



THE CITY OF WINNIPEG

BID OPPORTUNITY

BID OPPORTUNITY NO. 659-2008

RIVERBANK TRAIL DEVELOPMENT - NORQUAY PARK TO ALFRED AVE

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 RIVERBANK TRAIL DEVELOPMENT - NORQUAY PARK TO ALFRED AVE

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 4:00 p.m. Winnipeg time, August 29, 2008.

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

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

B3. SITE INVESTIGATION

B3.1 Further to C3.1, the Bidder may view the Site without making an appointment.

B3.2 The Bidder is advised to view the site and become familiar with the nature of the Work area, and Site access restrictions. Bidder shall note that existing trees are to be protected and proximity of trees to the construction area may limit the type of construction equipment utilized. The Bidder is made aware the City Naturalist and Forestry Branch will require financial compensation for trees or plant material damaged by the Contractor

B4. ENQUIRIES

B4.1 All enquiries shall be directed to the Contract Administrator identified in D3.1.

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

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

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

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

B5. ADDENDA

B5.1 The Contract Administrator may, at any time prior to the Submission Deadline, issue addenda correcting errors, discrepancies or omissions in the Bid Opportunity, or clarifying the meaning or intent of any provision therein.

B5.2 The Contract Administrator will issue each addendum at least two (2) Business Days prior to the Submission Deadline, or provide at least two (2) Business Days by extending the Submission Deadline.

B5.2.1 Addenda will be available on the Bid Opportunities page at The City of Winnipeg, Corporate Finance, Materials Management Division internet site at <http://www.winnipeg.ca/matmgt>.

- B5.2.2 The Bidder is responsible for ensuring that he has received all addenda and is advised to check the Materials Management Division internet site for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.
- B5.2.3 The Bidder shall acknowledge receipt of each addendum in Paragraph 8 of Form A: Bid. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.

B6. SUBSTITUTES

- B6.1 The Work is based on the Plant, Materials and methods specified in the Bid Opportunity.
- B6.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.
- B6.3 Requests for approval of a substitute will not be considered unless received in writing by the Contract Administrator at least five (5) Business Days prior to the Submission Deadline.
- B6.4 The Bidder shall ensure that any and all requests for approval of a substitute:
- (a) provide sufficient information and details to enable the Contract Administrator to determine the acceptability of the Plant, Material or method as either an approved equal or alternative;
 - (b) identify any and all changes required in the applicable Work, and all changes to any other Work, which would become necessary to accommodate the substitute;
 - (c) identify any anticipated cost or time savings that may be associated with the substitute;
 - (d) certify that, in the case of a request for approval as an approved equal, the substitute will fully perform the functions called for by the general design, be of equal or superior substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance;
 - (e) certify that, in the case of a request for approval as an approved alternative, the substitute will adequately perform the functions called for by the general design, be similar in substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance.
- B6.5 The Contract Administrator, after assessing the request for approval of a substitute, may in his sole discretion grant approval for the use of a substitute as an "approved equal" or as an "approved alternative", or may refuse to grant approval of the substitute.
- B6.6 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, only to the Bidder who requested approval of the substitute.
- B6.6.4 The Bidder requesting and obtaining the approval of a substitute shall be entirely responsible for disseminating information regarding the approval to any person or persons he wishes to inform.
- B6.7 If the Contract Administrator approves a substitute as an "approved equal", any Bidder may use the approved equal in place of the specified item.
- B6.8 If the Contract Administrator approves a substitute as an "approved alternative", any Bidder bidding that approved alternative may base his Total Bid Price upon the specified item but may also indicate an alternative price based upon the approved alternative. Such alternatives will be evaluated in accordance with B14.
- B6.9 No later claim by the Contractor for an addition to the Total Bid Price because of any other changes in the Work necessitated by the use of an approved equal or an approved alternative will be considered.

B7. BID COMPONENTS

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

- (a) Form A: Bid;
- (b) Form B: Prices;

B7.2 Further to B7.1, the Bidder should include the written correspondence from the Contract Administrator approving a substitute in accordance with B6.

B7.3 All components of the Bid shall be fully completed or provided, and submitted by the Bidder no later than the Submission Deadline, with all required entries made clearly and completely, to constitute a responsive Bid.

B7.4 The Bid Submission may be submitted by mail, courier or personal delivery, or by facsimile transmission.

B7.5 If the Bid Submission is submitted by mail, courier or personal delivery, it shall be enclosed and sealed in an envelope clearly marked with the Bid Opportunity number and the Bidder's name and address, and shall be submitted to:

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

B7.5.5 Samples or other components of the Bid Submission which cannot reasonably be enclosed in the envelope may be packaged separately, but shall be clearly marked with the Bid Opportunity number, the Bidder's name and address, and an indication that the contents are part of the Bidder's Bid Submission.

B7.6 Bidders are advised not to include any information/literature except as requested in accordance with B7.1.

B7.7 Bidders are advised that inclusion of terms and conditions inconsistent with the Bid Opportunity document, including the General Conditions, may result in the Bid being determined to be non-responsive.

B7.8 If the Bid Submission is submitted by facsimile transmission, it shall be submitted to (204) 949-1178.

B7.8.6 The Bidder is advised that the City cannot take responsibility for the availability of the facsimile machine at any time.

B7.8.7 Bids submitted by internet electronic mail (e-mail) will not be accepted.

B8. BID

B8.1 The Bidder shall complete Form A: Bid, making all required entries.

B8.2 Paragraph 2 of Form A: Bid shall be completed in accordance with the following requirements:

- (a) if the Bidder is a sole proprietor carrying on business in his own name, his name shall be inserted;
- (b) if the Bidder is a partnership, the full name of the partnership shall be inserted;
- (c) if the Bidder is a corporation, the full name of the corporation shall be inserted;
- (d) if the Bidder is carrying on business under a name other than his own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.

- B8.2.8 If a Bid is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B8.2.
- B8.3 In Paragraph 3 of Form A: Bid, the Bidder shall identify a contact person who is authorized to represent the Bidder for purposes of the Bid.
- B8.4 Paragraph 10 of Form A: Bid shall be signed in accordance with the following requirements:
- (a) if the Bidder is a sole proprietor carrying on business in his own name, it shall be signed by the Bidder;
 - (b) if the Bidder is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;
 - (c) if the Bidder is a corporation, it shall be signed by its duly authorized officer or officers;
 - (d) if the Bidder is carrying on business under a name other than his own, it shall be signed by the registered owner of the business name, or by the registered owner's authorized officials if the owner is a partnership or a corporation.
- B8.4.9 The name and official capacity of all individuals signing Form A: Bid should be printed below such signatures.
- B8.4.10 All signatures shall be original.
- B8.5 If a Bid is submitted jointly by two or more persons, the word "Bidder" shall mean each and all such persons, and the undertakings, covenants and obligations of such joint Bidders in the Bid and the Contract, when awarded, shall be both joint and several.

B9. PRICES

- B9.1 The Bidder shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.
- B9.2 The quantities listed on Form B: Prices are to be considered approximate only. The City will use said quantities for the purpose of comparing Bids.
- B9.3 The quantities for which payment will be made to the Contractor are to be determined by the Work actually performed and completed by the Contractor, to be measured as specified in the applicable Specifications.
- B9.4 Prices from Non-Resident Bidders are subject to a Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).

B10. QUALIFICATION

- B10.1 The Bidder shall:
- (a) undertake to be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba; and
 - (b) be financially capable of carrying out the terms of the Contract; and
 - (c) have all the necessary experience, capital, organization, and equipment to perform the Work in strict accordance with the terms and provisions of the Contract.
- B10.2 The Bidder and any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:
- (a) be responsible and not be suspended, debarred or in default of any obligations to the City. A list of suspended or debarred individuals and companies is available on the Information

Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division internet site at <http://www.winnipeg.ca/matmgt/debar.stm>.

- B10.3 The Bidder and/or any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:
- (a) have successfully carried out work similar in nature, scope and value to the Work; and
 - (b) be fully capable of performing the Work required to be in strict accordance with the terms and provisions of the Contract; and
 - (c) have a written workplace safety and health program if required pursuant to The Workplace Safety and Health Act (Manitoba);
- B10.4 The Bidder shall submit, within three (3) Business Days of a request by the Contract Administrator, proof satisfactory to the Contract Administrator of the qualifications of the Bidder and of any proposed Subcontractor.
- B10.5 The Bidder shall provide, on the request of the Contract Administrator, full access to any of the Bidder's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Bidder's equipment and facilities are adequate to perform the Work.

B11. OPENING OF BIDS AND RELEASE OF INFORMATION

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

B12. IRREVOCABLE BID

- B12.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 9 of Form A: Bid.
- B12.2 The acceptance by the City of any Bid shall not release the Bids of the next two lowest evaluated responsive Bidders and these Bidders shall be bound by their Bids on such Work for the time period specified in Paragraph 9 of Form A: Bid.

B13. WITHDRAWAL OF BIDS

- B13.1 A Bidder may withdraw his Bid without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.
- B13.1.11 Notwithstanding C23.3, the time and date of receipt of any notice withdrawing a Bid shall be the time and date of receipt as determined by the Manager of Materials.
 - B13.1.12 The City will assume that any one of the contact persons named in Paragraph 3 of Form A: Bid or the Bidder's authorized representatives named in Paragraph 10 of Form A: Bid, and only such person, has authority to give notice of withdrawal.

- B13.1.13 If a Bidder gives notice of withdrawal prior to the Submission Deadline, the Manager of Materials will:
- (a) retain the Bid until after the Submission Deadline has elapsed;
 - (b) open the Bid to identify the contact person named in Paragraph 3 of Form A: Bid and the Bidder's authorized representatives named in Paragraph 10 of Form A: Bid; and
 - (c) if the notice has been given by any one of the persons specified in B13.1.13(b), declare the Bid withdrawn.
- B13.2 A Bidder who withdraws his Bid after the Submission Deadline but before his Bid has been released or has lapsed as provided for in B12.2 shall be liable for such damages as are imposed upon the Bidder by law and subject to such sanctions as the Chief Administrative Officer considers appropriate in the circumstances. The City, in such event, shall be entitled to all rights and remedies available to it at law.

B14. EVALUATION OF BIDS

- B14.1 Award of the Contract shall be based on the following bid evaluation criteria:
- (a) compliance by the Bidder with the requirements of the Bid Opportunity (pass/fail);
 - (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B10 (pass/fail);
 - (c) Total Bid Price;
 - (d) economic analysis of any approved alternative pursuant to B6.
- B14.2 Further to B14.1(a), the Award Authority may reject a Bid as being non-responsive if the Bid is incomplete, obscure or conditional, or contains additions, deletions, alterations or other irregularities. The Award Authority may reject all or any part of any Bid, or waive technical requirements or minor informalities or irregularities, if the interests of the City so require.
- B14.3 Further to B14.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in his Bid or in other information required to be submitted, that he is responsible and qualified.
- B14.4 Further to B14.1(c), the Total Bid Price shall be the sum of the quantities multiplied by the unit prices for each item shown on Form B: Prices.
- B14.4.14 If there is any discrepancy between the Total Bid Price written in figures, the Total Bid Price written in words and the sum of the quantities multiplied by the unit prices for each item, the sum of the quantities multiplied by the unit prices for each item shall take precedence.
- B14.4.15 Further to B14.1(a), in the event that a unit price is not provided on Form B: Prices, the City will determine the unit price by dividing the Amount (extended price) by the approximate quantity, for the purposes of evaluation and payment.

B15. AWARD OF CONTRACT

- B15.1 The City will give notice of the award of the Contract or will give notice that no award will be made.
- B15.2 The City will have no obligation to award a Contract to a Bidder, even though one or all of the Bidders are determined to be responsible and qualified, and the Bids are determined to be responsive.
- B15.2.16 Without limiting the generality of B15.2, the City will have no obligation to award a Contract where:
- (a) the prices exceed the available City funds for the Work;
 - (b) the prices are materially in excess of the prices received for similar work in the past;

- (c) the prices are materially in excess of the City's cost to perform the Work, or a significant portion thereof, with its own forces;
- (d) only one Bid is received; or
- (e) in the judgment of the Award Authority, the interests of the City would best be served by not awarding a Contract.

B15.3 Where an award of Contract is made by the City, the award shall be made to the responsible and qualified Bidder submitting the lowest evaluated responsive Bid, in accordance with B14.

B15.3.17 Following the award of contract, a Bidder will be provided with information related to the evaluation of his Bid upon written request to the Contract Administrator.

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

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

PART C - GENERAL CONDITIONS

C0. GENERAL CONDITIONS

C0.1 The *General Conditions for Construction* (Revision 2006 12 15) are applicable to the Work of the Contract.

C0.1.18 The *General Conditions for Construction* are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division internet site 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. SCOPE OF WORK

D2.1 The Work to be done under the Contract shall consist of Granular Pathway development along the Red River, from Alfred Ave to Hallet Street.

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

- (a) Tree Clearing and Grubbing
- (b) Demolition and clean-up
- (c) Earthwork and Grading including Erosion and Sediment Control Measures
- (d) Gravel pathway
- (e) Topsoil and Sod
- (f) Post Fencing and Chain Link Fencing

D3. CONTRACT ADMINISTRATOR

D3.1 The Contract Administrator is Hilderman Thomas Frank Cram, represented by:

Allan Beech
Hilderman Thomas Frank Cram
500-115 Bannatyne Ave. East, MB R3B 0R3
Telephone No. (204) 944-9907
Facsimile No. (204) 957-1467

D3.2 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. CONTRACTOR'S SUPERVISOR

D4.1 At the pre-construction meeting, the Contractor shall identify his designated supervisor and any additional personnel representing the Contractor and their respective roles and responsibilities for the Work.

D5. NOTICES

D5.1 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.

D5.2 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the City, except as expressly otherwise required in D5.3, D5.4 or elsewhere in the Contract, shall be sent to the attention of the Contract Administrator at the address or facsimile number identified in D3.1.

D5.3 Notwithstanding C21.3, all notices of appeal to the Chief Administrative Officer shall be sent to the attention of the Chief Financial Officer at the following address or facsimile number:

The City of Winnipeg
Chief Financial Officer
Administration Building, 3rd Floor
510 Main Street
Winnipeg MB R3B 1B9
Facsimile No.: (204) 949-1174

- D5.4 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications required to be submitted or returned to the City Solicitor shall be sent to the following address or facsimile number:

The City of Winnipeg
Internal Services Department
Legal Services Division
Attn: City Solicitor
185 King Street, 3rd Floor
Winnipeg MB R3B 1J1
Facsimile No.: (204) 947-9155

SUBMISSIONS

D6. AUTHORITY TO CARRY ON BUSINESS

- D6.1 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.

D7. INSURANCE

- D7.1 The Contractor shall provide and maintain the following insurance coverage:
- (a) commercial general liability insurance, in the amount of at least two million dollars (\$2,000,000.00) inclusive, with The City of Winnipeg added as an additional insured, with a cross-liability clause, such liability policy to also contain contractual liability, unlicensed motor vehicle liability, non-owned automobile liability and products and completed operations, to remain in place at all times during the performance of the Work and throughout the warranty period;
 - (b) automobile liability insurance for owned automobiles used for or in connection with the Work in the amount of at least two million dollars (\$2,000,000.00) at all times during the performance of the Work and until the date of Total Performance;
- D7.2 Deductibles shall be borne by the Contractor.
- D7.3 The Contractor shall provide the Contract Administrator with a certificate(s) of insurance, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Work but in no event later than seven (7) Calendar Days from notification of the award of Contract by Purchase Order.
- D7.4 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.

D8. PERFORMANCE SECURITY

- D8.1 If the Contract Price exceeds twenty-five thousand dollars (\$25,000.00), the Contractor shall provide and maintain performance security until the expiration of the warranty period in the form of:

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

D8.1.19 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.

D8.2 The Contractor shall provide the City Solicitor with the required performance security within seven (7) Calendar Days of notification of the award of the Contract by way of Purchase Order and prior to the commencement of any Work on the Site.

D9. SUBCONTRACTOR LIST

D9.1 The Contractor shall provide the Contract Administrator with a complete list of the Subcontractors whom the Contractor proposes to engage (Form J: Subcontractor List) at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than seven (7) Calendar Days from notification of the award of Contract.

SCHEDULE OF WORK

D10. COMMENCEMENT

D10.1 The Contractor shall not commence any Work until he is in receipt of a Purchase Order from the Award Authority authorizing the commencement of the Work.

D10.2 The Contractor shall not commence any Work on the Site until:

- (a) the Contract Administrator has confirmed receipt and approval of:
 - (i) evidence of authority to carry on business specified in D6;
 - (ii) evidence of the workers compensation coverage specified in C6.15;
 - (iii) evidence of the insurance specified in D7;
 - (iv) the performance security specified in D8;
 - (v) the Subcontractor list specified in D9

D10.3 The Contractor shall commence the Work on the Site within seven (7) Working Days of receipt of the Purchase Order.

D11. SUBSTANTIAL PERFORMANCE

D11.1 The Contractor shall achieve Substantial Performance by October 3, 2008.

D11.2 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.

D11.3 The date on which the Work has been certified by the Contract Administrator as being substantially performed to the requirements of the Contract through the issue of a certificate of Substantial Performance is the date on which Substantial Performance has been achieved.

D12. TOTAL PERFORMANCE

D12.1 The Contractor shall achieve Total Performance by October 17, 2008.

D12.2 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.

D12.3 The date on which the Work has been certified by the Contract Administrator as being totally performed to the requirements of the Contract through the issue of a certificate of Total Performance is the date on which Total Performance has been achieved.

D13. LIQUIDATED DAMAGES

D13.1 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 two hundred & fifty dollars (\$250) per Working Day for each and every Working Day following the day fixed herein for Total Performance during which such failure continues.

D13.2 The amount specified for liquidated damages in D13.1 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.

D13.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

CONTROL OF WORK

D14. JOB MEETINGS

D14.1 Regular weekly job meetings will be held at the Site. These meetings shall be attended by a minimum of one representative of the Contract Administrator, one representative of the City and one representative of the Contractor. Each representative shall be a responsible person capable of expressing the position of the Contract Administrator, the City and the Contractor respectively on any matter discussed at the meeting including the Work schedule and the need to make any revisions to the Work schedule. The progress of the Work will be reviewed at each of these meetings.

D14.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he deems it necessary.

D15. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)

D15.1 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).

D16. EXISTING SERVICES AND UTILITIES

D16.1 No responsibility will be assumed by the City for correctness or completeness of the Drawings, when provided, with respect to the existing utilities, pipes or other objects either underground or on the surface; the City shall not be liable for the incorrectness and inadequacy thereof. It

shall be the responsibility of the Contractor to determine the location of all such utilities, pipes and other objects and to make good any damage done to them.

D17. ACCESS TO SITE

- D17.1 Access to the Site as required by the Contractor shall be provided and maintained by the Contractor at his own expense and approved by the Contract Administrator.
- D17.2 The Contractor's operations shall be limited to the minimum area necessary for undertaking the Work and he shall be responsible for all damage resulting from his Work on private property.

D18. DAMAGE TO EXISTING STRUCTURES, TREES AND PROPERTY

- D18.1 All necessary precautions shall be exercised by the Contractor so as not to remove, disturb, or damage any existing trees, shrubs, sod, pavements, streets, roads, boulevards, poles, hydrants, water pipes, gas pipes, electrical wires, cables, conduits, sewers or other existing facilities and equipment at the Site of the Work. For all damage incurred in the performance of the Work (either directly or indirectly), the Contractor shall either replace and repair such damage, whichever may be deemed necessary in the opinion of, and acceptable to City of Winnipeg Contract Administrator, and the cost of which shall be borne entirely by the Contractor. The Contractor shall also indemnify and save harmless the City from all claims made directly or indirectly against it in respect to any such damage.
- D18.2 The Contractor shall take the following precautionary steps to prevent damage from construction activities to existing trees within the limits of the construction area.
- D18.3 The Contractor shall not stockpile materials and soil or park vehicles and equipment within 2 metres of trees.
- D18.4 Trees identified to be at risk by the Contract Administrator are to be strapped with 25x100x2400 wood planks, or suitable protected as approved by the Contract Administrator.
- D18.5 Excavation shall be performed in a manner that minimizes damage to the existing root systems. Where possible, excavation shall be carried out such that the edge of the excavation shall be a minimum of 1.5 times the diameter (measured in inches), with the outcome read in feet, from the closest edge of the trunk. Where roots must be cut to facilitate excavation, they shall be pruned neatly at the face of excavation by an arborist certified to practice in the province of Manitoba.
- D18.6 Operation of equipment within the drip line of the trees shall be kept to a minimum required to perform the Work required. Equipment shall not be parked, repaired, refuelled; construction materials shall not be stored, and earth materials shall not be stockpiled within the drip lines of trees. The drip line of a tree shall be considered to be the ground surface directly beneath the tips of its outermost branches. The Contractor shall ensure that the operations do not cause flooding or sediment deposition on areas where trees are located.
- D18.6.1 All damage to existing trees caused by the Contractor's activities shall be repaired to the requirements and satisfaction of the Contract Administrator and the City Forester or his/her designate.
- D18.7 No separate measurement or payment will be made for the protection of trees.

MEASUREMENT AND PAYMENT

D19. PAYMENT

- D19.1 Further to C12, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

WARRANTY

D20. WARRANTY

D20.1 Warranty is as stated in C13.

FORM H1: PERFORMANCE BOND
(See D8)

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. 659-2008

RIVERBANK TRAIL DEVELOPMENT - NORQUAY PARK TO ALFRED AVE

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 D8)**

(Date)

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

RE: PERFORMANCE SECURITY - BID OPPORTUNITY NO. 659-2008

RIVERBANK TRAIL DEVELOPMENT - NORQUAY PARK TO ALFRED AVE

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

(Name of Contractor)

(Address of Contractor)

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

Canadian dollars.

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

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

Partial drawings are permitted.

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

(Address)

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

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

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

(Date)

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

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

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

(Name of bank or financial institution)

Per: _____
(Authorized Signing Officer)

Per: _____
(Authorized Signing Officer)

PART E - SPECIFICATIONS

GENERAL

E1. APPLICABLE SPECIFICATIONS AND DRAWINGS

- E1.1 These Specifications shall apply to the Work.
- E1.2 *The City of Winnipeg Standard Construction Specifications* in its entirety, whether or not specifically listed on Form B: Prices, shall apply to the Work.
- E1.2.2 *The City of Winnipeg Standard Construction Specifications* is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division internet site at <http://www.winnipeg.ca/matmgt>.
- E1.2.3 The version in effect three (3) Business Days before the Submission Deadline shall apply.
- E1.2.4 Further to C2.4(d), Specifications included in the Bid Opportunity shall govern over *The City of Winnipeg Standard Construction Specifications*.
- E1.3 The following are applicable to the Work:

<u>Drawing No.</u>	<u>Drawing Name/Title</u>
	Cover Sheet
L-1	Trail Plan: South
L-2	Trail Plan: North
L-3	Trail Plan Detail: Magnus to Burrows and Construction Details

E2. LAYOUT OF WORK

- E2.1 Further to G.C.11, the Contractor shall set control lines and bench marks by means of stakes, buoys or marks and the Contractor shall make the completed Works conform to the lines and marks thus indicated. The Contractor shall furnish all other lines and levels required. The Contractor shall be responsible for the careful preservation of all stakes and marks so set whether relating to his own or to other Work. Care must be taken that the Contract Administrator be notified immediately of the disturbance of any such stakes or marks. The cost of correcting any errors arising out of neglect of the Contractor or his agent or his employees, to so notify the Contractor Administrator shall be borne entirely by the Contractor, as well as the cost of replacing any disturbed stakes or marks.
- E2.2 All layout Work shall be inspected and approved by the Contract Administrator prior to construction.
- E2.3 Before commencing Work the Contractor shall satisfy himself as to the meaning and correctness of all stakes and marks and no claims shall be entertained by the City of Winnipeg on account of any alleged inaccuracies. If any error is suspected in the plans, specifications or the directions of the Contract Administrator, Work shall be discontinued until the errors are rectified, but no claims shall be made on account of any delay occasioned thereby.
- E2.4 All shapes laid out by the Contractor must be within the area allowance for all items as shown on the Drawings.
- E2.5 The Contractor shall locate and protect all underground utilities prior to commencing construction.

E3. PEDESTRIAN AND TRAFFIC CONTROL

- E3.1 General Description
- E3.1.5 This Specification shall supplement Specification CW 1130-R1 and shall cover the supply, installation, maintenance, and removal of temporary traffic and pedestrian control.

- E3.1.6 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 Work as hereinafter specified.
- E3.2 Materials
- E3.2.1 General
- .1 All barricades, signs, flashers, and other equipment shall be in accordance with the "Manual of Temporary Control in Work Areas on City Streets."
- E3.2.2 Snow Fence
- .1 Plastic netting, UV stabilized, high density polyethylene, international orange colour, 1.22 m height, complete with steel stakes to suit size.
- E3.3 Construction Methods
- E3.3.1 General
- .1 The Contractor will be responsible for the placement of all required signing and barricades, for traffic control in the construction area.
- E3.3.2 Snow Fencing
- .1 Erect snow fencing surrounding the areas under construction and any excavations deeper than 500 mm.
 - .2 Snow fencing shall be placed so as to present no hazard to vehicles or pedestrians and shall be kept securely fastened and neat in appearance at all times.
- E3.4 Quality Control
- E3.4.1 All workmanship and all materials furnished and supplied under this Specification are subject to the 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 which are not in accordance with the requirements of this Specification. The Contractor shall maintain all traffic control as specified herein.
- E3.4.2 If, in the opinion of the Contract Administrator, the traffic control is not in accordance with this Specification, the Work in the affected area shall be stopped and shall not resume until such time as the traffic control deficiencies are corrected to the satisfaction of the Contract Administrator. No contract time extensions will be granted as a result of lost time due to Work stoppages because of inadequate traffic control by Contractor.

E4. EROSION AND SEDIMENT CONTROL

- E4.1 This Specification covers the supply, implementation and maintenance of erosion control measures during construction to control the release of sediments into the river during and following construction.
- E4.2 The Work to be done under this Specification shall include the furnishing of all superintendence, overhead, labour, materials equipment, tools, supplies and all other things necessary for and incidental to the satisfactory performance and completion of all Work hereinafter specified.
- E4.3 Contractors are referred to “Best Management Practices Handbook for Activities In and Around the City’s Waterways and Watercourses” which can be found at www.winnipeg.ca/ppd/riverbank/BMPHandbook.pdf for supplemental information pertaining to the Work under this Specification.
- E4.4 Materials: The Contractor shall maintain a supply of erosion control products such as silt fencing, straw bales or mulch on Site at all times suitable for trapping and preventing sediments from entering the river during construction.
- E4.5 Construction Methods
- (a) The Contractor shall plan and carry out all his Work in a manner that will mitigate the potential for the release of sediments into the river.
 - (b) The Contractor shall monitor his Work and implement appropriate sediment control measures as Site conditions warrant. Such measures may include installation of silt fences, straw bales or other measures as required in the event that there is runoff from the Site due to thawing or rain.
 - (c) Upon completion of the construction Work, all surplus or waste materials, and materials containing fine-grained sediments shall be removed from the Site.
- E4.5.1 Post Construction
- (a) Sediment control measures shall be installed and maintained until Acceptance for Completion of sodding: to the end of 30 day maintenance period.
- E4.6 Measurement and Payment
- (a) No separate measurement or payment shall be made for erosion control measures supplied, installed and maintained under this specification. This Work shall be incidental to the Contract.

E5. MACHINERY OPERATIONS

- E5.1 The Contractor is made aware that Fisheries and Oceans Canada (DFO) has the conditions and measures set out below to protect fish and fish habitat. Contractor to follow guidelines set up by DFO for construction.
- (a) Operate machinery from outside of the water and in manner that minimizes disturbance to the banks or bed of the watercourse.
 - (b) Machinery is to arrive on site in a clean condition and is to be maintained free of fluid leaks.
 - (c) Wash, refuel and service machinery and store fuel and other materials for the machinery away from the water to prevent deleterious substances from entering the water.
 - (d) Keep an emergency spill kit on site in case of fluid leaks or spills from machinery.
 - (e) 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 to the Contract Administrator and Manitoba Conservation, immediately after occurrence of the environmental accident, by calling the 24-hour emergency telephone number (204) 945-4888.

E6. SITE ACCESS

- E6.1 Access to the each Site will be determined at the pre-construction meeting. The removal of select plants in riparian vegetation should be kept to minimum. This access area shall be provided and maintained by the Contractor at his own expense and approved by the Contract Administrator.
- E6.2 The Contractor shall be restricted to the Site access location and route only so that there is a minimum of disturbance to the existing ground surface. Damage to areas beyond the marked route shall be repaired by and at the expense of the Contractor to the satisfaction of the Contract Administrator.

E7. PERMITS, NOTICES, LICENSES, CERTIFICATES, LAWS AND RULES

- E7.1 The Contractor shall comply with all laws, ordinances, rules and regulations that would relate to the Work.
- E7.2 All notices, consents, approvals, statements, authorizations, documents or other communications to the City shall be submitted to the Contract Administrator.
- E7.3 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety Act.
- E7.4 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety Fall Protection guidelines.
- E7.5 The Contractor and Sub-contractors must be fully aware of all Work involving hazardous materials. All Work must be performed in compliance with the Manitoba Department of Labour Workplace Health and Safety Guidelines and all other applicable codes. The Contractor is responsible for the immediate notification to the Contract Administrator of his/her encountering of suspected hazardous material during their course of Work.
- E7.6 All work to be done in compliance with the Waterways Permit.

E8. CLEARING AND GRUBBING

- E8.1 General Description
- E8.1.1 This Specification shall cover the removal from the Site of trees, shrubs, stumps, roots, logs, brush, rubbish and all other surface litter within the full limit of the Work, as shown on the Drawings, and the disposal of same in a manner hereinafter specified, and shall supplement CW 3010-R4.
- E8.2 Construction Methods
- E8.2.1 Before commencement of any Work, the Contractor shall consult with the Contract Administrator as to which trees & shrubs shall remain on the Site and be protected, if any. Those so designated shall be protected against damage from all construction activity.
- E8.2.2 The Contractor shall restrict his activities strictly to within the limit of the Works, unless receiving prior written approval from the Contract Administrator. The Contractor shall take all precautions to prevent damage to traffic, structure, pole lines, adjacent property and to shrubs designated to remain, and he shall be liable for any damages occurring during the performance of this Work.
- E8.2.7 The Contractor shall cut down all trees, shrubs and brush except those designated by the Contract Administrator to remain, and grub out all stumps and roots within the trail corridor (trail width plus 0.9m ea side and finished grade to 2.4m height above trail). The Contractor shall load and haul all stumps, roots, logs, brush, rubbish and all other surface litter from the Site and dispose of these materials at dumps located by the Contractor and approved by the Contract Administrator. Any materials dropped or spilled on any streets during the hauling operations shall be promptly clean up by and at the expense of the Contractor, to the satisfaction of the Contract Administrator.

- E8.2.8 The Contractor shall cut down or prune all trees designated by the Contract Administrator and confirmed on site. Trees to be removed, outside the trail corridor as noted in E8.2.3, shall be cut to 0.3m above grade and the stump and roots left undisturbed.
- E8.2.9 The Contractor shall ensure that upon completion of the clearing and grubbing operations, the Site shall be left free of any hazardous depressions and in a neat condition.
- E8.2.10 Measurement and Payment
(a) Clearing and Grubbing will be paid for on a lump sum basis. Price shall be payment in full for performing the Work.

E9. DEMOLITION AND CLEAN-UP

- E9.1 Demolition and clean-up shall be done in accordance with City of Winnipeg's Standard Construction Specification CW3235-R6. Contractor shall remove miscellaneous existing debris, concrete slab and asphalt pavement, at locations shown on the Drawings. Dispose of removed material per City Standards.
- E9.2 Measurement and Payment
(a) Demolition and clean-up will be paid for on a lump sum basis. Price shall be payment in full for performing the Work.

E10. EARTHWORK AND GRADING

- E10.1 Earthwork and grading shall be done in accordance with City of Winnipeg's Standard Construction Specification CW3170-R3 Earthwork and Grading. Contractor to stabilize any waste materials removed from the Work site, above the Ordinary High Water Mark to prevent them from entering any watercourse. The Ordinary High Water Mark for river is often the 1:2 year flood flow return level.
- E10.2 Measurement and Payment
(a) Earthwork and Grading will be paid for on a lump sum basis. Price shall be payment in full for placing / removing material and for performing the Work.

E11. GRAVEL PATHWAY

- E11.1 Description
This Specification shall amend and supplement the City of Winnipeg Specification CW 3110-R10. The Work to be done by the Contractor under this Specification shall cover all phases of supply and placement of crushed limestone surfacing materials necessary to install a Gravel Pathway.
- E11.2 Materials
New Limestone Pathways shall consist of a 150 mm sub-base course depth of 50 mm diameter down crushed limestone, a 50 mm base course depth of 19 mm diameter down crushed limestone, with a 25 mm depth of 6 mm diameter limestone capping.
- E11.3 Construction Method
(a) The Contractor shall survey and stake out pathway prior to the start of construction as shown on the construction drawings. Layout and grades of pathway shall be checked and confirmed with Contract Administrator prior to construction.
(b) All granular base course shall be placed and compacted to the finished thickness as specified on the drawings.
(c) Base Courses and Capping Course shall be compacted to a minimum of hundred (100%) of Standard Proctor Density.

E11.4 Method of Measurement and Basis of Payment

- (a) New Gravel Pathway will be paid for on a square metre basis. Price shall be payment in full for supplying materials and for performing the Work.

E12. TOPSOIL AND FINISH GRADING

E12.1 General Description

E12.1.1 This Specification shall cover the supply and installation of topsoil for areas to be sodded, as specified herein and as indicated on the Drawings, and in accordance with CW 3540-R5.

E12.1.2 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 other things necessary for and incidental to the satisfactory performance and completion of all Work as hereinafter specified and in accordance with CW 3540-R5.

E12.2 Protection

E12.2.1 Protect elements surrounding the Work of this section from damage or disfiguration.

E12.2.2 Protect landscaping and other features remaining as final Work.

E12.3 Source Quality Control

E12.3.1 Inform Contract Administrator of proposed source of topsoil to be supplied and provide sample for review by Contract Administrator prior to installation.

E12.3.2 Test topsoil for clay, sand and silt, NPK, Mg, soluble salt content, pH value, growth inhibitors and soil sterilants.

E12.4 Submittals

E12.4.1 Submit 0.5 kg sample of topsoil to testing laboratory and indicate present use and intended use. Prepare and ship sample in accordance with provincial regulations and testing laboratory requirements.

E12.4.2 Submit two (2) copies of soil analysis and recommendations for corrections to Contract Administrator.

E12.5 Delivery and Storage

E12.5.1 Deliver and store fertilizer in waterproof bags accompanied in writing by weight, analysis and name of manufacturer.

E12.6 Materials

E12.6.1 Topsoil: In accordance with CW 3540-R5.

E12.7 Construction Method

E12.7.1 In accordance with CW 3540.

Place topsoil for sod areas to depth of 75mm.

E12.7.2 Finish Grading

- .1 Fine grade entire topsoiled area to contours and elevations as indicated on Drawing L-2 "Site Grading." Eliminate rough spots and low areas to ensure positive drainage to catch basins and area drains.
- .2 Prepare loose friable bed by means of rototilling and subsequent raking. Roll lightly and rake wherever topsoil is too loose.
- .3 Leave surface smooth, uniform, firm against deep foot printing, with a fine loose texture.

- E12.7.3 Surplus Material
.1 Dispose of surplus topsoil not required for fine grading and landscaping, off Site.

- E12.8 Measurement and Payment
(a) No separate measurement or payment shall be made for Topsoil and Finish Grading. This Work shall be incidental to Sodding.

E13. SODDING

E13.1 General Description

- E13.1.1 This Specification shall cover the supply and installation of sod for areas as specified herein and as indicated on the Drawings, and in accordance with CW 3510-R9.
- E13.1.2 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 other things necessary for and incidental to the satisfactory performance and completion of all Work as hereinafter specified and in accordance with CW 3510-R9.

E13.2 Materials

- E13.2.1 Nursery sod for general park areas, boulevards, medians and interchange areas, as per CW 3510-R9.

E13.3 Construction Method

- E13.3.1 Construction method shall conform to CW 3510-R9.

E13.4 Method of Measurement and Basis of Payment

- (a) Sodding will be paid for on a square metre basis. Price shall be payment in full for supplying materials and for performing the Work.

E14. LANDSCAPE MAINTENANCE – SODDING ONLY

E14.1 General Description

- E14.1.1 This Specification shall cover the maintenance of sodded areas, as specified herein and as indicated on the Drawings, following acceptance of the Work and issuance of the Certificate of Substantial Performance.
- E14.1.2 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 other things necessary for and incidental to the satisfactory performance and completion of all Work as hereinafter specified.
- E14.1.3 The Contractor shall maintain all areas with the limit of Work as indicated on the Drawings, in accordance with these Specifications, and as directed by the Contract Administrator.
- E14.1.4 In general, the Work shall include mowing, weed control and fertilizing.

E14.2 Maintenance and Guarantee Period

- E14.2.1 Maintenance shall occur between the date of installation and up to a period of thirty (30) days from date of the issuance of the Certificate of Substantial Performance, or until turf is established in accordance with CW 3510-R9 (or latest version), for sodded areas.

E14.3 Materials and Equipment

- E14.3.1 Materials shall conform to E12 Topsoil and Finish Grading, E13: Sodding.
- E14.3.2 Provide all equipment to properly execute Work. Maintain such equipment in a workable, safe condition while in use during this project.
- E14.4 Construction Method
- E14.4.1 General
- .1 Provide weeding services within 48 hours and re-seeding within five (5) days of the request by the Contract Administrator. Monitor the Site and advise the Contract Administrator of conditions that might void the Contractor's warranty.
 - .2 The Contractor shall maintain a log noting times, dates, equipment used, and quantity of materials used and areas treated for each maintenance application. Submit log to Contract Administrator upon request. Contractor shall notify Contract Administrator of the exact time Contractor proposes to commence each application.
 - .3 Schedule operations in accordance with growth, health, weather conditions, and use of Site.
 - .4 Perform each operation continuously and completely within a reasonable time period.
 - .5 Store equipment and materials off Site.
 - .6 Collect and dispose of debris or excess material on daily basis.
- E14.4.2 Mowing
- .1 Mow grass at height of 50 - 60 mm, do not allow to grow past 80 mm. Do not cut more than 1/3 of the grass height at any one mowing, unless otherwise directed by the Contract Administrator.
 - .2 Do not remove clippings from grassed areas.
- E14.4.3 Weed Control
- .1 The Contractor shall apply herbicide when broadleaf weeds start developing in competition with grasses.
 - .2 Apply herbicide in accordance with manufacturer's instructions and the Manitoba Agriculture Guide to Chemical Weed Control latest edition.
 - .3 Use 2.4D Amine or MCPA Amine herbicide for susceptible broadleaf weeds.
 - .4 Use a mixture containing 2.4-D Amine or MCPA Amine. Mecoprop and Dicamba for 2.4-D resistant plants.
 - .5 Avoid use of pure Dicamba solutions near trees.
 - .6 Do not apply to newly seeded turf until after the second mowing, or as directed by the Contract Administrator.
 - .7 Do not water within 24 hours after application.
 - .8 Apply when winds are less than 20 km/h and air temperature is above 10°C.
- E14.4.4 Fertilizing
- .1 Apply 2:11 ratio fertilizer at rate of 0.2 kg nitrogen/100 m².
 - .2 Apply in early spring as soon as frost is out of ground.
 - .3 Make supplementary application of 0.2 kg nitrogen/100 m² towards end of August.
 - .4 Use mechanical spreading equipment.
 - .5 Check calibration to ensure specified rate is spread evenly. Rectify uneven spreading as soon as it becomes apparent. Spread additional fertilizer over areas affected or rake out excess application.
 - .6 Water immediately after fertilizing to obtain moisture penetration of 40-50 mm.
- E14.5 Extension of Maintenance Period
- .1 At the end of the maintenance period, all sodded areas must show signs of growth satisfactory to the Contract Administrator and in accordance with E15: Sodding.

- .2 Unsatisfactory areas shall be replaced and maintained by and at the expense of the Contractor, to the satisfaction of the Contract Administrator.

E14.6 Measurement and Payment

- (a) No separate measurement or payment shall be made for Landscape Maintenance. This Work shall be incidental to Sodding.

E15. SITE FURNISHINGS

E15.1 General Description

E15.1.1 This Specification shall cover the supply and installation of Post Fencing as indicated on the Drawings.

E15.1.2 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 Work as specified herein.

E15.2 Materials

Post Fencing as per drawing details

E15.3 Construction Methods

E15.3.1 All Work is to be located and installed in accordance with the Drawings using approved non-rusting, vandal resistant fasteners to ensure solid, durable, finished work suitable for the purpose intended.

E15.3.2 All furnishings and fixtures to be installed plumb and true to correct elevations and location, as directed by the Contract Administrator. The Contractor shall confirm proposed locations of all site furnishings with Contract Administrator prior to installation.

E15.4 Method of Measurement

E15.4.1 The supply and installation of Post Fencing, shall be measured on a Unit Basis. The number of units to be paid for shall be the total number that are installed in accordance with this Specification and accepted by the Contract Administrator, as calculated from measurements made by the Contract Administrator.

E15.5 Basis of Payment

E15.5.1 The supply and installation of Post Fencing, shall be paid for at the Contract Unit Price per unit for the "Items of Work" listed below, measured as specified herein, which price shall be payment in full for supplying all materials and performing all operation herein described and all other items incidental to the Work included in this Specification.

E15.5.2 Items of Work:

- (i) Post Fencing

E16. RENEWAL OF EXISTING CURBS

E16.1 Renewal of existing curbs shall be done in accordance with City of Winnipeg's Standard Construction Specification CW3240-R6. Contractor shall remove and dispose of existing concrete curb at locations shown on the Drawings or as directed by the Contract Administrator. Existing asphalt surface to be retained. Contractor shall install new concrete curb with ramp profile as per SD-229B Median Sidewalk Crossing. Height to meet existing curb edges, length 4.8m for each curb ramp.

E16.2 Measurement and Payment

- (a) Demolition, removal and renewal will be paid for on a unit cost basis. Price shall be payment in full for performing all Work to replace existing barrier curb with ramp flare curb.

E17. CHAIN LINK FENCING

E17.1 The supply and installation of chain link fencing shall be done in accordance with City of Winnipeg's Standard Construction Specification CW3550-R2. Contractor shall install fence with baffle gates as per Drawing detail and at locations shown on the Drawing Plans, or as directed by the Contract Administrator.

E17.2 **Measurement and Payment**
Supply and installation will be paid for on a lineal metre basis. Price shall be payment in full for supplying all materials and performing all operation herein described and all other items incidental to the Work included in this Specification.

E18. DRAINAGE CULVERT

E18.1 **Description**

E18.1.1 Further to CW 3120-R1, this Specification shall cover the supply and installation of PVC Pipe Culvert.

E18.1.2 This Work shall consist of providing and placing culvert pipe as shown on the Site Drawings. The culvert installation shall be in accordance with these Specifications and in reasonably close conformity with the locations and dimensions as shown in the plans and detail or as approved by the Contract Administrator in accordance with B6.

E18.2 **Materials**

E18.2.1 **Drainage Pipe**
150mm Ø, non-perforated, Polyvinyl Chloride (PVC) pipe. Provide sand bedding and backfill as required to complete the Work.

E18.2.2 **Drain Inlet Protection**
Slotted catch basin lid to suit pipe diameter. Foam Polyolefin with UV inhibitor or approved equivalent.

E18.3 **Construction Methods**

E18.3.1 The layout of the culvert is to be marked on site and approved by the Contract Administrator.

E18.3.2 The work shall be installed as per CW 3120-R1 and as shown on the drawings.

E18.3.3 Where delays in construction do not allow for immediate seeding and sodding after area drain installation, drain inlet protection shall be installed to prevent erosion.

E18.4 **Measurement and Payment**
Supply and installation will be paid for on a lineal metre basis. Price shall be payment in full for supplying all materials and performing all operation herein described and all other items incidental to the Work included in this Specification.