



THE CITY OF WINNIPEG

BID OPPORTUNITY

BID OPPORTUNITY NO. 711-2015

**WILKES RESERVOIR NORTH CELL REHABILITATION – CONSTRUCTION OF
LAYDOWN AREA**

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 WILKES RESERVOIR NORTH CELL REHABILITATION – CONSTRUCTION OF LAYDOWN AREA

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 12:00 noon Winnipeg time, September 15, 2015.

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 The Contract Administrator will conduct a Site Investigation tour of the proposed laydown area Site at 11:00 a.m. on September 10, 2015.

B3.2 Bidders are required to register for the Site Investigation **at least 48 hours** in advance by contacting the Contract Administrator identified in D4.

B3.3 Although attendance at the Site Investigation is not mandatory, the City strongly suggests that Bidders attend.

B3.4 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.

B3.5 Bidders registered for the Site Investigation must provide the Contract Administrator identified in D4 with a Public Safety Verification search obtained not earlier than one (1) year prior to the Site Investigation.

(a) The Public Safety Verification Check may be obtained from BackCheck by visiting <http://www.backcheck.net/cityofwinnipeg>. Note that the check will take up to 48 hours to complete. See Part F for further information.

(b) The results of the Public Safety Verification Check must be received by the City directly through BackCheck. Bidders must set up an account with BackCheck under their company name and grant BackCheck permission to share the results of the Public Safety Verification Check with the City of Winnipeg.

B3.6 CSA approved safety footwear and a hardhat are required for all personnel attending the Site Investigation.

B3.7 Bidders will not be allowed to take pictures at the Site Investigation. The Bidder may request pictures of specific areas from the Contract Administrator. The pictures will then be issued to all the Bidders registered for the Site Investigation.

B3.8 Bidders are advised that site access is restricted and access to view the site can only be made under supervision of the City or the Contract Administrator at the City's authorization.

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 B3 unless that response or interpretation is provided by the Contract Administrator in writing.

B5. CONFIDENTIALITY

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

B6. ADDENDA

- B6.1 The Contract Administrator may, at any time prior to the Submission Deadline, issue addenda correcting errors, discrepancies or omissions in the Bid Opportunity, or clarifying the meaning or intent of any provision therein.
- B6.2 The Contract Administrator will issue each addendum at least two (2) Business Days prior to the Submission Deadline, or provide at least two (2) Business Days by extending the Submission Deadline.
- B6.2.1 Addenda will be available on the Bid Opportunities page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/bidopp.asp>
- B6.2.2 The Bidder is responsible for ensuring that he/she has received all addenda and is advised to check the Materials Management Division website for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.
- B6.3 The Bidder shall acknowledge receipt of each addendum in Paragraph 10 of Form A: Bid. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.

B7. SUBSTITUTES

- B7.1 The Work is based on the Plant, Materials and methods specified in the Bid Opportunity.
- B7.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.
- B7.3 Requests for approval of a substitute will not be considered unless received in writing by the Contract Administrator at least five (5) Business Days prior to the Submission Deadline.

- B7.4 The Bidder shall ensure that any and all requests for approval of a substitute:
- (a) provide sufficient information and details to enable the Contract Administrator to determine the acceptability of the Plant, Material or method as either an approved equal or alternative;
 - (b) identify any and all changes required in the applicable Work, and all changes to any other Work, which would become necessary to accommodate the substitute;
 - (c) identify any anticipated cost or time savings that may be associated with the substitute;
 - (d) certify that, in the case of a request for approval as an approved equal, the substitute will fully perform the functions called for by the general design, be of equal or superior substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance;
 - (e) certify that, in the case of a request for approval as an approved alternative, the substitute will adequately perform the functions called for by the general design, be similar in substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance.
- B7.5 The Contract Administrator, after assessing the request for approval of a substitute, may in his/her sole discretion grant approval for the use of a substitute as an “approved equal” or as an “approved alternative”, or may refuse to grant approval of the substitute.
- B7.6 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, to the Bidder who requested approval of the substitute.
- B7.6.1 The Contract Administrator will issue an Addendum, disclosing the approved materials, equipment, methods and products to all potential Bidders. The Bidder requesting and obtaining the approval of a substitute shall be responsible for disseminating information regarding the approval to any person or persons he/she wishes to inform.
- B7.7 If the Contract Administrator approves a substitute as an “approved equal”, any Bidder may use the approved equal in place of the specified item.
- B7.8 If the Contract Administrator approves a substitute as an “approved alternative”, any Bidder bidding that approved alternative may base his/her Total Bid Price upon the specified item but may also indicate an alternative price based upon the approved alternative. Such alternatives will be evaluated in accordance with B17.
- B7.9 No later claim by the Contractor for an addition to the Total Bid Price because of any other changes in the Work necessitated by the use of an approved equal or an approved alternative will be considered.
- B7.10 Notwithstanding B7.2 to B7.9, and in accordance with B8.6 deviations inconsistent with the Bid Opportunity document shall be evaluated in accordance with B17.1(a).

B8. BID COMPONENTS

- B8.1 The Bid shall consist of the following components:
- (a) Form A: Bid;
 - (b) Form B: Prices;
 - (c) Bid Security
 - (i) Form G1: Bid Bond and Agreement to Bond, or
Form G2: Irrevocable Standby Letter of Credit and Undertaking, or
a certified cheque or draft;

- B8.2 Further to B8.1, the Bidder should include the written correspondence from the Contract Administrator approving a substitute in accordance with B7.
- B8.3 All components of the Bid shall be fully completed or provided, and submitted by the Bidder no later than the Submission Deadline, with all required entries made clearly and completely, to constitute a responsive Bid.
- B8.4 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.
- B8.4.1 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.
- B8.5 Bidders are advised not to include any information/literature except as requested in accordance with B8.1.
- B8.6 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 B17.1(a).
- B8.7 Bids submitted by facsimile transmission (fax) or internet electronic mail (e-mail) will not be accepted.
- B8.8 Bids shall be submitted to:
The City of Winnipeg
Corporate Finance Department
Materials Management Division
185 King Street, Main Floor
Winnipeg, MB R3B 1J1

B9. BID

- B9.1 The Bidder shall complete Form A: Bid, making all required entries.
- B9.2 Paragraph 2 of Form A: Bid shall be completed in accordance with the following requirements:
- (a) if the Bidder is a sole proprietor carrying on business in his/her own name, his/her name shall be inserted;
 - (b) if the Bidder is a partnership, the full name of the partnership shall be inserted;
 - (c) if the Bidder is a corporation, the full name of the corporation shall be inserted;
 - (d) if the Bidder is carrying on business under a name other than his/her own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.
- B9.2.1 If a Bid is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B9.2.
- B9.3 In Paragraph 3 of Form A: Bid, the Bidder shall identify a contact person who is authorized to represent the Bidder for purposes of the Bid.
- B9.4 Paragraph 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/her own name, it shall be signed by the Bidder;
 - (b) if the Bidder is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;
 - (c) if the Bidder is a corporation, it shall be signed by its duly authorized officer or officers 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/her own, it shall be signed by the registered owner of the business name, or by the registered owner's authorized officials if the owner is a partnership or a corporation.

B9.4.1 The name and official capacity of all individuals signing Form A: Bid should be printed below such signatures.

B9.5 If a Bid is submitted jointly by two or more persons, the word "Bidder" shall mean each and all such persons, and the undertakings, covenants and obligations of such joint Bidders in the Bid and the Contract, when awarded, shall be both joint and several.

B10. PRICES

B10.1 The Bidder shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.

B10.2 The quantities listed on Form B: Prices are to be considered approximate only. The City will use said quantities for the purpose of comparing Bids.

B10.3 The quantities for which payment will be made to the Contractor are to be determined by the Work actually performed and completed by the Contractor, to be measured as specified in the applicable Specifications.

B10.4 Payments to Non-Resident Contractors are subject to Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).

B11. DISCLOSURE

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

B11.2 The Persons are:

- (a) N/A

B12. QUALIFICATION

B12.1 The Bidder shall:

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

B12.2 The Bidder and any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

- (a) be responsible and not be suspended, debarred or in default of any obligations to the City. A list of suspended or debarred individuals and companies is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/debar.stm>

B12.3 The Bidder and/or any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

- (a) have successfully carried out work similar in nature, scope and value to the Work; and

- (b) be fully capable of performing the Work required to be in strict accordance with the terms and provisions of the Contract; and
- (c) have a written workplace safety and health program if required pursuant to The Workplace Safety and Health Act (Manitoba);
- (d) upon request of the Contract Administrator, obtain Security Clearances in accordance with PART F - Security Clearance;

B12.4 Further to B12.3(c), the Bidder shall, within five (5) Business Days of a request by the Contract Administrator, provide proof satisfactory to the Contract Administrator that the Bidder/Subcontractor has a workplace safety and health program meeting the requirements of The Workplace Safety and Health Act (Manitoba), by providing:

- (a) a copy of their valid Manitoba COR certificate and Letter of Good Standing (or Manitoba equivalency) as issued under the Certificate of Recognition (COR) Program administered by the Construction Safety Association of Manitoba or by the Manitoba Heavy Construction Association's WORKSAFELY™ COR™ Program; or
- (b) a copy of their valid Manitoba SECOR™ certificate and Letter of Good Standing (or Manitoba equivalency) as issued under the Small Employer Certificate of Recognition Program (SECOR™) administered by the Construction Safety Association of Manitoba or by the Manitoba Heavy Construction Association's WORKSAFELY™ COR™ Program; or
- (c) a report or letter to that effect from an independent reviewer acceptable to the City. (A list of acceptable reviewers and the review template are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>).

B12.5 The Bidder shall submit, within three (3) Business Days of a request by the Contract Administrator, proof satisfactory to the Contract Administrator of the qualifications of the Bidder and of any proposed Subcontractor.

B12.6 The Bidder shall provide, on the request of the Contract Administrator, full access to any of the Bidder's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Bidder's equipment and facilities are adequate to perform the Work.

B13. BID SECURITY

B13.1 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.

B13.1.1 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.

B13.1.2 All signatures on bid securities shall be original.

B13.1.3 The Bidder shall sign the Bid Bond.

B13.1.4 The Surety shall sign and affix its corporate seal on the Bid Bond and the Agreement to Bond.

B13.2 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.

B13.2.1 Where the bid security provided by the successful Bidder is in the form of a certified cheque or draft pursuant to B13.1(c), it will be deposited and retained by the City as the performance security and no further submission is required.

B13.2.2 The City will not pay any interest on certified cheques or drafts furnished as bid security or subsequently retained as performance security.

B13.3 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.

B14. OPENING OF BIDS AND RELEASE OF INFORMATION

B14.1 Bids will be opened publicly, after the Submission Deadline has elapsed, in the office of the Corporate Finance Department, Materials Management Division, or in such other office as may be designated by the Manager of Materials.

B14.1.1 Bidders or their representatives may attend.

B14.1.2 Bids determined by the Manager of Materials, or his/her designate, to not include the bid security specified in B13 will not be read out.

B14.2 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 and Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>

B14.3 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 and Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>

B14.4 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.

B15. IRREVOCABLE BID

B15.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 11 of Form A: Bid.

B15.2 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.

B16. WITHDRAWAL OF BIDS

B16.1 A Bidder may withdraw his/her Bid without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.

B16.1.1 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.

- B16.1.2 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.
- B16.1.3 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 B16.1.3(b), declare the Bid withdrawn.
- B16.2 A Bidder who withdraws his/her Bid after the Submission Deadline but before his/her Bid has been released or has lapsed as provided for in B15.2 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.

B17. EVALUATION OF BIDS

- B17.1 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 B12 (pass/fail);
 - (c) Total Bid Price;
 - (d) economic analysis of any approved alternative pursuant to B7.
- B17.2 Further to B17.1(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.
- B17.3 Further to B17.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in his/her Bid or in other information required to be submitted, that he/she is responsible and qualified.
- B17.4 Further to B17.1(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.
- B17.4.1 Further to B17.1(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.

B18. AWARD OF CONTRACT

- B18.1 The City will give notice of the award of the Contract or will give notice that no award will be made.
- B18.2 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.
- B18.2.1 Without limiting the generality of B18.2, 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.

B18.3 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 B17.

B18.3.1 Following the award of contract, a Bidder will be provided with information related to the evaluation of his/her Bid upon written request to the Contract Administrator.

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
- 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. DEFINITIONS

D2.1 When used in this Bid Opportunity:

- (a) "**Reservoir or Wilkes Reservoir**" means the Wilkes Reservoir facility generally defined as the area within the perimeter security fencing bound as follows:
- (i) Hurst Way to the north;
 - (ii) Hurst Way to the east;
 - (iii) Willson Place / Edderton Avenue to the south; and,
 - (iv) The Winnipeg Soccer Complex to the west.

D3. SCOPE OF WORK

D3.1 The Work to be done under the Contract shall consist of the construction of a laydown area to be used during the rehabilitation of the Wilkes Reservoir North Cell in 2016 and 2017.

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

- (a) Installation of temporary security fence and temporary snow fence;
- (b) Construction of 1500 mm dia. by-pass pipe bridge;
- (c) Construction of granular pad for laydown area;
- (d) Installation of new three-strand barbed wire chain link fence and gates;
- (e) Removal of temporary security fence, site restoration and related works.

D4. CONTRACT ADMINISTRATOR

D4.1 The Contract Administrator is Dillon Consulting Limited, represented by:

Sital Rihal, M.Eng., P.Eng.
Project Manager
1558 Willson Place
Winnipeg, Manitoba R3T 0Y4

Telephone No. 204 453-2301

Facsimile No. 204 452-4412

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

D4.3 Bids Submissions must be submitted to the address in B8.8

D5. CONTRACTOR'S SUPERVISOR

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

D5.2 At least two (2) Business Days prior to commencement of any Work on the Site, the Contractor shall provide the Contract Administrator with a phone number where the supervisor identified in D5.1 or an alternate can be contacted twenty-four (24) hours a day to respond to an emergency.

D6. OWNERSHIP OF INFORMATION, CONFIDENTIALITY AND NON DISCLOSURE

D6.1 The Contract, all deliverables produced or developed, and information provided to or acquired by the Contractor are the property of the City and shall not be appropriated for the Contractors own use, or for the use of any third party.

D6.2 The Contractor shall not make any public announcements or press releases regarding the Contract, without the prior written authorization of the Contract Administrator.

D6.3 The following shall be confidential and shall not be disclosed by the Contractor to the media or any member of the public without the prior written authorization of the Contract Administrator;

- (a) information provided to the Contractor by the City or acquired by the Contractor during the course of the Work;
- (b) the Contract, all deliverables produced or developed; and
- (c) any statement of fact or opinion regarding any aspect of the Contract.

D6.4 A Contractor who violates any provision of D6 may be determined to be in breach of Contract.

D7. NOTICES

D7.1 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.

D7.2 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the City, except as expressly otherwise required in D7.3 or elsewhere in the Contract, shall be sent to the attention of the Contract Administrator at the facsimile number identified in D4.1.

D7.3 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 facsimile number:

The City of Winnipeg
Legal Services Department
Attn: Director of Legal Services
Facsimile No.: 204 947-9155

D8. FURNISHING OF DOCUMENTS

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

D9. COOPERATION WITH OTHERS

D9.1 The Contractor's attention is directed to the fact that other Contractors, the personnel of Utilities, and the staff of the City may be working within the Site. The activities of these agencies may coincide with the Contractor's execution of the Work, and it will be the Contractor's responsibility to cooperate to the fullest extent with other personnel working in the area, and such cooperation is an obligation of the Contractor under the terms of this Contract.

- D9.2 The Contractor is advised that the following work may be occurring at or in the vicinity of the project Site:
- (a) General maintenance and operational work within and in the vicinity of the Reservoir.

SUBMISSIONS

D10. CRIMINAL RECORD SEARCH CERTIFICATE AND PUBLIC VERIFICATION CHECK

- D10.1 All personnel working on-Site, including Subcontractors, are required to obtain a Criminal Record Search Certificate and Public Safety Verification Check, as outlined in Part F. The Contractor shall submit copies of the Criminal Record Search Certificates and Public Safety Verification Checks for all personnel, including Subcontractors, who will be working on-Site to the Contract Administrator at least three (3) Business Days prior to commencement of the Works.
- D10.2 After commencement of the Works, the Contractor shall submit copies of the Criminal Record Search Certificates and Public Safety Verification Checks to the Contract Administrator for any personnel not identified in the original submission outlined in D10.1 who require access to the Site at least one (1) Business Day prior to accessing the Site.
- D10.3 Notwithstanding D10.1, personnel who are solely dropping off or picking up materials or equipment, with the Contract Administrator's approval, are not required to obtain Criminal Record Search Certificates and Public Safety Verification Checks **provided that the individual is escorted at all times by the Contractor's supervisor or a designated person. The individual shall remain within 5 m of his vehicle at all times while within the secure fenced area.** The Contract Administrator may, at his discretion, require that all personnel working on-Site, including delivery personnel, obtain the clearances outlined in D10.1 without exception.

D11. AUTHORITY TO CARRY ON BUSINESS

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

D12. SAFE WORK PLAN

- D12.1 The Contractor shall provide the Contract Administrator with a Safe Work Plan at least five (5) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.
- D12.2 The Safe Work Plan should be prepared and submitted in the format shown in the City's template which is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/Safety/default.stm>

D13. INSURANCE

- D13.1 The Contractor shall provide and maintain the following insurance coverage:
- (a) Commercial general liability insurance, in the amount of at least two million dollars (\$2,000,000.00) inclusive, with The City of Winnipeg added as an additional insured, with a cross-liability clause, such liability policy to also contain contractual liability, unlicensed motor vehicle liability, non-owned automobile liability, broad form property damage cover and products and completed operations, to remain in place at all times during the performance of the Work and throughout the warranty period;

- (b) If applicable, Automobile Liability Insurance covering all motor vehicles, owned and operated and used or to be used by the Contractor directly or indirectly in the performance of the Work. The Limit of Liability shall not be less than two million dollars (\$2,000,000.00) inclusive for loss or damage including personal injuries and death resulting from any one accident or occurrence.
- (c) An 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.
- (d) Contractors Pollution Liability (CPL) insurance in the amount of at least two million dollars (\$2,000,000.00) per occurrence and two million dollars (\$2,000,000.00) aggregate insuring against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the Work hereunder performed by the Contractor, its agents, representatives, employees or subcontractors. Coverage to include clean-up costs, diminution in value; and natural resource damages and consistent with industry standard insurance policy wordings.

D13.2 Deductibles shall be borne by the Contractor.

D13.3 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.

D13.4 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.

D14. PERFORMANCE SECURITY

D14.1 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.

D14.1.1 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.

D14.2 If the bid security provided in his/her Bid was not a certified cheque or draft pursuant to B13.1(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.

D15. SUBCONTRACTOR LIST

D15.1 The Contractor shall provide the Contract Administrator with a complete list of the Subcontractors whom the Contractor proposes to engage (Form J: Subcontractor List) at or prior to a pre-construction meeting, or 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 the General Conditions for the return of the executed Contract.

D16. DETAILED WORK SCHEDULE

- D16.1 The Contractor shall provide the Contract Administrator with a detailed work schedule 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 the General Conditions for the return of the executed Contract.
- D16.2 The detailed work schedule shall consist of the following:
- (a) a Gantt chart for the Work Schedule.
all acceptable to the Contract Administrator.
- D16.3 Further to D16.2(a), a Gantt chart Work schedule shall clearly identify the start and completion dates of all of the activities/tasks making up the Work as well as showing those activities/tasks on the critical path:
- D16.4 Update the Detailed Work Schedule to reflect actual progress on a regular basis. Update the schedule at least once every one (1) weeks and as requested by the Contract Administrator.

D17. CONSTRUCTION METHOD STATEMENT

- D17.1 The Contractor shall provide the Contract Administrator with a detailed Construction Method Statement at least three (3) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in the General Conditions for the return of the executed Contract.
- D17.2 The Construction Method Statement shall:
- (a) List the proposed construction equipment to be used including:
 - (i) Make/model and year.
 - (ii) Proposed Works to be completed by the specific piece of equipment.
 - (iii) Means of power for the equipment (battery, gas, diesel, etc.).
 - (iv) Means of providing access to the location in which the equipment is required.
 - (v) Equipment operating weight and dimensions including wheel or track base, track length or axle spacing, track widths or wheel configurations.
 - (vi) Payload weights.
 - (vii) Load distributions in the intended operating configuration.
 - (b) Indicate proposed haul routes, laydown areas, lifting and loading locations, and construction sequencing; and,
 - (c) Generally describe the construction methods that the Contractor will employ to complete the Works.
- D17.3 The Contractor shall not commence construction until the Construction Method Statement has been reviewed and accepted in writing by the Contract Administrator.
- D17.4 Prior to commencement of on-Site Work, the Contractor shall jointly conduct an orientation meeting with the Contract Administrator with all superintendents, foremen and heavy equipment operators to make all workers on-Site fully cognizant of the limitations of loading on Reservoir infrastructure, such as piping, the ramifications of inadvertent damage to Reservoir infrastructure, the constraints associated with work at the Project Site and the specific details of the Construction Method Statement in instances where a Construction Method Statement is in effect.

SCHEDULE OF WORK

D18. COMMENCEMENT

D18.1 The Contractor shall not commence any Work until he/she is in receipt of a letter of intent from the Award Authority authorizing the commencement of the Work.

D18.2 The Contractor shall not commence any Work on the Site until:

(a) The Contract Administrator has confirmed receipt and approval of:

- (i) The criminal record search certificates and public verification checks specified in D10
- (ii) evidence of authority to carry on business specified in D11;
- (iii) evidence of the workers compensation coverage specified in C6.15;
- (iv) the Safe Work Plan specified in D12;
- (v) evidence of the Insurance specified in D13;
- (vi) the Performance Security specified in D14;
- (vii) the Subcontractor list specified in D15;
- (viii) the Detailed Work Schedule specified in D16;
- (ix) the Construction Method Statement specified in D17; and,
- (x) the completion and acceptance by the City and the Contractor of the preconstruction photographic record specified in D20.
- (xi) the Environmental Protection Plan specified in E2.

(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.

D18.3 The Contractor shall not begin construction of the concrete pipe bridge until the approach permit has been secured by the City of Winnipeg as indicated in D21. The Contract Administrator will provide written confirmation once the permit has been obtained.

D18.4 The Contractor shall commence the Work on the Site within seven (7) Working Days of receipt of the letter of intent.

D18.3 The City intends to award this Contract by October 13, 2015

D18.3.1 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.

D19. RESTRICTED WORK HOURS

D19.1 Further to clause 3.10 of CW 130, the Contractor shall require written permission forty-eight (48) hours in advance from the Contract Administrator for any work to be performed between 2000 hours and 0700 hours, or on Saturdays, Sundays, Statutory Holidays and or Civic Holidays.

D20. DAMAGE TO EXISTING STRUCTURES AND PROPERTY

D20.1 Further to Section 3.13 of CW 1130 of the General Requirements, special care shall be taken to avoid damage to the Reservoir, existing adjacent structures and properties during the course of Work.

D20.2 The Contractor is advised that prior commencing any Work, the Contract Administrator will, in the presence of the Contractor, develop a record of the project Site conditions by means of photographs or other documentation or media. This record will be shared with the Contractor and the City, and will require signatures from the Contract Administrator, the City and the Contractor indicating acceptance of the preconstruction Site conditions prior to commencing the Works.

D20.3 Any damage caused by the Contractor or his Subcontractors to any part of the Reservoir, or to the adjacent structures of properties shall be promptly repaired by the Contractor at his own expense to the satisfaction of the Contract Administrator. Prior to Total Performance of the Project, the Contractor, the City and the Contract Administrator will review the preconstruction Site record and ensure that the Site has been restored to its preconstruction state. Any remaining damage shall be repaired by the Contractor at his own expense to the satisfaction of the Contract Administrator.

D21. WORK BY OTHERS

D21.1 The City of Winnipeg will secure the permit for the approach construction prior to commencement of the Works.

D22. SUBSTANTIAL PERFORMANCE

D22.1 The Contractor shall achieve Substantial Performance by November 20, 2015.

D22.2 When the Contractor considers the Work to be substantially performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Substantial Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be reinspected.

D22.3 The date on which the Work has been certified by the Contract Administrator as being substantially performed to the requirements of the Contract through the issue of a certificate of Substantial Performance is the date on which Substantial Performance has been achieved.

D23. TOTAL PERFORMANCE

D23.1 The Contractor shall achieve Total Performance by November 27, 2015.

D23.2 When the Contractor or the Contract Administrator considers the Work to be totally performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Total Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be reinspected.

D23.3 The date on which the Work has been certified by the Contract Administrator as being totally performed to the requirements of the Contract through the issue of a certificate of Total Performance is the date on which Total Performance has been achieved.

D24. LIQUIDATED DAMAGES

D24.1 If the Contractor fails to achieve Total Performance in accordance with the Contract by the day fixed herein for Total Performance, the Contractor shall pay the City one thousand dollars (\$1000.00) per Calendar Day for each and every Calendar Day following the day fixed herein for Total Performance during which such failure continues.

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

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

CONTROL OF WORK

D25. JOB MEETINGS

- D25.1 Regular weekly job meetings will be held at the Contract Administrator's office. These meetings shall be attended by a minimum of one representative of the Contract Administrator, one (1) representative of the City and one (1) 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.
- D25.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he/she deems it necessary.

D26. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)

- D26.1 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).

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

- D27.1 Further to B12.4, the Contractor/Subcontractor must, throughout the term of the Contract, have a Workplace Safety and Health Program meeting the requirements of The Workplace Safety and Health Act (Manitoba). At any time during the term of the Contract, the City may, at its sole discretion and acting reasonably, require updated proof of compliance, as set out in B12.4.

D28. LAYOUT OF THE WORK

- D28.1 The Contractor shall be responsible for the true and proper laying out of the Work and for the correctness of the location, levels, dimensions, and alignment of all aspects of the Work. He shall provide all required instruments and competent personnel for performing all layouts.
- D28.2 The Contract Administrator shall be notified at least one (1) Working Day prior to any Work being commenced in order to have the option to check and review all elevations and layouts at his discretion.
- D28.3 The Contractor shall carefully protect and preserve all benchmarks, pins, stakes, and other items of the basic data supplied by the Contract Administrator. Any such benchmarks, pins, or stakes removed or destroyed by the Contractor, without the consent of the Contract Administrator, shall be replaced by the Contract Administrator at the expense of the Contractor.
- D28.4 The Contractor shall arrange and carry on his Work so as not to conflict with the collection of any data in anyway by the Contract Administrator. The Contractor shall adjust Work and/or remove any interference as directed by the Contract Administrator at the expense of the Contractor.

MEASUREMENT AND PAYMENT

D29. PAYMENT

- D29.1 Further to C12, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

WARRANTY

D30. WARRANTY

- D30.1 Warranty is as stated in C13.
- D30.2 Notwithstanding D30.1, the Contractor is advised that a Site inspection of the laydown area will be performed in spring of 2016 at a date to be determined by the Contract Administrator, prior to the commencement of the Wilkes Reservoir North Cell Rehabilitation. The Contractor, the City and the Contract Administrator shall be present during the inspection. The purpose of the inspection will be to identify any deficiencies with the Work before the Site is turned over to the Contractor that is awarded the Wilkes Reservoir North Cell Rehabilitation contract. The Contractor shall address, repair, or rectify any deficiencies identified by the City or the Contract Administrator, at his expense, to the satisfaction of the Contract Administrator.

FORM H1: PERFORMANCE BOND
(See D14)

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. 711-2015

WILKES RESERVOIR NORTH CELL REHABILITATION – CONSTRUCTION OF LAYDOWN AREA

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 D14)

(Date)

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

RE: PERFORMANCE SECURITY - BID OPPORTUNITY NO. 711-2015

WILKES RESERVOIR NORTH CELL REHABILITATION – CONSTRUCTION OF LAYDOWN
AREA

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 (2007 Revision), International Chamber of Commerce Publication Number 600.

(Name of bank or financial institution)

Per: _____
(Authorized Signing Officer)

Per: _____
(Authorized Signing Officer)

FORM J: SUBCONTRACTOR LIST
(See D15)

WILKES RESERVOIR NORTH CELL REHABILITATION – CONSTRUCTION OF LAYDOWN AREA

| <u>Portion of the Work</u> | <u>Name</u> | <u>Address</u> |
|--|-------------|----------------|
| Supply of Materials | | |
| Temporary Security Fence | _____ | _____ |
| Temporary Snow Fence | _____ | _____ |
| Base Course & Sub-base | _____ | _____ |
| Separation Geotextile Fabric | _____ | _____ |
| Voidform | _____ | _____ |
| Reinforcing Steel | _____ | _____ |
| Structural Concrete | _____ | _____ |
| 3050 mm High Three-Strand Barbed Wire Chain link Fence | _____ | _____ |
| Vehicle / Pedestrian Access Gates | _____ | _____ |
| Corrugated Steel Pipe (CSP) Culvert | _____ | _____ |
| Installation/Placement | | |
| Temporary Security Fence | _____ | _____ |
| Temporary Snow Fence | _____ | _____ |
| Hydro Excavation | _____ | _____ |
| Base Course & Sub-base | _____ | _____ |
| Separation Geotextile Fabric | _____ | _____ |
| Voidform | _____ | _____ |
| Reinforcing Steel | _____ | _____ |
| Structural Concrete | _____ | _____ |
| Cast-in-Place Concrete Piles | _____ | _____ |
| 3050 mm High Three-Strand Barbed Wire Chain link Fence | _____ | _____ |
| Vehicle / Pedestrian Access Gates | _____ | _____ |
| Removal/Disposal of Existing Culvert | _____ | _____ |
| Corrugated Steel Pipe (CSP) Culvert | _____ | _____ |

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*.

| <u>Drawing No.</u> | <u>Drawing Name/Title</u> |
|--------------------|-------------------------------|
| 1-0650R-D0001-001 | Cover Sheet and Drawing Index |
| 1-0650R-C0001-001 | Site Plan |
| 1-0650R-C0002-001 | Laydown Area Sections |
| 1-0650R-C0003-001 | Typical Sections and Details |

E2. ENVIRONMENTAL PLAN

- E2.1 The Contractor shall be aware that the Wilkes Reservoir facility is for potable water supply and no contamination by fuel, chemicals, etc. shall be permitted at any time. Fuels, chemicals, or any other hazardous substances which may compromise the safety of the potable water supply shall not be stored within 30 m of the Reservoir or piping.
- E2.2 The Contractor shall plan and implement the Work of this Contract strictly in accordance with the requirements of the environmental protection measures as herein specified.
- E2.3 Submittals
- (a) Environmental Protection Plan including:
- (i) Names of persons responsible for ensuring adherence to Environmental Protection Plan.
 - (ii) Names and qualifications of persons responsible for manifesting hazardous waste to be removed from Site.
 - (iii) Names and qualifications of persons responsible for training Site personnel.
 - (iv) Descriptions of environmental protection personnel training program.
- (b) The Contractor is required to prepare and submit the following to the Contract Administrator prior to commencing construction, if applicable:
- (i) Storm Water Pollution Prevention Plan describing water quality protection measures including erosion and sediment controls, inspections, monitoring and staff training. The Plan shall also provide a schematic drawing indicating location and type of sediment protection measures.
 - (ii) Drawings showing locations of proposed temporary excavations or embankments for haul roads, material storage areas, structures, sanitary facilities, and stockpiles of excess or spoil materials including methods to control runoff and to contain materials on-Site.
 - (iii) Traffic control plans including measures to reduce erosion of temporary roadbeds by construction traffic, especially during wet weather. Plans include measures to minimize amount of mud transported onto paved public roads by vehicles or runoff.

- (iv) Work area plan showing proposed activity in each portion of area and identifying areas of limited use or non-use. Plan to include measures for marking limits of use areas including methods for protection of features to be preserved within authorized work areas.
- (v) Spill Control Plan including procedures, instructions, and reports to be used in event of unforeseen spill of regulated substance.
- (vi) Construction Waste Management Plan describing on-site waste management, disposal, reuse of materials, recycling and staff training.
- (vii) Hazardous Material Spill Management Plan describing management, reporting, emergency response and contact numbers, as well as staff training.

E2.4 The Contractor is advised that at least the following Acts, Regulations, and By-laws apply to the Work:

- (a) Workplace Hazardous Material Information System (Hazardous Product Act and Canada Labour Code);
- (b) Canadian Environmental Protection Act;
- (c) Canadian Environmental Assessment Act;
- (d) Transportation of Dangerous Goods Act;
- (e) Manitoba Environmental Act;
- (f) The Manitoba Nuisance Act N120;
- (g) The Public Health Act c.P210;
- (h) Manitoba Dangerous Goods, Handling, and Transportation Act;
- (i) The Workplace Safety and Health Act W210; and
- (j) Current applicable associated regulations.

E2.5 The Contractor is advised that the following environmental protection measures apply to the Work.

E2.5.1 Materials Handling and Storage

- (a) Construction materials shall not be stored within 5 m of existing pipe centerlines.

E2.5.2 Fuel Handling and Storage

- (a) The Contractor shall abide by the regulations of Manitoba Environment for handling and storage of fuel products.
- (b) All fuel handling and storage facilities shall comply with The Dangerous Goods and Transportation Act Storage and Handling of Petroleum Products Regulation and any local land use permits.
- (c) Fuels, lubricants, and other potentially hazardous materials as defined in The Dangerous Goods and Transportation Act shall be stored and handled within the approved storage areas.
- (d) The Contractor shall ensure that all fuel storage containers are inspected daily for leaks and spillage.
- (e) Products transferred from fuel storage area(s) to specific work sites shall not exceed the daily usage requirement.
- (f) When servicing requires the drainage or pumping of fuels, lubricating oils or other fluids from equipment, a groundsheet of suitable material (such as HDPE) and size shall be spread on the ground to catch the fluid in the event of a leak or spill.
- (g) Refuelling of mobile equipment and vehicles shall not take place on the Wilkes Reservoir site including the laydown area.
- (h) The area around storage sites and fuel lines shall be distinctly marked and kept clear of snow and debris to allow for routine inspection and leak detection.

- (i) A sufficient supply of materials such as absorbent material and plastic oil brooms, to clean-up minor spills shall be stored nearby on-site. The Contractor shall ensure that additional material can be made available on short notice.
- (j) Where stationary equipment is required to be erected on or within the reservoir dikes, equipment shall be staged on impermeable containment membrane or containment pans of sufficient volume to contain all hazardous fuels and liquids plus a safety factor of fifty percent (50%).
- (k) Fuelling of stationary equipment shall be completed with portable tanks containing only enough fuel to fill equipment.

E2.5.3 Waste Handling and Disposal

- (a) The construction area shall be kept clean and orderly at all times during and at completion of construction.
- (b) At no time during construction shall personal or construction waste be permitted to accumulate for more than one (1) day at any location on the construction site, other than at a dedicated storage areas as may be approved by the Contract Administrator.
- (c) Indiscriminate dumping, littering, or abandonment shall not take place.
- (d) Equipment shall not be cleaned near the Reservoir.

E2.5.4 Dangerous Goods/Hazardous Waste Handling and Disposal

- (a) Dangerous goods/hazardous waste are identified by, and shall be handled according to, The Dangerous Goods Handling and Transportation Act and Regulations.
- (b) The Contractor shall be familiar with The Dangerous Goods Handling and Transportation Act and Regulations.

E2.5.5 Fires

- (a) Fires and burning of rubbish on-Site shall not be permitted.

E2.5.6 Emergency Spill Response

- (a) The Contractor shall ensure that due care and caution is taken to prevent spills.
- (b) The Contractor shall report all major spills of petroleum products or other hazardous substances with the potential for impacting the environment and threat to human health and safety, including contamination of potable water, to the Contract Administrator and Manitoba Environment, immediately after occurrence of the environmental accident, by calling the 24-hour emergency telephone number 204-945-4888.
- (c) The Contractor shall designate a qualified supervisor as the on-site emergency response coordinator for the project. The emergency response coordinator shall have the authority to redirect manpower in order to respond in the event of a spill.
- (d) The following actions shall be taken by the person in charge of the spilled material or the first person(s) arriving at the scene of a hazardous material accident or the on-site emergency response coordinator:
 - (i) Notify emergency-response coordinator of the accident:
 - ◆ Identify exact location and time of accident
 - ◆ Indicate injuries, if any
 - ◆ Request assistance as required by magnitude of accident (Manitoba Environment 24-hour Spill Response Line 204-945-4888, Winnipeg Police Service, Winnipeg Fire Paramedic Service, company backup)
 - (ii) Assess situation and gather information on the status of the situation noting:
 - ◆ Personnel on-Site
 - ◆ Cause and effect of spill
 - ◆ Estimated extent of damage

- ◆ Amount and type of material involved
- ◆ Proximity to critical Reservoir infrastructure and other waterlines
- (iii) If safe to do so, try to stop the dispersion or flow of spill materials:
 - ◆ Approach from upwind
 - ◆ Stop or reduce leak if safe to do so
 - ◆ Dike Spill material with dry, inert absorbent material or dry clay soil or sand
 - ◆ Prevent spill material from entering Reservoir infrastructure and utilities by diking
 - ◆ Prevent spill material from entering drainage manholes and other openings by covering with rubber spill mats or diking
- (iv) Resume any effective action to contain, clean-up, or stop the flow of the spilled product.
- (e) The emergency response coordinator shall ensure that all environmental accidents involving contaminants shall be documented and reported to the Manitoba Environment according to The Dangerous Goods and Transportation Act Environmental Accident Report Regulation 439/87.

E2.5.7 Controlled Products

- (a) Materials classified as “Controlled Products” under Regulation 52/88, “Workplace Hazardous Materials Information System”, including amendments, are prohibited inside the Reservoir fenced area, unless the material will be directly employed in the Work.

E3. SHOP DRAWINGS

E3.1 Description

- E3.1.1 This Specification provides instructions for the preparation and submission of shop drawings.
 - (a) The term ‘shop drawings’ means drawings, diagrams, illustrations, schedules, performance charts, brochures, and other data, including Site erection drawings which are to be provided by the Contractor to illustrate details of a portion of the Work; and,
 - (b) Submit specified shop drawings to the Contract Administrator for review. All submissions must be in metric units. Where data is in imperial units, the correct metric equivalent shall also be shown on all submissions for Contract Administrator review.

E3.2 Shop Drawings

- E3.2.1 Original drawings shall be prepared by Contractor, Subcontractor, supplier, distributor or manufacturer to illustrate appropriate portion of Work including fabrication, layout, setting or erection details as specified in appropriate sections.
- E3.2.2 Shop drawings shall be submitted for the following items:
 - (a) Supply and installation of 3050 mm high three-strand barbed wire chain link fence and vehicle/pedestrian access gates as per E10.
 - (b) Detailing of steel reinforcement for concrete pipe bridge and pile foundations for vehicle access gates as per E9.
 - (c) Supply and installation of 450 mm dia. corrugated steel pipe culvert with bevelled ends as per E11.

E3.3 Contractor’s Responsibilities

- (a) Review shop drawings, product data and samples prior to submission and stamp and sign drawings indicating conformance to the Contract requirements.

- (b) Verify:
 - (i) Field Measurements;
 - (ii) Field Construction Criteria; and,
 - (iii) Catalogue numbers and similar data.
- (c) Coordinate each submission with requirements of Work and Contract Documents. Individual shop drawings will not be reviewed until all related drawings are available.
- (d) Notify Contract Administrator, in writing at time of submission, of deviations from requirements of Contract Documents.
- (e) Responsibility for deviations in submission from requirements of Contract Documents is not relieved by Contract Administrator's review of submission, unless Contract Administrator gives written acceptance of specified deviations.
- (f) Responsibility for errors and omissions in submission is not relieved by Contract Administrator's review of submittals.
- (g) Make any corrections required by the Contract Administrator and resubmit the required number of corrected copies of shop drawings. Direct specific attention in writing or on resubmitted shop drawings to revisions other than the corrections requested by the Contract Administrator on previous submission.
- (h) After Contract Administrator's review and return of copies, distribute copies to Subcontractors and others as appropriate.
- (i) Maintain one (1) complete set of reviewed shop drawings, filed by Specification Section Number, at the Site of the Work for use and reference of the Contract Administrator and Subcontractors.

E3.4 Submission Requirements

- (a) Schedule submissions at least fourteen (14) Calendar Days before dates reviewed submissions will be needed, and allow for a fourteen (14) Calendar Day period for review by the Contract Administrator of each individual submission and re-submission, unless noted otherwise in the Contract Documents.
- (b) Submit two (2) paper prints of shop drawings. The Contract Administrator will retain one (1) copy of all submittals and return one (1) copy to the Contractor.
- (c) Accompany submissions with transmittal letter containing:
 - (i) Date
 - (ii) Project title and Bid Opportunity number
 - (iii) Contractor's name and address
 - (iv) Number of each shop drawing, product data and sample submitted
 - (v) Specification Section, Title, Number and Clause
 - (vi) Drawing Number and Detail / Section Number
 - (vii) Other pertinent data
- (d) Submissions shall include:
 - (i) Date and revision dates
 - (ii) Project title and Bid Opportunity number
 - (iii) Name of:
 - Contractor
 - Subcontractor
 - Supplier
 - Manufacturer
 - Detailer (if applicable)
 - (iv) Identification of product or material
 - (v) Relation to adjacent structure or materials

- (vi) Field dimensions, clearly identified as such
- (vii) Specification section name, number and clause number or drawing number and detail / section number
- (viii) Applicable standards, such as CSA or CGSB numbers
- (ix) Contractor's stamp, initialled or signed, certifying review of submission, verification of field measurements and compliance with Contract Documents

E3.5 Other Considerations

- (a) Fabrication, erection, installation or commissioning may require modifications to equipment or systems to conform to the design intent. Revise pertinent shop drawings and resubmit.
- (b) Material and equipment delivered to the Site of the Works will not be paid for at least until pertinent shop drawings have been submitted and reviewed.
- (c) Incomplete shop drawing information will be considered as stipulated deductions for the purposes of progress payment certificates.
- (d) No delay or cost claims will be allowed that arise because of delays in submissions, re-submissions and review of shop drawings.

E4. EXPEDITED SHOP DRAWINGS

- E4.1 In order to expedite Shop Drawings with critical timeliness, the Lowest Responsive Bidder will be permitted, after receiving written approval from the Contract Administrator, to arrange for the preparation of Shop Drawings for the following items with critical timelines:
- (a) All items requiring Shop Drawings listed in E3.
- E4.2 If Award is made to the Lowest Responsive Bidder, then no specific payment for the preparation of Shop Drawings will be made.
- E4.3 If no contract is awarded, then the City of Winnipeg will pay the requested Bidder up to a maximum of one thousand dollars (\$1000.00) for the complete set of requested submissions noted above, for the preparation and delivery of Shop Drawings. Delivery of the Shop Drawings to the City and payment of the above amounts will constitute full and final consideration of each party to the other, and neither party will have any further liability to the other with respect to this Bid Opportunity.

E5. VERIFICATION OF WEIGHTS

- E5.1 All material which is paid for on a weight basis shall be weighed on a scale certified by Consumer & Corporate Affairs, Canada.
- E5.1.1 All weight tickets shall have the gross weight and the time and date of weighing printed by an approved electro/mechanical printer coupled to the scale.
 - E5.1.2 The tare weight and net weight may either be hand written or machine printed. All weights, scales and procedures shall be subject to inspection and verification by the Contract Administrator. Such inspection and verification may include, but shall not be limited to:
 - (a) Checking Contractor's scales for Consumer & Corporate Affairs certification seals.
 - (b) Observing weighing procedures.
 - (c) Random checking of either gross or tare weights by having such trucks or truck/trailer(s) combinations as the Contract Administrator shall select weighed at the nearest available certified scale.
 - (ii) Checking tare weights shown on delivery tickets against a current tare.
 - E5.1.3 No charge shall be made to The City for any delays or loss of production caused by such inspection and verification.

E5.2 The Contractor shall ensure that each truck or truck/trailer(s) combination delivering material which is paid for on a weight basis carries a tare not more than one (1) month old.

E5.2.1 The tare shall be obtained by weighing the truck or truck/trailer(s) combination on a certified scale and shall show:

- (a) Upon which scale the truck or truck/trailer(s) combination was weighed.
- (b) The mechanically printed tare weight.
- (c) The license number(s) of the truck and trailer(s).
- (d) The time and date of weighing.

E6. WATER OBTAINED FROM THE CITY

E6.1 Further to Clause 3.7 of CW-1120, the Contractor shall pay for all costs, including sewer charges, associated with obtaining water from the City in accordance with the Waterworks and Sewer By-laws.

E7. SECURITY AND ACCESS TO RESERVOIR SITE

E7.1 Description

E7.1.1 This Section describes the security requirements and access restrictions at the Wilkes Reservoir facility.

E7.1.2 The Wilkes Reservoir facility is a critical component of the City of Winnipeg Water Supply System. Work at, and in close proximity to the Reservoir and surrounding piping shall be undertaken with an abundance of caution.

E7.2 General Consideration for Work within the Wilkes Reservoir compound

E7.2.1 The Wilkes Reservoir compound contains numerous water conduits that are critical components of the City of Winnipeg Water Supply. Work around any of these pipelines shall be well planned and executed to ensure that the pipelines are not subjected to construction related loads, including excessive vibrations and concentrated or asymmetrical lateral loads during backfill placement.

E7.2.2 Under no circumstances will traffic or equipment be permitted on the buried Wilkes Reservoir structure, embankment slopes, or adjacent valve chambers.

E7.2.3 Employees of the Contractor or any Subcontractor that fail to comply with the conditions for working at the Site shall be promptly removed from the Site.

E7.2.4 The Contractor is advised that **all personnel working within the Reservoir shall obtain the security clearances outlined in D10** unless otherwise specified in the Specifications.

E7.3 Keys and Access to Reservoir

E7.3.1 The Contractor will be issued keys for access to Site under the following conditions:

- (a) The Contractor shall provide the name and contact information for the person in charge and responsible for the Site.
- (b) The Contractor is to coordinate with the City of Winnipeg on the number of keys that will be required for the Contractor's employees and Subcontractors.
- (c) The Contractor is to return all keys prior to Substantial Performance. On return of all keys including damaged keys, a ten thousand dollar (\$10,000.00) holdback will be released.
- (d) The Contractor is to immediately report any lost keys and return any damaged or non-functioning keys for replacement.

E7.4 Site Security

- E7.4.1 The Contractor shall provide a security guard stationed at the north Reservoir access gate off of Hurst Way during working hours. The guard shall be from a bonded security company and shall be responsible for validating the security clearances of all personnel accessing the Site.
- E7.4.2 The Contractor shall be responsible for providing all facilities, including shelter and toilet facilities, as required for the security personnel.
- E7.4.3 The Contractor is required to take measures necessary to secure the Work areas when the Work areas are vacated. When security personnel and crews are not within visual range of Reservoir access gates, the gates shall be closed and locked.
- E7.4.4 Temporary security fencing specified in E8 shall be maintained in working order, shall be free of gaps, and any damage shall be repaired by the Contractor immediately upon discovery in accordance with the requirements of E8.
- E7.4.5 On a daily basis during the course of Work, the Contractor shall communicate with the **City of Winnipeg Deacon Control Centre at 204-986-4781** at the beginning of working hours and at the end of working hours, as to the status of the Site security, and in particular, when the Contractor staff leaves the Site.
- E7.4.6 The Contractor is not required to provide security services when not on-Site.
- E7.5 Measurement and Payment
- E7.5.1 Security and Access to Reservoir Site will be considered incidental to E8 "Mobilization and Demobilization" and no additional measurement or payment will be made.

E8. MOBILIZATION AND DEMOBILIZATION

- E8.1 Description.
- E8.1.1 This Specification shall cover all operations relating to the mobilization and demobilization of the Contractor to the Site, as specified herein.
- E8.1.2 The Work to be done by the Contractor under this Specification shall include the furnishing of all superintendence, overhead, labour, materials, equipment, tools, supplies, and all things necessary for and incidental to the satisfactory performance and completion of all works hereinafter specified.
- E8.2 Scope of Work
- E8.2.1 The Work under this Specification shall include but not be limited to:
- (a) Obtaining security clearances for all personnel working on-Site in accordance with D10.
 - (b) Preconstruction inspection and record of site conditions.
 - (c) Security services at the north Reservoir gate during work hours.
 - (d) Mobilizing and demobilizing on-Site Work facilities.
 - (e) Supply and installation of temporary security fence and temporary snow fence as shown on the Drawings.
 - (f) Utility locates.
 - (g) Locating the 1500 mm by-pass pipe and other utilities passing beneath the proposed concrete pipe bridge by soft digging.
 - (h) Restoration of existing facilities.
- E8.3 General
- E8.3.1 The Wilkes Reservoir facility contains numerous pieces of infrastructure that are critical components of the City of Winnipeg water supply. Work at the Reservoir shall be well planned and executed to ensure that any structurally sensitive infrastructure, such as

buried piping, is not subjected to construction related loads, including excessive vibrations and asymmetrical lateral loads.

E8.4 References

E8.4.1 All related Specifications and reference Standards are in accordance with the most current issue or latest revision:

- (a) City of Winnipeg's Specification CW-1130 (latest edition) – Site Requirements.
- (b) City of Winnipeg's Specification CW-3550 (latest edition) – Chain Link and Drift Control Fence.
- (c) D10 Criminal Record Search Certificate and Public Verification Check
- (d) D20 Damage to Existing Structures and Property.
- (e) E7 Security and Access to Reservoir Site.

E8.5 Materials

E8.5.1 The Contractor shall be responsible for the supply, safe storage and handling of all materials as set forth in this Specification. All materials are to be handled in a careful and workmanlike manner, to the satisfaction of the Contract Administrator.

E8.5.2 All materials supplied under this Specification shall be of a type approved by the Contract Administrator and shall be subject to inspection and testing by the Contract Administrator.

E8.5.3 The Contractor's Site supervisor is required to carry, at all times, a cellular telephone, with voicemail.

E8.5.4 The Contractor shall provide suitable portable toilet facilities on-Site for his use. The Wilkes Reservoir Pumping Station will not be available for washroom use.

E8.5.5 All materials and protection systems installed as part of this Specification shall be removed as part of the final clean-up unless they are to form a part of the permanent Works.

E8.6 Equipment

E8.6.1 All equipment shall be of a type acceptable to the Contract Administrator, shall conform to any requirements listed in these Specifications for the type of work being performed, and shall be kept in good working order.

E8.7 Temporary Snow Fence

E8.7.1 The Contractor shall install temporary snow fencing, otherwise known as drift control fencing, in accordance with CW-3550 along the east side of the 1500 mm dia. by-pass pipe as shown on the Drawings. The purpose of the snow fence is to ensure that personnel and equipment maintain a safe working distance from the 1500 mm dia. by-pass pipe. The snow fence shall run parallel with the by-pass pipe and extend to the northern limits of the existing chain link fence.

E8.7.2 The snow fencing shall be installed a minimum of 5 metres to the east side of the 1500 mm dia. by-pass pipe centreline.

E8.7.3 The Contractor shall install temporary snow fencing around utilities and other critical Reservoir infrastructure components as directed by the Contract Administrator.

E8.7.4 The Contractor will not be permitted to commence any other Work activities until the snow fence is in place.

E8.7.5 The Contractor shall ensure that the snow fence remains in a good, working condition throughout the Works and shall immediately repair any damage to the temporary security fence upon discovery of damage.

E8.8 Temporary Security Fence

E8.8.1 Temporary security fence shall be:

- (a) M500 ANTI-CLMB supplied by:
Wallace and Wallace
90 Lawson Crescent
Winnipeg, Manitoba R3P 2H8

- E8.8.2 The temporary security fence shall be installed as shown the on the Drawings prior to removal of the existing security fence along the south side of the proposed laydown. The temporary security fence shall remain in place until the new security fence and vehicle access gate is installed and the south side of the laydown area is secured.
- E8.8.3 The Contractor shall ensure that the temporary security fence remains in a good, working condition throughout the Works and shall immediately repair any damage to the temporary security fence upon discovery of damage.
- E8.9 Utility Locates
- E8.9.1 The Contractor shall be responsible for contacting the appropriate Utility Authorities to locate all utilities prior to commencing any excavation works, or any other works that may potentially damage buried utilities.
- E8.9.2 The Contractor shall be responsible for all costs that may be incurred for repair/rectification of any damage caused to the existing buried utilities as a result of the Contractor's operations, as determined by the Contract Administrator.
- E8.9.3 The Contractor shall visually locate the utilities buried beneath the proposed by-pass pipe bridge by means of soft-digging in accordance with this Specification.
- E8.10 Soft Digging
- E8.10.1 The 1500 mm by-pass pipe, 450 mm LDS and abandoned gas line passing beneath the proposed concrete pipe bridge shall be located by means of soft digging.
- E8.10.2 The extent of the soft digging shall allow the centerline of the utilities described herein to be accurately determined. The Contractor is advised that the by-pass line is protected with 50 mm of rigid insulation placed overtop the pipe. The Contractor shall remove only enough insulation required to locate the pipe, and shall repair the insulation to the satisfaction of the Contract Administrator prior to backfilling the hole.
- E8.10.3 Soft digging shall be performed in the presence of the Contract Administrator.
- E8.10.4 Construction Methods
- (a) Removal of earthen material to locate the utilities shall be completed by means of high pressure water spray (hydro excavation) and the recovery of evacuated material by vacuum type means or equivalent method as approved by the Contract Administrator.
- (b) Hydro excavation unit shall be capable of maintaining a minimum working pressure of 10,000 psi, at a rate of flow of 10 to 12 gallons per minute. Unit should be adjustable, so as to provide adequate pressure to remove earthen material identified by the Contract Administrator.
- (c) Spray head shall be equipped with a rotating nozzle, in order to provide a wider path of cut.
- (d) The recovery of excavated material shall be done using vacuum type method, or other method as approved by the Contract Administrator.
- (e) The recovery of material shall follow immediately behind excavation to avoid excavated areas from filling with excavated material.
- (f) The use of mechanical sweepers will not be allowed.
- (g) Dispose of material in accordance with Section 3.4 of CW-1130.
- E8.10.5 Backfill of Hydro Excavated Hole

- (a) The Contractor shall be responsible for replacing the rigid insulation removed to locate the by-pass pipe and for backfilling the hydro excavated hole upon locating the utilities described herein, to the approval of the Contract Administrator.

E8.11 Restoration of Existing Facilities

- E8.11.1 Upon completion of the Work and demobilization, the Contractor shall restore the Site in accordance with D20. The Contractor shall be fully responsible to restore the project Site to the original, documented conditions prior to construction, unless as approved by the Contract Administrator.

E8.12 Quality Control

E8.12.1 Inspection

- (a) All workmanship and all materials furnished and supplied under this Specification are subject to close and systematic inspection and testing by the Contract Administrator including all operations from the selection and production of materials through to final acceptance of the specified Work.
- (b) The Contractor shall be wholly responsible for the control of all operations incidental thereto, notwithstanding any inspection or acceptance that may have been previously given.
- (c) The Contract Administrator reserves the right to reject any materials or Works which are not in accordance with the requirements of this Specification.

E8.12.2 Access

- (a) The Contractor shall allow the Contract Administrator free access to all parts of the Work at all times. The Contractor shall supply samples to the Contract Administrator or his inspector for testing purposes as required. There will be no charge to the City for samples taken.

E8.13 Measurement and Payment

- E8.13.1 Mobilization and demobilization will not be measured and will be paid for at the Contract Lump Sum Price for "Mobilization and Demobilization", which price shall be payment in full for performing all operations herein described and all other items incidental to the Work included in this Specification and accepted by the Contract Administrator.
- E8.13.2 Mobilization and demobilization will be paid for at a percentage of the Contract Lump Sum Price, measured as specified herein. These percentages shall be as follows:
 - (a) Thirty percent (30%) when the Contract Administrator is satisfied that construction has commenced.
 - (b) Sixty percent (60%) when Substantial Performance has been met.
 - (c) Ten percent (10%) upon completion of the project.

E9. CONCRETE PIPE BRIDGE

E9.1 Description.

- E9.1.1 Notwithstanding and in addition to CW-3310, this Specification shall cover all operations related to the construction of the 1500 mm by-pass pipe bridge consisting of a reinforced cast-in-place concrete slab on compacted granular fill.
- E9.1.2 Unless otherwise indicated in this Specification, materials, submittals, construction methods and quality assurance shall conform to the requirements of CW-3310.
- E9.1.3 The Work to be done by the Contractor under this Specification shall include the furnishing of all superintendence, overhead, labour, materials, equipment, tools, supplies, and all things necessary for and incidental to the satisfactory performance and completion of all works hereinafter specified.

E9.2 Scope of Work

E9.2.1 The Work under this Specification shall include but not be limited to:

- (a) Removal of concrete curb along Willson Place
- (b) Excavation.
- (c) Installation and compaction of granular base material.
- (d) Supply and installation of voidform.
- (e) Supply and placement of reinforcing steel.
- (f) Supply and placement of structural concrete.

E9.3 General

E9.3.1 Access to the proposed laydown area to be constructed requires crossing a 1500 mm bypass pipe, in addition to other utilities, located parallel to Willson Place along the south edge of the Reservoir as shown on the Drawings. This pipe is a critical piece of Reservoir infrastructure and, must be bridged with a thickened slab referred to as the concrete pipe bridge.

E9.4 References

E9.4.1 All related Specifications and reference Standards are in accordance with the most current issue or latest revision:

- (a) ASTM A767/A767M – Standard Specification for Zinc-Coated (Galvanized) Steel Bars for Concrete Reinforcement.
- (b) ASTM C131/C131M – Standard Test Method for Resistance to Degradation of Small-Size Course Aggregate by Abrasion and Impact in the Los Angeles Machine.
- (c) ASTM C260/C260M – Standard Specification for Air-Entraining Admixtures for Concrete.
- (d) ASTM C494/C494M – Standard Specification for Chemical Admixtures for Concrete.
- (e) ASTM C1017/C1017M – Standard Specification for Chemical Admixtures for Use in Producing Flowing Concrete.
- (f) CAN/CSA A23.1 – Concrete Materials and Methods of Concrete Construction.
- (g) CAN/CSA A3000 – Cementitious Materials Compendium.
- (h) CAN/CSA G30.18 – Carbon Steel Bars for Concrete Reinforcement.
- (i) Reinforcing Steel Institute of Canada (RSIC), Manual of Standard Practice
- (j) City of Winnipeg's Specification CW-3310 (latest edition) – Portland Cement Concrete Pavement Works.
- (k) City of Winnipeg's Specification CW-3130 (latest edition) – Supply and Installation of Geotextile Fabrics.
- (l) E3 Shop Drawings.
- (m) E4 Expedited Shop Drawings.
- (n) E8 Mobilization and Demobilization.

E9.5 Submittals

E9.5.1 Voidform

- (a) The Contractor shall submit the following voidform information to the Contract Administrator for approval at least three (3) Business Days prior to voidform placement.
 - (i) Product data sheets;
 - (ii) Proposed thickness of voidform; and,

- (iii) Installation procedure.

E9.5.2 Concrete Mix Design

- (a) The Contractor shall submit a concrete mix design statement to the Contract Administrator that reflects the specified performance properties of the concrete. The mix design statement shall contain all the information as outlines on the concrete mix design statement as shown on the Manitoba Ready Mix Concrete Association website (www.mrmca.com). In addition, the mix design statement must indicate the expected method of placement (buggies, chute, or pump) methods are to be used; the method of placement must include a clear description of the pumping methods (line, vertical drop, length of hose, etc.).
- (b) The Supplier shall submit directly, in confidence, to the City of Winnipeg, the concrete mix designs for the concrete type specified herein. The purpose of this confidential submission will be for record keeping purposes and may be used as information related to supplementary testing and investigation of suspected defective concrete. The City of Winnipeg will advise the Supplier if the in information needs to be released to third parties. The concrete mix design shall contain a description of the constituents and proportions, and at the minimum the following:
 - (i) Cementitious content in kilograms per cubic metre or equivalent units, and type of cementitious materials;
 - (ii) Designated size, or sizes, of aggregates, and the gradation;
 - (iii) Aggregate source location(s);
 - (iv) Weights of aggregates in kilograms per cubic metre or equivalent units. Mass of aggregates is saturated surface dry basis;
 - (v) Maximum allowable water content in kilograms per cubic metre or equivalent units and the water/cementitious ratio;
 - (vi) The limits for slump;
 - (vii) The limits for air content; and,
 - (viii) Quantity of other admixtures.
- (c) The concrete mix design statement must be received by the Contract Administrator a minimum of ten (10) Business Days prior to the scheduled commencement of concrete placement. The concrete mix design must be received by the City of Winnipeg a minimum of five (5) Business Days prior to the scheduled commencement of concrete placement.
 - (i) The mix design statement shall also include the expected slump measurement. The tolerances for acceptance of slump measurements in the field, by the Contract Administrator, shall be in accordance to CAN/CSA A23.1 Clause 4.3.2.3.2.
 - (ii) Any change in the constituent materials of any approved mix design shall require submission of a new concrete mix design statement, mix design, and mix design test data. If, during the progress of the Work, the concrete supplied is found to be unsatisfactory for any reason, including poor workability, the Contract Administrator may require the Contractor to make any necessary adjustments and associated resubmissions.

E9.5.3 Reinforcing Steel

- (a) The Contractor shall submit Shop Drawings (including bar lists) in accordance with E3/E4 and the latest edition of the Reinforcing Steel Manual of Standard Practice by the Reinforcing Steel Institute of Canada (RSIC).

E9.6 Materials

E9.6.1 The Contractor shall be responsible for the supply, safe storage, and handling of all materials set forth in this Specification.

E9.6.2 Handling and Storage of Materials

- (a) All materials shall be handled and stored in a careful and workmanlike manner, to the satisfaction of the Contract Administrator. Storage of materials shall be in accordance with CAN/CSA A23.1.

E9.6.3 Testing and Approval

- (a) All materials supplied under this Specification shall be subject to inspection and testing by the Contract Administrator or by the Testing Laboratory designated by the Contract Administrator. There shall be no charge to the City for any materials taken by the Contract Administrator for testing purposes.
- (b) All materials shall be approved by the Contract Administrator at least seven (7) days before any construction is undertaken. If, in the opinion of the Contract Administrator, such materials in whole or in part, do not conform to the Specifications detailed herein or are found to be defective in manufacture or have become damaged in transit, storage, or handling operations, then such materials shall be rejected by the Contract Administrator and replaced by the Contractor at his own expense.

E9.6.4 Cement

- (a) Cement shall be Type HS or HSb, high-sulphate-resistant hydraulic cement, conforming to the requirements of CAN/CSA A23.1.

E9.6.5 Concrete

- (a) The Contractor shall be responsible for the design and performance of all concrete mixes supplied under this specification. Ready mix concrete shall have the following minimum properties in accordance with CAN/CSA A23.1.
 - (i) Class of Exposure: S-1
 - (ii) Compressive Strength @ 56 days = 35 MPa
 - (iii) Water / Cementing Materials Ratio = 0.4
 - (iv) Air Content: Category 2 per Table 4 of CAN/CSA A23.1 (4-7%)
 - (v) Cement – shall be as specified in E9.6.4.
- (b) Mix design for ready mix concrete shall be submitted to Contract Administrator at least two (2) weeks prior to concrete placing operations.
- (c) The workability of each concrete mix shall be consistent with the Contractor's placement operations.
- (d) The temperature of the concrete shall be between 15°C and 25°C at discharge. Temperature requirements for concrete containing silica fume shall be between 10°C and 18°C at discharge unless otherwise approved by the Contract Administrator.
- (e) Concrete materials susceptible to frost damage shall be protected from freezing.

E9.6.6 Coarse Aggregate

- (a) The Contractor shall be responsible for testing the coarse aggregates to establish conformance to these specifications, and the results of these tests shall be provided to the Contract Administrator if requested. All aggregates shall comply with CAN/CSA A23.1.
- (b) The maximum nominal size of coarse aggregate shall be sized to suit the Contractor's mix design. Gradation shall be in accordance with CAN/CSA A23.1, Table 11, Group 1. The coarse aggregate shall satisfy the Standard Requirements specified in CAN/CSA A23.1, Table 12, "Concrete Exposed to Freezing and Thawing".
- (c) Coarse aggregate shall consist of crushed stone or gravel or a combination thereof, having hard, strong, durable particles free from elongation, dust, shale, earth, vegetable matter or other injurious substances. Coarse aggregate shall be clean and free from alkali, organic or other deleterious matter; and shall have an absorption not exceeding 2.25%.
- (d) The aggregate retained on the 5 mm sieve shall consist of clean, hard, tough, durable, angular particles with a rough surface texture, and shall be free from organic material,

adherent coatings of clay, clay balls, and excess of thin particles or any other extraneous material.

- (e) Coarse aggregate when tested for abrasion in accordance with ASTM C131 shall not have a loss greater than thirty percent (30%).
- (f) Tests of the coarse aggregate shall not exceed the limits for standard for requirements prescribed in CAN/CSA A23.1, Table 12, for concrete exposed to freezing and thawing.

E9.6.7 Fine Aggregate

- (a) The Contractor shall be responsible for testing the fine aggregates to establish conformance to these specifications, and the results of these tests shall be provided to the Contract Administrator if requested. All aggregates shall comply with CAN/CSA A23.1.
- (b) Fine aggregate shall meet the grading requirements of CAN/CSA A23.1, Table 10, Gradation FA1.
- (c) Fine aggregate shall consist of sand, stone, screenings, other inert materials with similar characteristics or a combination thereof, having clean, hard, strong, durable, uncoated grains free from injurious amounts of dust, lumps, shale, alkali, organic matter, loam, or other deleterious substances.
- (d) Tests of the fine aggregate shall not exceed the limits for standard requirements prescribed in CAN/CSA A23.1, Table 12.

E9.6.8 Cementing Materials

- (a) Cementing materials shall conform to the requirements of CAN/CSA A3001.
- (b) Silica Fume
 - (i) Should the Contractor choose to include silica fume in the concrete mix design, it shall not exceed eight percent (8%) by mass of cement.
- (c) Fly Ash
 - (i) Fly ash shall be Type C1 or Type F and shall not exceed twenty-five percent (25%) by mass of cement.
- (d) Cementitious materials shall be stored in a suitable weather-tight building that shall protect these materials from dampness and other destructive agents. Cementitious materials that have been stored for a length of time resulting in the hardening or formation of lumps shall not be used in the Work.

E9.6.9 Admixtures

- (a) Air entraining admixtures shall conform to the requirements of ASTM C260.
- (b) Chemical admixtures shall conform to the requirements of ASTM C494 or C1017 for flowing concrete.
- (c) All admixtures shall be compatible with all other constituents. The addition of calcium chloride, accelerators, and air-reducing agents will not be permitted, unless otherwise approved by the Contract Administrator.
- (d) Appropriate low range water reducing and/or superplasticizing admixtures shall be used in concrete containing silica fume. Approved retarders or set controlling admixtures may be used for concrete containing silica fume.

E9.6.10 Water

- (a) Water used for mixing concrete shall be clean and free from injurious amounts of oil, acid, alkali, organic matter, or other deleterious substances. It shall be equal to potable water in physical and chemical properties.

E9.6.11 Concrete Supply

- (a) Concrete shall be proportioned, mixed, and delivered in accordance with the requirements of CAN/CSA A23.1, except that the transporting of ready mixed

concrete in non-agitating equipment will not be permitted unless prior written approval is received from the Contract Administrator.

- (b) Unless otherwise directed by the Contract Administrator, the discharge of ready mixed concrete shall be completed within 90 minutes after the introduction of the mixing water to the cementing materials and aggregates.
- (c) The Contractor shall maintain all equipment used for handling and transporting the concrete in a clean condition and proper working order.

E9.6.12 Reinforcing Steel

- (a) Reinforcing steel shall be deemed to include all reinforcing bars, tie-bars, and dowels.
- (b) All reinforcing steel shall conform to the requirements of CAN/CSA Standard G30.18, Grade 400 W, Billet-Steel Bars for Concrete Reinforcement. All reinforcing steel shall be new deformed billet steel bars. All bars, including ties, shall be hot-dip galvanized in accordance with ASTM A767 for a minimum net retention of 610 g/m². Reinforcing steel supply and installation will be incidental to construction of concrete pile foundation and no separate payment will be made.

E9.6.13 Voidform

- (a) Voidform shall be:
 - (i) Plasti-Fab GeoVoid® Compressible Fill supplied by:
 Plasti-Fab Manitoba
 2485 Day Street
 Winnipeg, Manitoba R2C 5G2
- (b) The Contractor shall be responsible for selecting the appropriate thickness of voidform and shall submit the product information to the Contract Administrator at least three (3) Business Days prior to placement for approval, in accordance with this Specification.
- (c) The voidform shall, at a minimum, meet the following requirements:
 - (i) Provide a 100 mm void underneath the concrete slab under loaded conditions.
 - (ii) Support a 9.6 kPa (200 psf) dead load and a 2.4 kPa (50 psf) live load during placement of concrete. Voidform shall not exert more than 13.8 kPa (288 psf) on the subgrade during concrete placement.

E9.6.14 Granular Fill

- (a) All granular backfill shall be clean and free from organic material, meeting the following gradation requirements:

| CANADIAN METRIC SIEVE SIZE | PERCENT PASSING BY WEIGHT |
|-------------------------------|------------------------------|
| 50 000 | 100 |
| 20 000 | 75 - 100 |
| 5 000 | 45 - 85 |
| 2 500 | 35 - 55 |
| 315 | 15 - 35 |
| 160 | 5 - 20 |
| 80 | 0 - 7 |

- (a) Backfill material shall be free of frozen lumps and shall be placed and compacted in an unfrozen state. Backfill shall not be placed on frozen subsoil.
- (b) Any backfill material that does not meet the gradation requirements of this Specification shall be removed and replaced by the Contractor at his own expense, to the satisfaction of the Contract Administrator.

E9.6.15 Separation Geotextile Fabric

- (a) Supply of separation geotextile fabric shall be in accordance with CW-3130.

E9.7 Buried Utilities

- E9.7.1 Construction of the concrete pipe bridge shall not commence until the Contractor has obtained clearance from the appropriate Utility Authorities including but not limited to Manitoba Hydro, MTS, and Shaw in accordance with E8.
- E9.7.2 Construction of the concrete pipe bridge shall not commence until the Contractor has accurately located the centerlines of the utilities passing beneath the proposed concrete pipe bridge by soft digging in accordance with E8.
- E9.7.3 The concrete pipe bridge shall be located as shown on the Drawings. Modification to the location of the concrete pipe bridge may be required if the 1500 mm by-pass pipe is found to be located in a different position than that shown on record drawings during soft digging.

E9.8 Construction Methods

E9.8.1 Concrete Curb Removal

- (a) Saw cut the existing curb along Willson Place to suit the construction of the concrete pipe bridge. The concrete curb shall be horizontally saw cut approximately 40 mm above the existing Willson Place gutter unless otherwise directed by the Contract Administrator.

E9.8.2 Excavation

- (a) Excavate to the limits of excavation shown on the Drawings. The Contractor shall ensure that the selected method of excavation does not compromise the 1500 mm by-pass pipe or other buried utilities below.
- (b) Where there is less than 1.6 metres of earth cover over the by-pass pipe, or any other pipeline, and further excavation is required either adjacent to or over the pipeline, utilize only smooth edged excavation buckets, soft excavation or hand excavation techniques. Where there is less than 1 metre of cover over a pipeline, carefully expose the pipe by hand excavation to delineate the location and depth of the pipe, and provide full time supervision of the excavation.
- (c) Offset backhoe or excavation equipment from the pipeline a minimum of 3 metres from the pipe centerline to carry out excavations.
- (d) Equipment shall not be allowed to operate while positioned directly over a pipeline.

E9.8.3 Separation Geotextile Fabric

- (a) Install separation geotextile fabric as shown on the Drawings in accordance with CW-3130.

E9.8.4 Voidform

- (a) Install voidform in accordance with the manufacturer/suppliers recommendations.
- (b) Form edges of voidform with 13 mm (1/2") pressure treated plywood.
- (c) Unless otherwise instructed by the voidform manufacturer/supplier, cover voidform with 10 mil polypropylene and Masonite sheeting prior to concrete placement.

E9.8.5 Granular Backfill

- (a) The Contract Administrator shall be notified at least one (1) Business Day in advance of any backfilling operations.
- (b) All granular backfill material shall be supplied, placed, and compacted in lifts of 150 mm (maximum) to a minimum of ninety-eight percent (98%) of Standard Proctor Dry Density. Lifts shall be brought up on all sides at the same time.
- (c) The Contractor shall be required to provide necessary water or equipment during compaction of backfill material to achieve the required densities.
- (d) All compaction of granular backfill for the concrete pipe bridge shall be completed using small plate compactors or tamping rammers. The use of vibratory drum rollers or any other machine mounted equipment will not be permitted.

- (e) The Standard Proctor Density for granular shall be determined at the optimum moisture content in accordance with standard laboratory Proctor Compaction Test Procedure.
- (f) The field density of the compacted layers shall be verified by Field Density Tests in accordance with ASTM Standard, Test for Density of Soil in Place by the Sand-Cone Method.
- (g) The frequency and number of tests to be made shall be as determined by the Contract Administrator.
- (h) Any backfill material that does not meet the compaction requirements of this Specification shall be removed and replaced by the Contractor at his own expense, to the satisfaction of the Contract Administrator.

E9.8.6 Reinforcing Steel

- (a) Reinforcing steel shall be placed in accordance with CW-3310.

E9.8.7 Concrete

- (a) Concrete shall be placed, finished, and cured in accordance with CW-3310 unless otherwise specified herein.
- (b) Cold Weather Concreting
 - (i) Protection of concrete shall be considered incidental to its placement. The temperature of the concrete shall be maintained at or above 10°C for a minimum of three (3) Calendar Days or until the concrete has reached a minimum compressive strength of 20 MPa, by whatever means are necessary. Concrete damaged as a result of inadequate protection against weather conditions shall be removed and replaced by the Contractor at his own expense. Also, concrete allowed to freeze prior to the three (3) Calendar Days will not be accepted for payment.

E9.9 Quality Control

E9.9.1 All workmanship and all materials furnished and supplied under this Specification are subject to close and systematic inspection and testing by the Contract Administrator, including all operations from the selection and production of materials, through to final acceptance of the Work. The Contractor shall be wholly responsible for the control of all operations incidental thereto notwithstanding any inspection or approval that may have been previously given. The Contract Administrator reserves the right to reject any materials or Works that are not in accordance with the requirements of this Specification.

E9.9.2 The Contractor shall be responsible for making a thorough inspection of materials to be supplied under this Contract. All material shall be free of surface imperfections and other defects.

E9.10 Use of Concrete Pipe Bridge After Construction

E9.10.1 The Contractor is advised that he shall not move equipment over, or otherwise load in anyway, the concrete pipe bridge until it has achieved a compressive concrete strength of at least 25 MPa. The Contractor shall submit compressive strength test reports to the Contract Administrator showing that the concrete strength has achieved 25 MPa and shall request written confirmation that he may begin using the concrete pipe bridge for access to the Reservoir.

E9.11 Measurement and Payment

E9.11.1 Construction of the by-pass pipe bridge, including curb removal, excavation, granular base, geotextile, voidform, reinforcement and concrete, will be measured on an area basis and will be paid for at the Contract Unit Price per square metre for "Concrete Pipe Bridge", which price shall be payment in full for performing all operations herein described and all other items incidental to the Work included in this Specification and accepted by the Contract Administrator.

E10. THREE-STRAND BARBED WIRE CHAIN LINK FENCE AND GATES

E10.1 Description.

- E10.1.1 Notwithstanding and in addition to CW-3550, this Specification shall cover all operations related to the supply and installation of the new three-strand barbed wire chain link fence and gates.
- E10.1.2 Unless otherwise indicated in this Specification, materials, submittals, construction methods and quality assurance shall conform to the requirements of CW-3550.
- E10.1.3 The Work to be done by the Contractor under this Specification shall include the furnishing of all superintendence, overhead, labour, materials, equipment, tools, supplies, and all things necessary for and incidental to the satisfactory performance and completion of all works hereinafter specified.

E10.2 Scope of Work

- E10.2.1 The Work under this Specification shall include but not be limited to:
- (a) Installation of fence posts.
 - (b) Construction of cast-in-place concrete vehicle gate piles.
 - (c) Supply and installation of 3.050 m high three-strand barbed wire chain link fence
 - (d) Supply and installation of vehicle access gates and pedestrian access gate in 3.050 m high three-strand barbed wire chain link fence.

E10.3 References

- E10.3.1 All related Specifications and reference Standards are in accordance with the most current issue or latest revision:
- (a) ASTM A767/A767M – Standard Specification for Zinc-Coated (Galvanized) Steel Bars for Concrete Reinforcement.
 - (b) ASTM C131/C131M – Standard Test Method for Resistance to Degradation of Small-Size Course Aggregate by Abrasion and Impact in the Los Angeles Machine.
 - (c) ASTM C260/C260M – Standard Specification for Air-Entraining Admixtures for Concrete.
 - (d) ASTM C494/C494M – Standard Specification for Chemical Admixtures for Concrete.
 - (e) ASTM C1017/C1017M – Standard Specification for Chemical Admixtures for Use in Producing Flowing Concrete.
 - (f) CAN/CSA A23.1 – Concrete Materials and Methods of Concrete Construction.
 - (g) CAN/CSA A3000 – Cementitious Materials Compendium.
 - (h) CAN/CSA G30.18 – Carbon Steel Bars for Concrete Reinforcement.
 - (i) Reinforcing Steel Institute of Canada (RSIC), Manual of Standard Practice
 - (j) City of Winnipeg's Specification CW-3550 (latest edition) – Chain Link and Drift Control Fence.
 - (k) E3 Shop Drawings.
 - (l) E4 Expedited Shop Drawings.
 - (m) E8 Mobilization and Demobilization.

E10.4 Submittals

- E10.4.1 Concrete Mix Design
- (a) The Contractor shall submit a concrete mix design statement to the Contract Administrator that reflects the specified performance properties of the concrete. The mix design statement shall contain all the information as outlines on the concrete mix

design statement as shown on the Manitoba Ready Mix Concrete Association website (www.mrmca.com). In addition, the mix design statement must indicate the expected method of placement (buggies, chute, or pump) methods are to be used; the method of placement must include a clear description of the pumping methods (line, vertical drop, length of hose, etc.).

- (b) The Supplier shall submit directly, in confidence, to the City of Winnipeg, the concrete mix designs for the concrete type specified herein. The purpose of this confidential submission will be for record keeping purposes and may be used as information related to supplementary testing and investigation of suspected defective concrete. The City of Winnipeg will advise the Supplier if the information needs to be released to third parties. The concrete mix design shall contain a description of the constituents and proportions, and at the minimum the following:
 - (i) Cementitious content in kilograms per cubic metre or equivalent units, and type of cementitious materials;
 - (ii) Designated size, or sizes, of aggregates, and the gradation;
 - (iii) Aggregate source location(s);
 - (iv) Weights of aggregates in kilograms per cubic metre or equivalent units. Mass of aggregates is saturated surface dry basis;
 - (v) Maximum allowable water content in kilograms per cubic metre or equivalent units and the water/cementitious ratio;
 - (vi) The limits for slump;
 - (vii) The limits for air content; and,
 - (viii) Quantity of other admixtures.
- (c) The concrete mix design statement must be received by the Contract Administrator a minimum of ten (10) Business Days prior to the scheduled commencement of concrete placement. The concrete mix design must be received by the City of Winnipeg a minimum of five (5) Business Days prior to the scheduled commencement of concrete placement.
 - (i) The mix design statement shall also include the expected slump measurement. The tolerances for acceptance of slump measurements in the field, by the Contract Administrator, shall be in accordance to CAN/CSA A23.1 Clause 4.3.2.3.2.
 - (ii) Any change in the constituent materials of any approved mix design shall require submission of a new concrete mix design statement, mix design, and mix design test data. If, during the progress of the Work, the concrete supplied is found to be unsatisfactory for any reason, including poor workability, the Contract Administrator may require the Contractor to make any necessary adjustments and associated resubmissions.

E10.4.2 Reinforcing Steel

- (a) The Contractor shall submit Shop Drawings (including bar lists) in accordance with E3/E4 and the latest edition of the Reinforcing Steel Manual of Standard Practice by the Reinforcing Steel Institute of Canada (RSIC).

E10.4.3 Three-Strand Barbed Wire Chain link Fence and Gates

- (a) The Contractor shall submit Shop Drawings in accordance with E3/E4, including but not limited to, Drawings for the 3050 mm high three-strand barbed wire chain link fence, pedestrian access gate, vehicle access gates, and tamper proof locking mechanisms.

E10.5 Materials

E10.5.1 The Contractor shall be responsible for the supply, safe storage, and handling of all materials set forth in this Specification.

E10.5.2 Handling and Storage of Materials

- (a) All materials shall be handled and stored in a careful and workmanlike manner, to the satisfaction of the Contract Administrator. Storage of materials shall be in accordance with CAN/CSA A23.1.

E10.5.3 Testing and Approval

- (a) All materials supplied under this Specification shall be subject to inspection and testing by the Contract Administrator or by the Testing Laboratory designated by the Contract Administrator. There shall be no charge to the City for any materials taken by the Contract Administrator for testing purposes.
- (b) All materials shall be approved by the Contract Administrator at least seven (7) days before any construction is undertaken. If, in the opinion of the Contract Administrator, such materials in whole or in part, do not conform to the Specifications detailed herein or are found to be defective in manufacture or have become damaged in transit, storage, or handling operations, then such materials shall be rejected by the Contract Administrator and replaced by the Contractor at his own expense.

E10.5.4 Cement

- (a) Cement shall be Type HS or HSb, high-sulphate-resistant hydraulic cement, conforming to the requirements of CAN/CSA A23.1.

E10.5.5 Concrete

- (a) The Contractor shall be responsible for the design and performance of all concrete mixes supplied under this specification. Ready mix concrete shall have the following minimum properties in accordance with CAN/CSA A23.1.
 - (i) Class of Exposure: S-1
 - (ii) Compressive Strength @ 56 days = 35 MPa
 - (iii) Water / Cementing Materials Ratio = 0.4
 - (iv) Air Content: Category 2 per Table 4 of CAN/CSA A23.1 (4-7%)
 - (v) Cement – shall be as specified in E10.5.4.
- (b) Mix design for ready mix concrete shall be submitted to Contract Administrator at least two (2) weeks prior to concrete placing operations.
- (c) The workability of each concrete mix shall be consistent with the Contractor's placement operations.
- (d) The temperature of the concrete shall be between 15°C and 25°C at discharge. Temperature requirements for concrete containing silica fume shall be between 10°C and 18°C at discharge unless otherwise approved by the Contract Administrator.
- (e) Concrete materials susceptible to frost damage shall be protected from freezing.

E10.5.6 Coarse Aggregate

- (a) The Contractor shall be responsible for testing the coarse aggregates to establish conformance to these specifications, and the results of these tests shall be provided to the Contract Administrator if requested. All aggregates shall comply with CAN/CSA A23.1.
- (b) The maximum nominal size of coarse aggregate shall be sized to suit the Contractor's mix design. Gradation shall be in accordance with CAN/CSA A23.1, Table 11, Group 1. The coarse aggregate shall satisfy the Standard Requirements specified in CAN/CSA A23.1, Table 12, "Concrete Exposed to Freezing and Thawing".
- (c) Coarse aggregate shall consist of crushed stone or gravel or a combination thereof, having hard, strong, durable particles free from elongation, dust, shale, earth, vegetable matter or other injurious substances. Coarse aggregate shall be clean and free from alkali, organic or other deleterious matter; and shall have an absorption not exceeding 2.25%.
- (d) The aggregate retained on the 5 mm sieve shall consist of clean, hard, tough, durable, angular particles with a rough surface texture, and shall be free from organic material,

adherent coatings of clay, clay balls, and excess of thin particles or any other extraneous material.

- (e) Coarse aggregate when tested for abrasion in accordance with ASTM C131 shall not have a loss greater than thirty percent (30%).
- (f) Tests of the coarse aggregate shall not exceed the limits for standard for requirements prescribed in CAN/CSA A23.1, Table 12, for concrete exposed to freezing and thawing.

E10.5.7 Fine Aggregate

- (a) The Contractor shall be responsible for testing the fine aggregates to establish conformance to these specifications, and the results of these tests shall be provided to the Contract Administrator if requested. All aggregates shall comply with CAN/CSA A23.1.
- (b) Fine aggregate shall meet the grading requirements of CAN/CSA A23.1, Table 10, Gradation FA1.
- (c) Fine aggregate shall consist of sand, stone, screenings, other inert materials with similar characteristics or a combination thereof, having clean, hard, strong, durable, uncoated grains free from injurious amounts of dust, lumps, shale, alkali, organic matter, loam, or other deleterious substances.
- (d) Tests of the fine aggregate shall not exceed the limits for standard requirements prescribed in CAN/CSA A23.1, Table 12.

E10.5.8 Cementing Materials

- (a) Cementing materials shall conform to the requirements of CAN/CSA A3001.
- (b) Silica Fume
 - (i) Should the Contractor choose to include silica fume in the concrete mix design, it shall not exceed eight percent (8%) by mass of cement.
- (c) Fly Ash
 - (i) Fly ash shall be Type C1 or Type F and shall not exceed twenty-five percent (25%) by mass of cement.
- (d) Cementitious materials shall be stored in a suitable weather-tight building that shall protect these materials from dampness and other destructive agents. Cementitious materials that have been stored for a length of time resulting in the hardening or formation of lumps shall not be used in the Work.

E10.5.9 Admixtures

- (a) Air entraining admixtures shall conform to the requirements of ASTM C260.
- (b) Chemical admixtures shall conform to the requirements of ASTM C494 or C1017 for flowing concrete.
- (c) All admixtures shall be compatible with all other constituents. The addition of calcium chloride, accelerators, and air-reducing agents will not be permitted, unless otherwise approved by the Contract Administrator.
- (d) Appropriate low range water reducing and/or superplasticizing admixtures shall be used in concrete containing silica fume. Approved retarders or set controlling admixtures may be used for concrete containing silica fume.

E10.5.10 Water

- (a) Water used for mixing concrete shall be clean and free from injurious amounts of oil, acid, alkali, organic matter, or other deleterious substances. It shall be equal to potable water in physical and chemical properties.

E10.5.11 Concrete Supply

- (a) Concrete shall be proportioned, mixed, and delivered in accordance with the requirements of CAN/CSA A23.1, except that the transporting of ready mixed

concrete in non-agitating equipment will not be permitted unless prior written approval is received from the Contract Administrator.

- (b) Unless otherwise directed by the Contract Administrator, the discharge of ready mixed concrete shall be completed within 90 minutes after the introduction of the mixing water to the cementing materials and aggregates.
- (c) The Contractor shall maintain all equipment used for handling and transporting the concrete in a clean condition and proper working order.

E10.5.12 Reinforcing Steel

- (a) Reinforcing steel shall be deemed to include all reinforcing bars, tie-bars, and dowels.
- (b) All reinforcing steel shall conform to the requirements of CAN/CSA Standard G30.18, Grade 400 W, Billet-Steel Bars for Concrete Reinforcement. All reinforcing steel shall be new deformed billet steel bars. All bars, including ties, shall be hot-dip galvanized in accordance with ASTM A767 for a minimum net retention of 610 g/m². Reinforcing steel supply and installation will be incidental to construction of concrete pile foundation and no separate payment will be made.

E10.5.13 Patching Mortar

- (a) The patching mortar shall be made of the same cementitious material and of approximately the same proportions as used for the concrete, except that the coarse aggregate shall be omitted and the mortar shall consist of not more than one (1) part cement to two (2) parts sand by damp loose volume. White Portland Cement shall be substituted for a part of the grey Portland cement on exposed concrete in order to produce a colour matching the colour of the surrounding concrete, as determined by a trial patch. The quantity of mixing water shall be no more than necessary for handling and placing.

E10.5.14 Three-Strand Barbed Wire Chain link Fence and Gates

- (a) Unless otherwise specified in the Specifications or shown on the Drawings, the three-strand barbed wire chain link fence and gates shall be in accordance with CW-3550.
- (b) The three-strand barbed wire chain link fence shall be 3050 mm high and shall match the existing security fence along the perimeter of the Reservoir. The fence shall come complete with three (3) strands of 13.5 gauge barbed wire spaced 150 mm apart on a 45 degree angle away from the Reservoir, as shown on the Drawings.
- (c) The vehicle access gates shall be supplied complete with tamper proof locking mechanisms as shown on the Drawings. The tamper proof locking mechanisms shall allow the gates to be easily locked while protecting the padlock from vandalism or exposure to the elements. The locking mechanism shall be similar to the existing locking mechanism on the double gate of the north Reservoir access off of Hurst Way.
- (d) The pedestrian access gate shall be supplied complete with a tamper proof locking mechanism as shown on the Drawings. The tamper proof locking mechanism shall allow the gate to be easily locked while protecting the padlock from vandalism or exposure to the elements

E10.6 Construction Methods

E10.6.1 Fence Posts and Three-Strand Barbed Wire Chain link Fence

- (a) Install 250 mm diameter CSP's at fence post locations as shown on the Drawings.
- (b) After construction of the granular laydown area pad, push/pound fence posts into ground within the CSP's to the depth specified in CW-3550 and backfill CSP with granular fill.
- (c) Complete installation of three-strand barbed wire chain link fence in accordance with CW-3550.
 - (i) Fencing shall be stepped if necessary to accommodate uneven ground.
 - (ii) Fencing shall be braced as required.

E10.6.2 Cast-in-Place Pile Foundations for Vehicular Access Gates

(a) Excavation

- (i) Piles shall be placed in the positions shown on the Drawings and as directed by the Contract Administrator in the field.
- (ii) The deviation of the axis of any finished pile shall not differ by more than one percent (1%) from the vertical.
- (iii) Pile excavation shall be accomplished by hydro excavation and/or boring for the full depth of all piles.
- (iv) The Contractor shall locate utilities in the vicinity of the piles prior to excavation. If utilities are discovered within the vicinity of the pile, the Contract Administrator may elect to require the use of hydro excavation to excavate the piles.
- (v) Upon reaching the required elevation, the bottom of the excavation shall be cleaned as directed by the Contract Administrator in the field.
- (vi) All excavated material from the piles shall be promptly hauled away from the Site to an approved disposal area as located by the Contractor.
- (vii) Upon completion of the cleaning out of the bottom to the satisfaction of the Contract Administrator, the reinforcement shall be set in place and the concrete poured immediately. Under no circumstances shall a hole be left to stand open after excavation has been completed.

(b) Sleeving

- (i) Steel or corrugated metal pipe sleeving may be used to temporarily line the excavation to prevent bulging or caving of the walls.
- (ii) The sleeving shall be designed by the Contractor and constructed to resist all forces that may tend to distort it.
- (iii) The sleeving shall be withdrawn as the concrete is placed in the excavation. The sleeving shall extend at least 1 m below the top of the freshly deposited concrete at all times.
- (iv) The clearance between the face of the excavation and the sleeving shall not exceed 75 mm.
- (v) The sleeving may remain cast in place if required to protect nearby utilities at the direction of the Contract Administrator. The top of sleeving shall be 300 mm below the finished grade.

(c) Inspection of Excavations

- (i) Concrete shall not be placed in an excavation until the excavation has been inspected and approved by the Contract Administrator.
- (ii) The Contractor shall have available suitable light for the inspection of each excavation throughout its entire length.
- (iii) Any improperly set sleeving or improperly prepared excavation shall be corrected to the satisfaction of the Contract Administrator.

(d) Placing Reinforcing Steel

- (i) Reinforcement shall be:
 - ◆ placed in accordance with the details shown on the Drawings;
 - ◆ rigidly fastened together; and,
 - ◆ lowered into the excavation intact before concrete is placed.
- (ii) Spacers shall be utilized to properly locate the reinforcing steel cage in the excavation.

(e) Forms

- (i) For hydro excavated piles the top of the piles shall be formed with tubular forms (Sonotube) to a minimum depth of 1500 mm below final grade.

- (ii) For bored piles the top of the piles shall be formed with tubular forms (Sonotube) to a minimum depth of 1000 mm below final grade.
 - (iii) In locations of caving, the tubular form (Sonotube) should extend a minimum of 500 mm below where the shaft becomes uniform.
 - (iv) The forms shall be sufficiently rigid to prevent lateral or vertical distortions from the loading environment to which they shall be subjected. Forms shall be set to the design grades, lines, and dimensions, as shown on the Drawings.
- (f) Placing Concrete
 - (i) Concrete shall not have a free fall of more than 2.0 m and shall be placed so that the aggregates will not separate or segregate. The slump of the concrete shall not exceed 110 mm. The concrete shall be vibrated throughout the entire length of the pile.
 - (ii) Concrete shall be placed to the elevations as shown on the Drawings. The top surface of the pile shall be finished smooth and even with a hand float.
 - (iii) The shaft shall be free of water prior to placing of concrete. Concrete shall not be placed in or through water unless authorized by the Contract Administrator. In the event that tremie concrete is allowed by the Contract Administrator, the concrete shall be placed as specified herein.
 - (iv) All concrete, during and immediately after deposition, shall be consolidated by mechanical vibrations so that the concrete is thoroughly worked around the reinforcement, around embedded items, and into the corners of forms; eliminating all air or stone pockets that may cause honeycombing, pitting, or planes of weakness.
- (g) Tremie Concrete
 - (i) The shaft of the pile shall be pumped clear of water so that the bottom can be cleaned. Pumping shall then be stopped and water shall be allowed to come into the excavation until a state of equilibrium is reached. Concrete shall then be placed by means of a tremie pipe. The tremie pipe shall have a suitable gate in the bottom to prevent water from entering the pipe. The bottom of the pipe shall be maintained below the surface of the freshly placed concrete. The pipe shall be capable of being raised or lowered quickly in order to control the flow of concrete.
 - (ii) Tremie concrete shall be poured up to a depth of 600 mm or as the Contract Administrator directs. Pumps shall then be lowered into the excavation and the excess water pumped out. The laitance that forms on top of the tremie shall then be removed and the remainder of the concrete shall be placed in the dry excavation.
- (h) Protection of Newly Placed Concrete
 - (i) Newly laid concrete threatened with damage by rain, snow, fog, or mist shall be protected with a tarpaulin or other approved means.
- (i) Curing Concrete
 - (i) The top of the freshly finished concrete piles shall be covered and kept moist by means of wet polyester blankets immediately following finishing operations and shall be maintained at above 10°C for at least seven (7) consecutive days thereafter.
 - (ii) After the finishing is completed, the surface shall be promptly covered with a minimum of a single layer of clean, damp polyester blanket.
 - (iii) Concrete shall be protected from the harmful effects of sunshine, drying winds, surface dripping or running water, vibration, and mechanical shock. Concrete shall be protected from freezing until at least twenty-four (24) hours after the end of the curing period.
 - (iv) Changes in temperature of the concrete shall be uniform and gradual and shall not exceed 3° in one (1) hour or 20° in twenty-four (24) hours.
- (j) Form Removal

- (i) Forms shall not be removed for a period of at least twenty-four (24) hours after the concrete has been placed. Removal of forms shall be done in a manner to avoid damage to, or spalling of, the concrete.
 - (ii) The minimum strength of concrete in place for safe removal of forms shall be 20 MPa.
 - (iii) Field-cured test specimens, representative of the in-place concrete being stripped, will be tested to verify the concrete strength.
- (k) Patching of Formed Surfaces
- (i) Immediately after forms around top of pile have been removed, but before any repairing or surface finishing is started, the concrete surface shall be inspected by the Contract Administrator. Any repair of surface finishing started before this inspection may be rejected and required to be removed.
 - (ii) Minor surface defects caused by honeycomb, air pockets greater than 5 mm in diameter, and voids left by strutting, and tie holes shall be repaired by removing the defective concrete to sound concrete, dampening the area to be patched and then applying patching mortar. A slurry grout consisting of water and cement shall be well-brushed onto the area to be patched. When the slurry grout begins to lose the water sheen, the patching mortar shall be applied. It shall be struck-off slightly higher than the surface and left for one (1) hour before final finishing to permit initial shrinkage of the patching mortar and it shall be touched up until it is satisfactory to the Contract Administrator. The patch shall be cured as specified in this Specification, and the final colour shall match the surrounding concrete.
- (l) Cold Weather Concreting
- (i) Protection of concrete shall be considered incidental to its placement. The temperature of the concrete shall be maintained at or above 10°C for a minimum of three (3) days or until the concrete has reached a minimum compressive strength of 20 MPa, by whatever means are necessary. Concrete damaged as a result of inadequate protection against weather conditions shall be removed and replaced by the Contractor at his own expense. Also, concrete allowed to freeze prior to the three (3) days will not be accepted for payment.

E10.7 Measurement and Payment

E10.7.1 The 3050 mm high three-strand barbed wire chain link fence will be measured on a lineal metre basis and paid for at the Contract Unit Price for "Supply and Install 3050 mm High Three-Strand Barbed Wire Chain Link Fence" listed under the "Items of Work" in E10.8. The amount to be paid for will be the total number of lineal metres installed in accordance with this Specification, Drawings, and accepted and measured by the Contract Administrator.

E10.7.2 The cast-in-place concrete pile foundations and vehicle and pedestrian gates will be measured on a unit basis and paid for at the Contract Unit Price for "Items of Work" listed in E10.8. The amount to be paid for will be the total number of units installed in accordance with this Specification, Drawings, and accepted and measured by the Contract Administrator.

E10.8 Items of Work:

- (a) Cast-in-Place Concrete Pile Foundations:
 - (i) 600 mm Diameter Pile, 6.5 m Long.
 - (ii) 600 mm Diameter Pile, 10.0 m Long.
- (b) Supply and Install 3050 mm High Three-Strand Barbed Wire Chain Link Fence.
- (c) Gates:
 - (i) Supply and Install Vehicle Access Gate in 3050 mm Chain Link Fence.
 - (ii) Supply and Install Pedestrian Access Gate in 3050 mm Chain Link Fence.

- E10.8.1 Supplying and installing all the listed materials, concrete design requirements, equipment, construction methods, and quality control measures associated with this Specification and Drawings shall be considered incidental to the items of work listed in this Specification, unless otherwise noted herein. No measurement or payment shall be made for this Work unless indicated otherwise.

E11. CORRUGATED STEEL PIPE (CSP) CULVERT

E11.1 Description

- E11.1.1 This Specification shall supplement CW-3610 and covers the supply and installation of CSP culverts and CSP culvert bevelled ends as shown on the Drawings and as directed by the Contract Administrator.

E11.2 References

- E11.2.1 All related Specifications and reference Standards are in accordance with the most current issue or latest revision:
- (a) City of Winnipeg's Specification CW-3610 (latest edition) – Installation of Culverts.

E11.3 Submissions

- E11.3.1 The Contractor shall provide Shop Drawings for the culvert, splice, and bevelled end details in accordance with E3/E4.

E11.4 Materials

E11.4.1 CSP Culvert with Bevelled Ends

- (a) The culvert shall be a Type 2 Aluminized Steel, 450 mm diameter, 2 mm gauge, with a 68 x 13 mm corrugation profile and shall come complete with bevelled ends.

E11.5 Construction Methods

- E11.5.1 Installation shall be in accordance with CW-3610.

E11.6 Measurement and Payment

- E11.6.1 Corrugated Steel Pipe (CSP) Culvert supply and installation will be measured and paid for as per CW-3610 Clause 4.1.
- E11.6.2 Notwithstanding CW-3610, the supply of CSP Culvert Bevelled Ends will be considered incidental to the Contract Unit Price for "Corrugated Steel Pipe (CSP) Culvert – i) Supply" and no separate measurement for payment will be made.

E12. EXCAVATION

E12.1 Description

- E12.1.1 This Specification shall supplement CW-3110 and covers excavation of the laydown area prior to placement of separation geotextile and granular fill.

E12.2 References

- E12.2.1 All related Specifications and reference Standards are in accordance with the most current issue or latest revision:
- (a) City of Winnipeg's Specification CW-3110 (latest edition) – Sub-Grade, Sub-Base and Base Course Construction.

E12.3 Construction Methods

- E12.3.1 The Contractor shall strip all surface vegetation and topsoil and excavate earth material as required for construction of the proposed laydown area pad.

E12.3.2 The stripped and excavated material shall be removed off-site and disposed of by the Contractor. The excavated material shall not be used to fill any low locations, or used otherwise in the Works.

E12.4 Measurement and Payment

E12.4.1 Excavation will be measured and paid for as per CW-3110 Clause 4.3. Notwithstanding CW-3110, excavation shall include stripping topsoil.

E12.4.2 The Contract Administrator will perform a survey of the proposed laydown area after completion of excavation. This survey will be compared to the preconstruction survey completed by the Contract Administrator to determine the actual volume of excavation for payment purposes.

E13. CRUSHED SUB-BASE MATERIAL

E13.1 Description

E13.1.1 This Specification shall supplement CW-3110 and covers the supply and placement of additional crushed sub-base material (100 mm – limestone) required to fill any low locations underneath the proposed laydown area pad.

E13.2 References

E13.2.1 All related Specifications and reference Standards are in accordance with the most current issue or latest revision:

- (a) City of Winnipeg's Specification CW-3110 (latest edition) – Sub-Grade, Sub-Base and Base Course Construction.

E13.3 General

E13.3.1 After stripping topsoil, any low locations under the proposed laydown area pad shall be filled to the underside of the proposed pad elevation using 100 mm – limestone material.

E13.3.2 Supply and placement of the additional 100 mm – limestone shall be in accordance with CW-3110.

E13.4 Measurement and Payment

E13.4.1 Crushed Sub-base Material (100 mm – Limestone) will be measured and paid for as per CW-3110 Clause 4.5.

E13.4.2 The volume of material to be paid for shall include the 100 mm – Limestone material within the proposed laydown pad in addition to the material required below the laydown area pad to fill in any low locations to the appropriate elevations.

PART F - SECURITY CLEARANCE

F1. SECURITY CLEARANCE

F1.1 Each individual proposed to perform Work under the Contract within City facilities shall be required to provide a Criminal Record Search Certificate and a Public Safety Verification Check as detailed below:

F1.2 Public Safety Verification Check may be obtained from BackCheck by visiting <http://www.backcheck.net/cityofwinnipeg>. The results of the Public Safety Verification Check must be received by the City directly through BackCheck.

- (a) Proponents must set up an account with BackCheck under their company name and grant BackCheck permission to share the results of the Public Safety Verification Check with the City of Winnipeg.
- (b) Proponents will then be contacted by BackCheck with instructions on how to complete the Public Safety Verification Check.
- (c) If additional assistance is required to obtain the Public Safety Verification Check, the Bidder may contact the following BackCheck Representative:

Linda Ferens
Email: lferens@backcheck.net
Phone: (204) 999-0912

F1.3 The Criminal Record Search Certificate may be obtained from any of the following:

- (a) The police service having jurisdiction at the individual's place of residence;
- (b) BackCheck by visiting <http://www.backcheck.net/cityofwinnipeg>. The Criminal Record Search Certificate must be received by the City directly through BackCheck.
 - (i) Proponents must set up an account with BackCheck under their company name and grant BackCheck permission to share the Criminal Record Search Certificate with the City of Winnipeg.
 - (ii) Proponents will then be contacted by BackCheck with instructions on how to complete the Criminal Record Search Certificate.
 - (iii) If additional assistance is required to obtain the Criminal Record Search Certificate, the Bidder may contact the following BackCheck Representative:

Linda Ferens
Email: lferens@backcheck.net
Phone: (204) 999-0912

- (c) The Core of Commissionaires: Forms to be completed can be found at <http://www.commissionaires.mb.ca>.

F1.4 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 and a Public Safety Verification Check obtained not earlier than one (1) year prior to the Submission Deadline, or a certified true copy thereof, for each individual proposed to perform the Work.

F1.5 Any individual for whom a Criminal Record Search Certificate or a Public Safety Verification Check is not provided, or for whom a Criminal Record Search Certificate or a Public Safety Verification Check indicates any convictions or pending charges related to property offences or crimes against another person will not be permitted to perform any Work.

F1.6 Any Criminal Record Search Certificate and Public Safety Verification Check obtained thereby will be deemed valid for one (1) year beyond the date which it was obtained. If the Contractor continues to perform work beyond this date, they will be required to provide the Contract Administrator with an updated Criminal Record Search Certificate and Public Safety Verification Check.

- F1.7 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 Record Search Certificate or Public Safety Verification Check. Any individual who fails to provide a satisfactory Criminal Record Search Certificate or Public Safety Verification Check as a result of a repeated criminal records search will not be permitted to continue to perform any Work.