastewater flows, which generally include the following:

(a) March 1 to May 31

(b) Rain or snow melt weather events.

E12.2 Temporary shutdown of the Wastewater Pumping (Lift) Station will be allowed for the following work activities.

(a) Connection of the electrical power to the new soft starters in the Lift Station.

(b) Sequence work such that a minimum amount of shut-down time at the Station is used for the above mentioned activities (i.e. replace one pumping unit while the other pumping units are still on-line).

E12.3 Prepare and submit shutdown plans a minimum of one week prior to the proposed shutdown.

E12.4 All gate operation and other control relating to the wastewater process will be performed by the City.

E12.5 Allowable shutdown times for the Mager Drive Wastewater Pumping Station are limited. Subject to unforeseen flow conditions, the allowable shutdown times will be as follows:

(a) Daytime (6:00 am to 10:30 pm): Fifteen (15) minutes

(b) Night-time (10:30 pm to 6:00 am): One (1) hour

E12.6 It will be permissible to have one pump out of service under the following conditions:

(a) The weather has no probability of rain and the wastewater flows are comfortably less than the pumping rate of one pump.

(b) The pump is back online each day after the Contractor leaves the station.

(c) The Contractor has scheduled the pump outage with the Contract Administrator.

E12.7 Schedule work activities requiring longer station shutdown to be done at night, if required by the Contract Administrator, when flow amounts are generally reduced, to maximize the amount of shutdown time available and reduce the risks associated with station shutdown.

E12.8 Schedule several work activities to be completed in the same shutdown where possible to minimize the number of station shutdowns.

E12.9 Water and Waste Department, Collection System personnel will be available to provide assistance to the Contractor for temporary shutdown of the wastewater pumping station to facilitate completion of the Work.

- E12.10 There will be no charge to temporarily shutdown the wastewater pumping station for the work activity listed.
- E12.11 If an unreasonable number of station shutdowns are required to complete the same work activity due to the Contractor's method of operation, a fee of \$300.00 per hour for Collection System personnel may be charged to the Contractor and deducted from future Progress Payments.
- E12.12 The Contract Administrator reserves the right to cancel a planned station shutdown if in his opinion, flow conditions or the weather forecast would not allow for a shutdown of sufficient duration to complete the work activity. The Contractor shall reschedule the work activity to a more suitable time.
- E12.13 Consecutive back-to-back station shutdowns will not be allowed until the sewer system has returned to normal.

### **E13. TEMPORARY SHUTDOWN OF THE FLOOD PUMPING STATION**

- E13.1 Temporary shutdown of the Flood Pumping Station will be allowed while the river levels are lower than the activation level of the flood pumping station. River levels are weather dependent, and typically would be above the activation level from March 1 to May 31. However Contractor is advised that high river levels during the entire summer have been experienced in recent years.
- (a) No payment will be made due to delays in the work due to high river levels.
- E13.2 Prepare and submit shutdown plans a minimum of one week prior to the proposed shutdown.
- E13.3 It is expected that shutdowns for eight (8) hours during low river levels will be accommodated.
- E13.4 Schedule several work activities to be completed in the same shutdown where possible to minimize the number of station shutdowns.
- E13.5 Water and Waste Department, Collection System personnel will be available to provide assistance to the Contractor for temporary shutdown of the flood pumping station to facilitate completion of the Work.
- E13.6 There will be no charge to temporarily shutdown the flood pumping station for the work activity listed.
- E13.7 If an unreasonable number of station shutdowns are required to complete the same work activity due to the Contractor's method of operation, a fee of \$300.00 per hour for Collection System personnel may be charged to the Contractor and deducted from future Progress Payments.
- E13.8 The Contract Administrator reserves the right to cancel a planned station shutdown if in his opinion, flow conditions or the weather forecast would not allow for a shutdown of sufficient duration to complete the work activity. The Contractor shall reschedule the work activity to a more suitable time.