



THE CITY OF WINNIPEG

BID OPPORTUNITY

BID OPPORTUNITY NO. 662-2007

UNINTERRUPTIBLE POWER SUPPLY UPGRADES

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 UNINTERRUPTIBLE POWER SUPPLY UPGRADES

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 12:00 noon Winnipeg time, January 30, 2008.

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 Deacon Pumping Station on Tuesday, January 22, 2008 at 9:00 am to provide a tour for Bidders of the facility.

- (a) Bidders are asked to register with security personnel at the site entrance, park in the south Contractor parking lot, and meet at the entrance to the Deacon Booster Pumping Station.
- (b) A tour of the Deacon Chemical Feed Building will be held after the tour of the Deacon Booster Pumping Station is complete.
- (c) Bidders will not be permitted to walk through the facility unattended.
- (d) Safety gear including a hardhat, orange safety vest, safety glasses, and safety boots must be worn by Bidders while on the Deacon site.
- (e) Bidders are required to call the Contract Administrator to confirm their attendance.

B3.2 Further to C3.1, the Contract Administrator or an authorized representative will be available on Wednesday, January 23, 2008 at 9:00 am to provide a tour for Bidders of the following facilities:

- (a) The meeting point will be the door at the south-west corner of McPhillips Pumping Station.
- (b) The tour will be of the following facilities:
 - (i) McPhillips Pumping Station,
 - (ii) Tache Booster Station,
 - (iii) MacLean Pumping Station,
 - (iv) and Hurst Pumping Station.
- (c) Bidders must provide their own transportation between the facilities.
- (d) Bidders will not be permitted to walk through the facility unattended.

B3.3 The Bidder is advised that no other opportunities to view the sites will be provided, and attendance is highly recommended.

B3.4 The Bidder is advised that an opportunity to view the Shoal Lake Intake will not be provided.

B3.5 The Bidder shall not be entitled to rely on any information or interpretation received at the Site investigation unless that information or interpretation is the Bidder's direct observation, or is provided by the Contract Administrator in writing.

B3.6 Photographs may not be taken during the site investigations, unless authorization is specifically provided by the Contract Administrator for the item to be photographed.

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 Branch internet site 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 Branch internet site for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.
- B5.3 The Bidder shall acknowledge receipt of each addendum in Paragraph 10 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 B15.

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.

B7. BID COMPONENTS

B7.1 The Bid shall consist of the following components:

- (a) Form A: Bid;
- (b) Form B: Prices;
- (c) Form G1: Bid Bond and Agreement to Bond, or
Form G2: Irrevocable Standby Letter of Credit and Undertaking, or
a certified cheque or draft;

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 shall be submitted enclosed and sealed in an envelope clearly marked with the Bid Opportunity number and the Bidder's name and address.

B7.4.1 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.

- B7.5 Bidders are advised not to include any information/literature except as requested in accordance with B7.1.
- B7.6 Bidders are advised that inclusion of terms and conditions inconsistent with the Bid Opportunity document, including the General Conditions, may result in the Bid being determined to be non-responsive.
- B7.7 Bids submitted by facsimile transmission (fax) or internet electronic mail (e-mail) will not be accepted.
- B7.8 Bids shall be submitted to:
The City of Winnipeg
Corporate Finance Department
Materials Management Branch
185 King Street, Main Floor
Winnipeg MB R3B 1J1

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 12 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 and the corporate seal, if the corporation has one, should be affixed;
 - (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 shall be printed below such signatures.
- B8.4.2 All signatures should be witnessed, except where a corporate seal has been affixed.
- 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.

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 Branch internet site at <http://www.winnipeg.ca/matmgt>).
- 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 three (3) 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 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 Branch internet site 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. BID SECURITY

B11.1 The Bidder shall provide bid security in the form of:

- (a) a bid bond, in the amount of at least ten percent (10%) of the Total Bid Price, and agreement to bond of a company registered to conduct the business of a surety in Manitoba, in the form included in the Bid Submission (Form G1: Bid Bond and Agreement to Bond); or
- (b) an irrevocable standby letter of credit, in the amount of at least ten percent (10%) of the Total Bid Price, and undertaking 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 included in the Bid Submission (Form G2: Irrevocable Standby Letter of Credit and Undertaking); or
- (c) a certified cheque or draft payable to "The City of Winnipeg", in the amount of at least fifty percent (50%) of the Total Bid Price, drawn on a bank or other financial institution registered to conduct business in Manitoba.

B11.1.1 If the Bidder submits alternative bids, the bid security shall be in the amount of the specified percentage of the highest Total Bid Price submitted.

B11.1.2 All signatures on bid securities shall be original, and shall be witnessed or sealed as required.

B11.2 The bid security of the successful Bidder and the next two lowest evaluated responsive and responsible Bidders will be released by the City when a Contract for the Work has been duly executed by the successful Bidder and the performance security furnished as provided herein. The bid securities of all other Bidders will be released when a Contract is awarded.

B11.2.1 Where the bid security provided by the successful Bidder is in the form of a certified cheque or draft pursuant to B11.1(c), it will be deposited and retained by the City as the performance security and no further submission is required.

B11.2.2 The City will not pay any interest on certified cheques or drafts furnished as bid security or subsequently retained as performance security.

B11.3 The bid securities of all Bidders will be released by the City as soon as practicable following notification by the Contract Administrator to the Bidders that no award of Contract will be made pursuant to the Bid Opportunity.

B12. OPENING OF BIDS AND RELEASE OF INFORMATION

B12.1 Bids will be opened publicly, after the Submission Deadline has elapsed, in the office of the Corporate Finance Department, Materials Management Branch, or in such other office as may be designated by the Manager of Materials.

B12.1.1 Bidders or their representatives may attend.

B12.1.2 Bids determined by the Manager of Materials, or his designate, to not include the bid security specified in B11 will not be read out.

B12.2 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 Branch internet site at <http://www.winnipeg.ca/matmgt>.

B12.3 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 Branch internet site at <http://www.winnipeg.ca/matmgt>.

B12.4 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.

B13. IRREVOCABLE BID

B13.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 11 of Form A: Bid.

B13.2 The acceptance by the City of any Bid shall not release the Bids of the next two lowest evaluated responsive Bidders and these Bidders shall be bound by their Bids on such Work until a Contract for the Work has been duly executed and the performance security furnished as herein provided, but any Bid shall be deemed to have lapsed unless accepted within the time period specified in Paragraph 11 of Form A: Bid.

B14. WITHDRAWAL OF BIDS

B14.1 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.

B14.1.1 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.

B14.1.2 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 12 of Form A: Bid, and only such person, has authority to give notice of withdrawal.

B14.1.3 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 12 of Form A: Bid; and
- (c) if the notice has been given by any one of the persons specified in B14.1.3(b), declare the Bid withdrawn.

B14.2 A Bidder who withdraws his Bid after the Submission Deadline but before his Bid has been released or has lapsed as provided for in B13.2 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, including the right to retain the Bidder's bid security.

B15. EVALUATION OF BIDS

B15.1 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 (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.

B15.2 Further to B15.1(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.

B15.3 Further to B15.1(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.

B15.4 Further to B15.1(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.

B15.4.1 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.

B16. AWARD OF CONTRACT

B16.1 The City will give notice of the award of the Contract or will give notice that no award will be made.

B16.2 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.

B16.2.1 Without limiting the generality of B16.2, 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.

B16.3 Subject to B16.2, 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.

B16.3.1 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.

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 Branch internet site at <http://www.winnipeg.ca/matmgt>.
- 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 replacement of seven UPS units at six City of Winnipeg water facilities, and electrical work to support the new UPS installations.

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

- (a) Supply and install the UPS in the Shoal Lake Intake facility.
- (b) Supply and install the UPS and associated electrical work in the Deacon Chemical Feed Building.
- (c) Supply and install the UPS and associated electrical work in the Deacon Booster Pumping Station.
- (d) Install the UPS in the MacLean Pumping Station. The UPS to be installed is currently located in Deacon Booster Pumping Station.
- (e) Supply and install the UPS in the McPhillips Pumping Station.
- (f) Supply and install the UPS in the Hurst Pumping Station.
- (g) Supply and install the UPS and associated electrical work in the Tache Booster Pumping Station.

D3. DEFINITIONS

D3.1 When used in this Bid Opportunity:

- (a) "**UPS**" means Uninterruptible Power Supply;

D4. CONTRACT ADMINISTRATOR

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

Curtis Reimer
Senior Instrumentation / Systems Engineer
148 Nature Park Way, Winnipeg, MB, R3P 0X7
Telephone No. (204) 786-8080
Facsimile No. (204) 786-7934
E-mail curtis.reimer@snclavalin.com

D4.2 At the pre-construction meeting, Curtis Reimer 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 All notices of appeal to the Chief Administrative Officer shall be sent to the following address or facsimile number:
- The City of Winnipeg
Chief Administrative Officer Secretariat
Attn: Chief Administrative Officer
Administration Building, 3rd Floor
510 Main Street
Winnipeg MB R3B 1B9
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
Corporate Services Department
Legal Services Division
Attn: City Solicitor
185 King Street, 3rd Floor
Winnipeg MB R3B 1J1
Facsimile No.: (204) 947-9155

D7. FURNISHING OF DOCUMENTS

- D7.1 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 at cost.

SUBMISSIONS

D8. AUTHORITY TO CARRY ON BUSINESS

- D8.1 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.

D9. SAFE WORK PLAN

- D9.1 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.

D9.2 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 Branch internet site at <http://www.winnipeg.ca/matmgt>.

D10. INSURANCE

D10.1 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;

D10.2 Deductibles shall be borne by the Contractor.

D10.3 The Contractor shall provide the City Solicitor with a certificate(s) of insurance, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Work but in no event later than the date specified in C4.1 for the return of the executed Contract.

D10.4 The Contractor shall not cancel, materially alter, or cause each policy to lapse without providing at least fifteen (15) Calendar Days prior written notice to the Contract Administrator.

D11. PERFORMANCE SECURITY

D11.1 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.

D11.1.1 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.

D11.2 If the bid security provided in his Bid was not a certified cheque or draft pursuant to B11.1(c), 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 letter of intent and prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.

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. SECURITY CLEARANCE

- D13.1 Each individual proposed to perform Work under the Contract shall be required to obtain a Criminal Record Search Certificate from the police service having jurisdiction at his place of residence.
- D13.2 Prior to the commencement of any Work, 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 the Work.
- D13.3 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.
- D13.4 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.
- D13.5 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.

SCHEDULE OF WORK

D14. COMMENCEMENT

- D14.1 The Contractor shall not commence any Work until he is in receipt of a letter of intent from the Award Authority authorizing the commencement of the Work.
- D14.2 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 D8;
 - (ii) evidence of the workers compensation coverage specified in C6.15;
 - (iii) the Safe Work Plan specified in D9;
 - (iv) evidence of the insurance specified in D10;
 - (v) the performance security specified in D11;
 - (vi) the Subcontractor list specified in D12;
 - (vii) the security clearances specified in D13.
 - (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.
 - (c) Access to the Site has been scheduled.
- D14.2.1 Further to D14.2(a)(vii), subject to all other requirements being met, the Contractor may commence Work associated with procurement of components prior to submitting the security clearances.
- D14.3 The Contractor shall commence the Work on the Site within seven (7) Working Days of receipt of the letter of intent.

D15. SUBSTANTIAL PERFORMANCE

- D15.1 The Contractor shall achieve Substantial Performance by May 15, 2008.
- D15.2 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.
- D15.3 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.

D16. TOTAL PERFORMANCE

- D16.1 The Contractor shall achieve Total Performance by May 30, 2008.
- D16.2 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.
- D16.3 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.

D17. LIQUIDATED DAMAGES

- D17.1 If the Contractor fails to achieve 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 – one thousand dollars (\$1000);
 - (b) Total Performance – five hundred dollars (\$500).
- D17.2 The amounts specified for liquidated damages in D17.1 are based on a genuine pre-estimate of the City's losses in the event that the Contractor does not achieve Substantial Performance or Total Performance by the days fixed herein for same.
- D17.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

CONTROL OF WORK

D18. JOB MEETINGS

- D18.1 Regular job meetings will be held at 110-1199 Pacific Ave., or at an alternate location, as arranged by the Contract Administrator. 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.
- D18.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he deems it necessary.

D19. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)

D19.1 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).

D20. COOPERATION WITH OTHERS

D20.1 The Contractor shall note that several other construction projects will be underway at the Deacon facility, including, but not limited to:

- (a) Bid Opportunity 682-2005 Winnipeg Water Treatment Program – Supply of Standby Generator and 5kV Switchgear;
- (b) Bid Opportunity 498-2006 Water Treatment Program – Construction of Generator Building and Ancillary Buildings;
- (c) Bid Opportunity 742-2005 Winnipeg Water Treatment Program – The Supply and Installation of Water Treatment Plant Process Mechanical and Electrical;
- (d) Bid Opportunity 571-2005 Winnipeg Water Treatment Program – Supply of Deacon Booster Pumps;
- (e) Bid Opportunity 37-2006 Winnipeg Water Treatment Program - Surge Tower Construction;
- (f) Bid Opportunity 791-2006 Winnipeg Water Treatment Program – Construction of Water Treatment Plant Overflow and Supernatant Lines; and
- (g) Bid Opportunity 36-2006 . Winnipeg Water Treatment Program – Construction of Surge Tower Overflow Piping.
- (h) Bid Opportunity 94-2007 Winnipeg Water Treatment Program – Construction of Site Utilities.
- (i) Bid Opportunity 35-2006 Winnipeg Water Treatment Program - Deacon Booster Pumping Station Upgrade

D20.2 Bid Opportunities for the above are available at the City of Winnipeg Materials Management website at <http://www.winnipeg.ca/matmgt/bidopp.asp>.

D20.3 The Contractor will not have exclusive use of the Site. The Contractor shall coordinate activities with others and minimize disruptions to others, where possible.

MEASUREMENT AND PAYMENT

D21. PAYMENT

D21.1 Further to C12, effective January 1, 2007 the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

D22. PAYMENT SCHEDULE

D22.1 Further to C12, payment shall be in accordance with the following payment schedule:

- (a) 13% on completion of the Shoal Lake Intake Facility UPS Installation;
- (b) 16% on completion of the Deacon Chemical Feed Building UPS Installation;
- (c) 30% on completion of the Deacon Booster Pumping Station UPS Installation;
- (d) 3% on completion of the MacLean Pumping Station UPS Installation;
- (e) 10% on completion of the McPhillips Pumping Station UPS Installation;
- (f) 10% on completion of the Hurst Pumping Station UPS Installation;
- (g) 13% on completion of the Tache Booster Pumping Station UPS Installation;
- (h) 5% on Total Performance.

FORM H1: PERFORMANCE BOND
(See D11)

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 dated the

_____ day of _____, 20____, for:

BID OPPORTUNITY NO. 662-2007

UNINTERRUPTIBLE POWER SUPPLY 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)

(Name of Principal)

Per: _____ (Seal)

Per: _____

(Name of Surety)

By: _____ (Seal)
(Attorney-in-Fact)

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 Branch internet site at <http://www.winnipeg.ca/matmgt>.
- 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 42 00	References
01 45 00	Quality Control
01 52 00	Construction Facilities
01 61 00	Common Product Requirements
01 73 03	Execution Requirements
01 74 11	Cleaning
01 78 00	Closeout Submittals
26 05 01	Common Work Results – Electrical
26 05 21	Wire and Cables (0-1000V)
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 34	Conduits, Conduit Fastenings, and Conduit Fittings
26 08 01	System Testing
26 12 17	Dry Type Transformers Up To 600V Primary
26 24 17	Panelboards Breaker Type
26 28 21	Moulded Case Breakers
26 28 23	Disconnect Switches – Fused and Non-fused
26 33 53	Static Uninterruptible Power Supplies

<u>Drawing No.</u>	<u>Drawing Name/Title</u>
	Shoal Lake Intake
1-0600M-E0001-001	Single Line Diagram & Layout, Removals & Installations
1-0600M-E0002-001	Operating Instructions, UPS-1
1-0600M-A0001-001	Instrument Loop Diagram, UPS-1 Alarms
	Deacon Chemical Feed Building
1-0620C-E0001-001	Single Line Diagram & Layout, Existing Configuration
1-0620C-E0002-001	Single Line Diagram, New Installation
1-0620C-E0003-001	Floor Plan, New Installation
1-0620C-E0004-001	Wiring Diagram, UPS-C1
1-0620C-E0005-001	Operating Instructions, UPS-C1
1-0620C-A0001-001	Instrument Loop Diagram, UPS-C1 Alarms
	Deacon Booster Pumping Station
1-0620D-E0001-001	Single Line Diagram, Removals & Installations

1-0620D-E0002-001	Plan View, Elevation 232.45
1-0620D-E0003-001	Plan View, Elevation 229.80
1-0620D-E0004-001	Plan View, UPS-D1 Installation
1-0620D-E0005-001	Wiring Diagram, UPS-D1
1-0620D-E0006-001	Panel Schedules, PNL-D19 And PNL-D20
1-0620D-E0007-001	Operating Instructions, UPS-D1
1-0620D-A0001-001	Instrument Loop Diagram, UPS-D1 Alarms

MacLean Pumping Station

1-0630M-E0008-001	Single Line Diagram & Layout, Removals & Installations
1-0630M-E0009-001	Operating Instructions, UPS-1
1-0630M-A0027-001	Instrument Loop Diagram, UPS-1 Alarms

McPhillips Pumping Station

1-0640M-E0011-001	Single Line Diagram & Layout, Removals & Installations
1-0640M-E0012-001	Operating Instructions, UPS-1
1-0640M-A0028-001	Instrument Loop Diagram, UPS-1 Alarms

Hurst Pumping Station

1-0650M-E0011-001	Single Line Diagram & Layout, Removals & Installations
1-0650M-E0012-001	Operating Instructions, UPS-1
1-0650M-A0027-001	Instrument Loop Diagram, UPS-1 Alarms

Tache Booster Pumping Station

1-0660M-E0001-001	Single Line Diagram & Layout, Existing Configuration
1-0660M-E0002-001	Single Line Diagram & Layout, New Installation
1-0660M-E0003-001	UPS Upgrades, Wiring Diagram, UPS-1
1-0660M-E0004-001	UPS Upgrades, Operating Instructions, UPS-1
1-0660M-A0001-001	UPS Upgrades, Instrument Loop Diagram, UPS-1 Alarms

E2. SECURITY

- E2.1 The City of Winnipeg water pumping facilities are secure buildings, and access will be provided by City personnel. The Contractor will be responsible for coordinating with the Contract Administrator and City as required, to gain access to the facilities. The Contractor must comply with all City policies set forth in this document, and detailed instructions provided after the Work is awarded.
- E2.2 The Contractor is not permitted to take photographs inside the City of Winnipeg facilities, unless specifically approved by the Contract Administrator.

E3. LOCATION AND ACCESS TO FACILITIES

- E3.1 The Shoal Lake Intake facility is located on Indian Bay of Shoal Lake. The Greater Winnipeg Water District Railway provides access to the facility, which is not accessible by road travel. Material is to be delivered to 598 Plinguet Street, where it will be loaded onto a railway car, for delivery to the Shoal Lake Intake facility, by City personnel. Transportation for the Contractor's personnel and small tools will be from near East Braintree, south of the Trans Canada Highway, to the Intake facility, and will be provided by the City.
- E3.2 Deacon Booster Pumping Station and the Deacon Chemical Feed Building are located off PR 207, approximately 3.2 km north of the Trans Canada Highway. The UPS installation in the Deacon Booster Pumping Station is below grade, and a hoist is available, if required.
- The Site address is PR 207, Lot 57082, Dugald, Manitoba.
 - The Contractor will typically have access to the Site on Business Days between 07:00 and 18:00, as scheduled by the Contract Administrator.
 - Access to the work site is restricted and cooperation with other contractors on site is necessary in the best interest of all parties.

- (d) All Contractor personnel working at the Deacon facility will be required to attend a short safety procedures course, as coordinated by the Contract Administrator.
- (e) All Contractor personnel working at the Deacon facility are required to wear safety gear including an orange safety vest, hardhat, safety glasses, and safety boots.

E3.3 McPhillips Pumping Station is located just north of the corner of McPhillips Street and Logan Avenue.

E3.4 Hurst Pumping Station is located west of Waverley Street, on Hurst Way.

E3.5 MacLean Pumping Station is located at the corner of Lagimodiere Blvd and Marion Street. The UPS installation is one floor below grade level. A hoist is available if required, however it should be noted that a manual lateral pull is required to reach the desired floor level.

E3.6 Tache Booster Pumping Station is located on the corner of Tache Ave. and Messenger Street.

E4. WORK INCLUDED IN SCOPE

E4.1 The work required at the Shoal Lake Intake is as follows:

- (a) Supply and install a new UPS as specified in Section 26 33 53.
- (b) Remove and dispose of the existing UPS and batteries.
- (c) Connect the UPS Relay Interface Card to the facility PLC for alarming.
- (d) Perform miscellaneous work, as shown on the drawings.
- (e) Test the UPS as indicated in the Specifications.

E4.2 The work required at the Deacon Chemical Feed Building is as follows:

- (a) Supply and install the electrical installation to support the new UPS installation, as shown on the drawings.
- (b) Supply and install a new UPS as specified in Section 26 33 53.
- (c) Connect the UPS Relay Interface Card to the facility PLC for alarming.
- (d) Disconnect and remove the wiring for the existing Powerware Prestige UPS. Leave the UPS and batteries on site.
- (e) Remove the existing, uninstalled, Powerware Plus UPS in the building.
- (f) Test the UPS and associated electrical work as indicated in the Specifications.

E4.3 The work required at the Deacon Booster Pumping Station is as follows:

- (a) Supply and install the electrical installation to support the new UPS installation, as shown on the drawings.
- (b) Install a new UPS as specified in Section 26 33 53.
- (c) Connect the UPS Relay Interface Card to the facility PLC for alarming.
- (d) Relocate the existing 10kVA Powerware 9155 UPS to the MacLean Pumping Station.
- (e) Remove and dispose of the Powerware Plus UPS and batteries.
- (f) Test the UPS and associated electrical work as indicated in the Specifications.

E4.4 The work required at the MacLean Pumping Station is as follows:

- (a) Install the UPS relocated from the Deacon Booster Pumping Station, as specified in Section 26 33 53.
- (b) Remove and dispose of the existing UPS and batteries.
- (c) Replace the UPS Industrial Relay Card with a UPS Relay Interface Card. Connect the UPS Relay Interface Card to the facility PLC for alarming.

- (d) Perform miscellaneous work, as shown on the drawings.
- (e) Test the UPS as indicated in the Specifications. Note that full testing of the UPS is required, despite the UPS being an existing UPS relocated from Deacon Booster Pumping Station.

E4.5 The work required at the McPhillips Pumping Station is as follows:

- (a) Supply and install a new UPS as specified in Section 26 33 53.
- (b) Remove and dispose of the existing UPS and batteries.
- (c) Remove and dispose of the failed Powerware Plus UPS from the McPhillips Control Centre UPS room. The McPhillips Control Centre is adjacent to the McPhillips Pumping Station.
- (d) Connect the UPS Relay Interface Card to the facility PLC for alarming.
- (e) Perform miscellaneous work, as shown on the drawings.
- (f) Test the UPS as indicated in the Specifications.

E4.6 The work required at the Hurst Pumping Station is as follows:

- (a) Supply and install a new UPS as specified in Section 26 33 53.
- (b) Remove and dispose of the existing UPS and batteries.
- (c) Connect the UPS Relay Interface Card to the facility PLC for alarming.
- (d) Perform miscellaneous work, as shown on the drawings.
- (e) Test the UPS as indicated in the Specifications.

E4.7 The work required at the Tache Booster Pumping Station is as follows:

- (a) Supply and install the electrical installation to support the new UPS installation, as shown on the drawings.
- (b) Supply and install a new UPS as specified in Section 26 33 53.
- (c) Connect the UPS Relay Interface Card to the facility PLC for alarming.
- (d) Remove and dispose of the existing UPS and batteries.
- (e) Test the UPS and associated electrical work as indicated in the Specifications.

E5. ADDITIONAL WORK

E5.1 Additional work may be necessitated due to unforeseen circumstances that may arise during the course of the project due to:

- (a) Additions to the scope of Work by the Contract Administrator, beyond that defined herein.
- (b) Other issues that occur on site, which require significant Contractor time to address.

E5.2 Additional services will not be initiated for:

- (a) Reasons of lack of performance or errors in execution.
- (b) Scheduling changes initiated by the City, where at least 24 hours notice is given prior to the Contractor's scheduled time to be on site.

E5.3 Should it be determined that additional material or services are required, the Contract Administrator shall approve the work, prior to commencement of the additional work.

E5.4 Additional labour will be reimbursed at the rate specified on Form B: Item 2. The rate will not be adjusted for Subcontractors or individuals with specialized skills.

E5.5 Additional material will be reimbursed by the actual cost of the material, multiplied by a mark-up factor of 1.15, as indicated on Form B: Item 3.

- E5.6 The Contract Administrator may also request a written quotation for the additional work. For any work, where a written quotation is provided, and subsequently authorized, the valuation of the work shall be as per the quotation, regardless of the actual cost to the Contractor.
- (a) Quotations shall indicate the labour hours and base cost of material, as well as mark-up factors.
 - (b) Mark-up factors shall correspond to Form B Items 2 and 3, unless specifically authorized by the Contract Administrator.

E6. CRITICALITY OF FACILITY OPERATION

- E6.1 The facilities and UPS installations related to the Work are critical to the delivery of water to the City of Winnipeg. Under no condition shall the station, pumping, or other systems be shut down without prior permission of the Contract Administrator. Detailed shutdown schedules will be prepared by the Contract Administrator, and forwarded to the Contractor. The Contractor shall work within the schedule and any procedures given, and shall advise the Contract Administrator of any issues or concerns, prior to performing the Work.

E7. SCHEDULE OF WORK

- E7.1 The Contractor is required to advise the Contract Administrator of dates and times of required access to a City facility, a minimum of ten (10) Calendar Days prior to the required date.
- E7.2 The Contractor is required to be reasonably flexible regarding facility access, due to the high demand on City personnel's time. The Contractor shall not expect that continuous access to the facilities will be provided. The Contractor shall initiate and complete the work at each facility in a timely manner, to avoid a high demand of required facility access, as the Substantial Performance date is approached. The Contractor shall not assume that extensions to the Substantial Performance date will be provided due to lack of access to the facility.
- E7.3 The Contractor shall comply with requests by the Contract Administrator regarding sequencing of the work.
- E7.4 The Contractor shall provide information, and assist the Contract Administrator, in preparing schedules for the Work.
- E7.5 Schedule E701, a preliminary work coordination schedule for Deacon Booster Pumping Station and Deacon Chemical Feed Building, is included for reference.

E8. ANTICIPATED SHUTDOWNS

- E8.1 It is expected that for most of the work, that power will remain uninterrupted to the critical UPS fed panelboard, at each of the respective facilities. This will be accomplished by installing new equipment while the original installation is still in operation, and by utilizing the wall mounted manual UPS bypass switch, which is currently provided at all facilities, except the Deacon Chemical Feed Building. All work requiring a shutdown, or placing the UPS bypass switch into the *Bypass* position, will be scheduled by the Contract Administrator.
- E8.2 A shutdown is not anticipated at the Shoal Lake Intake facility. It is expected that the existing UPS will power the critical loads while the neutral bonding screw is removed, as shown on drawing 1-0600M-E0001. It is anticipated that the work will be performed during normal working hours, although travel may be outside normal working hours.
- E8.3 A shutdown is required at the Deacon Booster Pumping Station to install the new breaker bucket in the Essential MCC. It is anticipated that the shutdown will be scheduled during normal working hours.
- E8.4 A shutdown is required at the Deacon Booster Pumping Station and Chemical Feed Building to re-feed the Panel E and Panel AE1 supplies from the new UPS installations. It is anticipated that the shutdown will be scheduled during normal working hours.

- E8.5 A shutdown is required at the MacLean Pumping Station to perform the installation of the required neutral conductor and remove the neutral to ground bonding screw, as shown on drawing 1-0630M-E0008. This work and the replacement of the UPS will be performed during night-time hours (11:30 pm to 5:30 am.), to reduce the risks to the City. It is anticipated that UPS start-up and testing will be performed during normal working hours.
- E8.6 A shutdown is not anticipated at the McPhillips Pumping Station as, it is expected that the existing UPS will power the critical loads while the 70A upstream breaker is replaced with a 60A breaker, as shown on drawing 1-0640M-E0011. This work and the replacement of the UPS will be performed during night-time hours (11:30 pm to 5:30 am.), to reduce the risks to the City. It is anticipated that UPS start-up and testing will be performed during normal working hours.
- E8.7 A shutdown is required at the Hurst Pumping Station. It will be scheduled from 11:30 pm to 2:00 am on a weekday to perform the installation of the required neutral conductor, as shown on drawing 1-0650M-E0011. The replacement of the UPS, UPS start-up and testing will be performed during normal working hours.
- E8.8 A shutdown is required at the Tache Booster Pumping Station to allow for the new UPS installation. It is anticipated that the shutdowns will be scheduled during normal working hours, and will be limited in duration to the length of the work day. The Contractor is responsible for providing temporary equipment and wiring as required to ensure that Panel E is supplied by 120/240VAC utility power at the end of each work day.

E9. REPLACED UPS UNITS

- E9.1 Existing UPS units that are replaced, shall be kept on site during the new UPS installation process, and for one week after the new UPS begins powering the load.
- (a) The existing Powerware Plus units currently in the Deacon Chemical Feed Building, Shoal Lake Intake, MacLean Pumping Station, McPhillips Pumping Station, Hurst Pumping Station, and Tache Booster Pumping Station shall removed and be disposed of.
 - (b) The existing Powerware 9155 UPS at the Deacon Booster Pumping Station shall be moved to and installed at the MacLean Pumping Station.
 - (c) The existing Powerware Prestige UPS in the Deacon Chemical Feed Building is to remain, although all wiring is to be disconnected.
- E9.2 On any failure with the new UPS installation, while the existing UPS remains on site, the Contractor shall re-install the existing UPS, if requested by the Contract Administrator.
- (a) No additional payment to the Contractor will be made, if the Contractor is responsible for the failure of the new UPS installation.

SCHEDULE E701: PRELIMINARY DEACON SCHEDULE

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 (See E7.5)

Item	Time	Item	Responsibility	Facility Operation
Day 1 – 10 (Duration Estimated)				
1	-	Install new electrical equipment & cables in Deacon Booster Pumping Station	Contractor	Normal
2	-	Test electrical distribution, un-powered tests	Contractor	Normal
3	-	Install new electrical equipment & cables in Deacon Chemical Feed Building	Contractor	Normal
4	-	Test UPS-C1 electrical distribution, powered tests	Contractor	Normal
Day 11 – Deacon Booster Pumping Station MCC Tie In Note: The SCADA system and radio transmitter will remain operational for the duration of the existing UPS battery.				
5	8:30 am	Shutdown Deacon Booster Pumping Station	CoW Operations	Shutdown
6	9:00 am	Remove Power to Essential MCC	CoW Elec.	Shutdown
7	9:15 am	Install new feeder bucket in MCC and connect cable	Contractor	Shutdown
8	10:15 am	Restore Power to Essential MCC	CoW Elec.	Shutdown
9	10:30 am	Restore Deacon Booster Pumping Station to Normal Operation	CoW Operations	Normal
10	10:30 am - 4:00 pm	Power Up and Configure new UPS-D1.	Contractor	Normal
Day 12 –UPS Testing Note: The existing UPSs will continue to be utilized during the testing.				
11	8:30 am	Test UPS-D1 electrical distribution, powered tests	Contractor	Normal
12	10:30 am	UPS-D1 Measurement Tests	Contractor	Normal
13	1:00 pm	UPS-D1 SCADA Alarm Tests	Contractor & CoW Elec & SCADA	Normal
14	2:00 pm	UPS-C1 SCADA Alarm Tests	Contractor & CoW Elec & SCADA	Normal
Day 13 – UPS Testing Note: The existing UPSs will continue to be utilized during the testing.				
15	8:30 am	UPS-D1 Battery Testing	Contractor	Normal
16	10:30 am	UPS-D1 Steady Load Test	Contractor	Normal
17	1:00 pm	UPS-D1 Battery Load Test	Contractor	Normal
18	3:00 pm	Set UPS-D1 into mode for final operation. Set MTS-D1 into UPS position. Power PNL-D20.	Contractor	Normal
Day 14 – UPS Testing Note: The existing UPSs will continue to be utilized during the testing.				
19	8:30 am	UPS-C1 Measurement Tests	Contractor	Normal
20	9:30 am	UPS-C1 Battery Testing	Contractor	Normal
21	1:00 pm	UPS-C1 Steady Load Test	Contractor	Normal
22	2:30 pm	UPS-C1 Battery Load Test	Contractor	Normal

SCHEDULE E702: PRELIMINARY DEACON SCHEDULE
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Item	Time	Item	Responsibility	Facility Operation
Day 15 – UPS Changeover				
Note: At the end of this shutdown, the facility will be utilizing the new UPS-D1. During the shutdown, the SCADA System will be inoperable, and radio contact with the aqueduct and Shoal Lake will be lost. Note that this shutdown may not happen immediately after the previous scheduled day.				
23	8:00 am	Shutdown Deacon Booster Pumping Station	CoW Operations	Shutdown
Changeover Deacon Booster Pumping Station UPS				
24	8:30 am	Turn off all DBPS Panel-E load breakers. Shut down UPS.	CoW Elec	Shutdown
25	8:45 am	Remove power to existing DBPS UPS at Essential MCC. Lockout.	CoW Elec	Shutdown
26	9:00 am	Re-feed existing Panel E from new PNL-D19.	Contractor	Shutdown
27	10:00 am	Re-power existing Panel E.	Contractor	Shutdown
28	10:15 am	Verify power at Panel E and Turn on all Panel-E load breakers.	CoW Elec	Shutdown
29	10:30 am	Verify normal DBPS PLC / SCADA operation	CoW Operations & CoW Elec	Shutdown
Changeover Deacon Chemical Feed Building UPS				
30	1:00 pm	Turn off all Panel AE1 load breakers. Shut down the existing UPS.	CoW Elec	Shutdown
31	1:15 pm	Remove power to existing UPS. Lockout.	CoW Elec	Shutdown
32	1:30 pm	Re-feed existing Panel AE1 from new UPS-C1.	Contractor	Shutdown
33	2:30 pm	Re-power existing Panel AE1.	Contractor	Shutdown
34	2:45 pm	Verify power at Panel AE1 and turn on all Panel AE1 load breakers.	CoW Elec	Shutdown
35	3:00 pm	Verify normal DBPS PLC / SCADA operation	CoW Operations & CoW Elec	Shutdown
36	3:30 pm	Restore Deacon Booster Pumping Station to Normal Operation	CoW Operations	Normal
Day XX – Existing UPS Removal				
Note: The required demolition associated with the existing UPSs will be delayed until the new UPSs have been in operation, and powering the facility UPS load, for a minimum of one week.				
37	8:00 am	Remove existing Deacon Powerware 9155 UPS & transfer to MacLean Pumping Station	Contractor	Normal
38	8:00 am	Remove and dispose of other existing UPSs.	Contractor	Normal
39	9:00 am	Demolish existing cables, etc, as shown on the drawings.	Contractor	Normal