



THE CITY OF WINNIPEG

BID OPPORTUNITY

BID OPPORTUNITY NO. 1137-2017

**RIVERBANK STABILIZATION AND EROSION PROTECTION WORKS
AT CORNISH LIBRARY - 20 WEST GATE
PROJECT NO. 2017-149**

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

- B1.1 RIVERBANK STABILIZATION AND EROSION PROTECTION WORKS AT CORNISH LIBRARY – 20 WEST GATE – PROJECT NO. 2017-149.

B2. SUBMISSION DEADLINE

- B2.1 The Submission Deadline is 4:00 p.m. Winnipeg time, February 6, 2018.
- 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 shall attend a Site meeting at 1:30 pm on January 26, 2018 to review the Site Works. The Site meeting will convene at Cornish Library located on 20 West Gate. Attendance is encouraged but not mandatory.
- B3.2 The Bidder is advised to review construction access locations and consider alternate access routes which may be proposed for review and acceptance by the Contract Administrator.
- B3.3 The Bidder shall not be entitled to rely on any information or interpretation received at the Site Meeting unless that information or interpretation is the Bidder's direct observation, or is provided by the Contract Administrator in writing.

B4. ENQUIRIES

- B4.1 All enquiries shall be directed to the Contract Administrator identified in 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. 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/>

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.

B6.2.3 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.

B7. SUBSTITUTES

B7.1 The Work is based on the Plant, Materials and methods specified in the Bid Opportunity.

B7.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.

B7.3 Requests for approval of a substitute will not be considered unless received in writing by the Contract Administrator at least five (5) Business Days prior to the Submission Deadline.

B7.4 The Bidder shall ensure that any and all requests for approval of a substitute:

- (a) provide sufficient information and details to enable the Contract Administrator to determine the acceptability of the Plant, Material or method as either an approved equal or alternative;
- (b) identify any and all changes required in the applicable Work, and all changes to any other Work, which would become necessary to accommodate the substitute;
- (c) identify any anticipated cost or time savings that may be associated with the substitute;
- (d) certify that, in the case of a request for approval as an approved equal, the substitute will fully perform the functions called for by the general design, be of equal or superior substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance;
- (e) certify that, in the case of a request for approval as an approved alternative, the substitute will adequately perform the functions called for by the general design, be similar in substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance.

- B7.5 The Contract Administrator, after assessing the request for approval of a substitute, may in his/her sole discretion grant approval for the use of a substitute as an “approved equal” or as an “approved alternative”, or may refuse to grant approval of the substitute.
- B7.6 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, to the Bidder who requested approval of the substitute.
- B7.6.1 The Contract Administrator will issue an Addendum, disclosing the approved materials, equipment, methods and products to all potential Bidders. The Bidder requesting and obtaining the approval of a substitute shall be responsible for disseminating information regarding the approval to any person or persons he/she wishes to inform.
- B7.7 If the Contract Administrator approves a substitute as an “approved equal”, any Bidder may use the approved equal in place of the specified item.
- B7.8 If the Contract Administrator approves a substitute as an “approved alternative”, any Bidder bidding that approved alternative may base his/her Total Bid Price upon the specified item but may also indicate an alternative price based upon the approved alternative. Such alternatives will be evaluated in accordance with B16.
- B7.9 No later claim by the Contractor for an addition to the Total Bid Price because of any other changes in the Work necessitated by the use of an approved equal or an approved alternative will be considered.

B8. BID 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
 - (ii) 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.
- B8.4 The Bid Submission may be submitted by mail, courier or personal delivery, or by facsimile transmission.
- B8.5 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
- B8.5.1 Samples or other components of the Bid Submission which cannot reasonably be enclosed in the envelope may be packaged separately, but shall be clearly marked with the Bid Opportunity number, the Bidder's name and address, and an indication that the contents are part of the Bidder's Bid Submission.
- B8.6 If the Bid Submission is submitted by facsimile transmission, it shall be submitted to 204-949-1178.

- B8.6.1 The Bidder is advised that the City cannot take responsibility for the availability of the facsimile machine at any time.
- B8.7 Bidders are advised not to include any information/literature except as requested in accordance with B8.1.
- B8.8 Bidders are advised that inclusion of terms and conditions inconsistent with the Bid Opportunity document, including the General Conditions, will be evaluated in accordance with B16.1(a).
- B8.8.1 Bids submitted by internet electronic mail (e-mail) will not be accepted.

B9. BID

- B9.1 The Bidder shall complete Form A: Bid, making all required entries.
- B9.2 Paragraph 2 of Form A: Bid shall be completed in accordance with the following requirements:
- (a) if the Bidder is a sole proprietor carrying on business in his/her own name, his/her name shall be inserted;
 - (b) if the Bidder is a partnership, the full name of the partnership shall be inserted;
 - (c) if the Bidder is a corporation, the full name of the corporation shall be inserted;
 - (d) if the Bidder is carrying on business under a name other than his/her own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.
- B9.2.1 If a Bid is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B9.2.
- B9.3 In Paragraph 3 of Form A: Bid, the Bidder shall identify a contact person who is authorized to represent the Bidder for purposes of the Bid.
- B9.4 Paragraph 11 of Form A: Bid shall be signed in accordance with the following requirements:
- (a) if the Bidder is a sole proprietor carrying on business in his/her own name, it shall be signed by the Bidder;
 - (b) if the Bidder is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;
 - (c) if the Bidder is a corporation, it shall be signed by its duly authorized officer or officers;
 - (d) if the Bidder is carrying on business under a name other than his/her own, it shall be signed by the registered owner of the business name, or by the registered owner's authorized officials if the owner is a partnership or a corporation.
- B9.4.1 The name and official capacity of all individuals signing Form A: Bid should be printed below such signatures.
- B9.4.2 All signatures shall be original.
- B9.5 If a Bid is submitted jointly by two or more persons, the word "Bidder" shall mean each and all such persons, and the undertakings, covenants and obligations of such joint Bidders in the Bid and the Contract, when awarded, shall be both joint and several.

B10. PRICES

- B10.1 The Bidder shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.
- B10.2 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) Trek Geotechnical, Winnipeg, Manitoba
- (b) North/South Consultants Inc., Winnipeg, Manitoba
- (c) Public City Architecture Inc., Winnipeg, Manitoba

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);

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) Written confirmation of a safety and health certification meeting SAFE Work Manitoba's SAFE Work Certified Standard (e.g., COR™ and SECOR™) or
 - (i) 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

- (ii) 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
- (b) a report or letter to that effect from an independent reviewer acceptable to the City. (A list of acceptable reviewers and the review template are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>).

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

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

B13. OPENING OF BIDS AND RELEASE OF INFORMATION

B13.1 Bids will not be opened publicly.

B13.2 Following the submission deadline, the names of the Bidders and their Total Bid Prices (unevaluated, and pending review and verification of conformance with requirements) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/bidopp.asp>

B13.3 After award of Contract, the name(s) of the successful Bidder(s), their address(es) and the Contract amount(s) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>

B13.4 The Bidder is advised that any information contained in any Bid may be released if required by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law or by City policy or procedures (which may include access by members of City Council).

B13.5 To the extent permitted, the City shall treat as confidential information, those aspects of a Bid Submission identified by the Bidder as such in accordance with and by reference to Part 2, Section 17 or Section 18 or Section 26 of The Freedom of Information and Protection of Privacy Act (Manitoba), as amended.

B14. IRREVOCABLE BID

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

B14.2 The acceptance by the City of any Bid shall not release the Bids of the next two lowest evaluated responsive Bidders and these Bidders shall be bound by their Bids on such Work for the time period specified in Paragraph 9 of Form A: Bid.

B15. WITHDRAWAL OF BIDS

B15.1 A Bidder may withdraw his/her Bid without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.

B15.1.1 Notwithstanding 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.

- B15.1.2 The City will assume that any one of the contact persons named in Paragraph 3 of Form A: Bid or the Bidder's authorized representatives named in Paragraph 11 of Form A: Bid, and only such person, has authority to give notice of withdrawal.
- B15.1.3 If a Bidder gives notice of withdrawal prior to the Submission Deadline, the Manager of Materials will:
- (a) retain the Bid until after the Submission Deadline has elapsed;
 - (b) open the Bid to identify the contact person named in Paragraph 3 of Form A: Bid and the Bidder's authorized representatives named in Paragraph 11 of Form A: Bid; and
 - (c) if the notice has been given by any one of the persons specified in B15.1.3(b), declare the Bid withdrawn.
- B15.2 A Bidder who withdraws his/her Bid after the Submission Deadline but before his/her Bid has been released or has lapsed as provided for in B14.2 shall be liable for such damages as are imposed upon the Bidder by law and subject to such sanctions as the Chief Administrative Officer considers appropriate in the circumstances. The City, in such event, shall be entitled to all rights and remedies available to it at law.

B16. EVALUATION OF BIDS

- B16.1 Award of the Contract shall be based on the following bid evaluation criteria:
- (a) compliance by the Bidder with the requirements of the Bid Opportunity or acceptable deviation 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.
- B16.2 Further to B16.1(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.
- B16.3 Further to B16.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in his/her Bid or in other information required to be submitted, that he/she is responsible and qualified.
- B16.4 Further to B16.1(c), the Total Bid Price shall be the sum of the quantities multiplied by the unit prices for each item shown on Form B: Prices.
- B16.4.1 Further to B16.1(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.

B17. AWARD OF CONTRACT

- B17.1 The City will give notice of the award of the Contract or will give notice that no award will be made.
- B17.2 The City will have no obligation to award a Contract to a Bidder, even though one or all of the Bidders are determined to be responsible and qualified, and the Bids are determined to be responsive.
- B17.2.1 Without limiting the generality of B17.2, the City will have no obligation to award a Contract where:
- (a) the prices exceed the available City funds for the Work;
 - (b) the prices are materially in excess of the prices received for similar work in the past;

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

B17.3 Where an award of Contract is made by the City, the award shall be made to the responsible and qualified Bidder submitting the lowest evaluated responsive Bid, in accordance with B16.

B17.3.1 Following the award of Contract, a Bidder will be provided with information related to the evaluation of his/her Bid upon written request to the Contract Administrator.

B17.4 Notwithstanding C4, the City may issue a Purchase Order to the successful Bidder in lieu of the execution of a Contract.

B17.5 The Contract, as defined in C1.1, in its entirety shall be deemed to be incorporated in and to form a part of the Purchase Order notwithstanding that it is not necessarily attached to or accompany said Purchase Order.

PART C - GENERAL CONDITIONS

C0. GENERAL CONDITIONS

- C0.1 The *General Conditions for Construction* (Revision 2006 12 15) are applicable to the Work of the Contract.
- C0.1.1 The *General Conditions for Construction* are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at http://www.winnipeg.ca/matmgt/gen_cond.stm
- 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 riverbank stabilization and erosion protection works at the Cornish Library located at 20 West Gate, Winnipeg, Manitoba.

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

(a) General

(i) Mobilization and Demobilization;

- Secure Site Fencing and Gates;
- Traffic Control;
- Temporary Access Roadway;
- Pedestrian Safety;
- Site Office Facilities;
- Existing Infrastructure and Utilities;
- Refuse and Recycling.

(ii) Site Access and Development

- Temporary Access Ramp;
- Removal of Existing Trees;
- Clearing and Grubbing.

(iii) Regrading

(iv) Common Excavation

(b) Slope Stabilization and Erosion Protection

- (i) Supply and installation of geotextile;
- (ii) Supply and installation of riprap.

(c) Site Restoration

- (i) Supply and Install Erosion Control Blanket;
- (ii) Supply and Install Seed and Topsoil.

D3. CONTRACT ADMINISTRATOR

D3.1 The Contract Administrator is TREK Geotechnical, represented by:

Ryan Belbas, M.Sc., P.Eng.
Senior Geotechnical Engineer

Telephone No. 204 975-9433 ext. 113

Email Address rbelbas@trekgeotechnical.ca

D3.2 At the pre-construction meeting, Mr. Ryan Belbas will identify additional personnel representing the Contract Administrator and their respective roles and responsibilities for the Work.

D3.3 Bids Submissions must be submitted to the address in B8.

D4. CONTRACTOR'S SUPERVISOR

D4.1 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. OWNERSHIP OF INFORMATION, CONFIDENTIALITY AND NON DISCLOSURE

D5.1 The Contract, all deliverables produced or developed, and information provided to or acquired by the Contractor are the property of the City of Winnipeg and shall not be appropriated for the Contractor's own use, or for the use of any third party.

D5.2 The Contractor shall not make any public announcements or press releases regarding the Contract, without the prior written authorization of the Contract Administrator.

D5.3 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 of Winnipeg 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.

D5.4 A Contractor who violates any provision of D5 may be determined to be in breach of Contract.

D6. NOTICES

D6.1 Except as provided for in C23.2.2, all notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the Contractor shall be sent to the address or facsimile number identified by the Contractor in Paragraph 2 of Form A: Bid.

D6.2 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the City of Winnipeg, except as expressly otherwise required in D6.3, 0 or elsewhere in the Contract, shall be sent to the attention of the Contract Administrator at the facsimile number identified in D3.1.

D6.3 Notwithstanding C21., all notices of appeal to the Chief Administrative Officer shall be sent to the attention of the Chief Financial Officer at the following:

The City of Winnipeg
Attn: Chief Financial Officer
Office of the Chief Administrative Officer
Susan A. Thompson Building
2nd Floor, 510 Main Street
Winnipeg MB R3B 1B9

D6.4 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications required to be submitted or returned to the City Solicitor shall be sent to the following facsimile number:

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

D6.1 Bids Submissions must not be submitted to the above facsimile number. Bids must be submitted in accordance with B8.

D7. FURNISHINGS OF DOCUMENTS

- D7.1 Upon award of the Contract, the Contractor will be provided with five (5) complete sets of the Bid opportunity. If the Contractor requires additional sets of the Bid Opportunity, they will be supplied to him/her at cost.

SUBMISSIONS

D8. AUTHORITY TO CARRY ON BUSINESS

- D8.1 The Contractor shall be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba, or if the Contractor does not carry on business in Manitoba, in the jurisdiction where the Contractor does carry on business, throughout the term of the Contract, and shall provide the Contract Administrator with evidence thereof upon request.

D9. SAFE WORK PLAN

- D9.1 The Contractor shall provide the Contract Administrator with a Safe Work Plan at least five (5) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.
- D9.2 The Safe Work Plan should be prepared and submitted in the format shown in the City of Winnipeg's template which is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/Safety/default.stm>

D10. INSURANCE

- D10.1 The Contractor shall provide and maintain the following insurance coverage:
- (a) commercial general liability insurance, in the amount of at least two million dollars (\$2,000,000.00) inclusive, with The City of Winnipeg added as an additional insured, with a cross-liability clause, such liability policy to also contain contractual liability, unlicensed motor vehicle liability, non-owned automobile liability and products and completed operations, to remain in place at all times during the performance of the Work and throughout the warranty period;
 - (b) automobile liability insurance 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 \$2,000,000 inclusive for loss or damage including personal injuries and death resulting from any one accident or occurrence;
 - (c) an all risk floater, carrying adequate limits to cover all machinery, equipment, supplies and/or materials intended to enter into and form part of any installation.
 - (d) An all risks property insurance policy to cover all equipment and tools that may be owned, rented, leased or borrowed to be used in conjunction with the scope of work.
- D10.2 Deductibles shall be borne by the Contractor.
- D10.3 The Contractor shall provide the Contract Administrator with a certificate(s) of insurance, in a form satisfactory to the City of Winnipeg 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.
- D10.4 The Contractor shall not cancel, materially alter, or cause each policy to lapse without providing at least thirty (30) Calendar Days prior written notice to the Contract Administrator.

D10.5 All policies must be taken out with insurers licensed to carry on business in the Province of Manitoba.

D11. PERFORMANCE SECURITY

D11.1 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.

D11.1.1 Where the performance security is in the form of a certified cheque or draft, it will be deposited by the City of Winnipeg. The City of Winnipeg will not pay any interest on certified cheques or drafts furnished as performance security.

D11.2 The Contractor shall provide the City of Winnipeg 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.

D12. SUBCONTRACTOR LIST

D12.1 The Contractor shall provide the Contract Administrator with a complete list of the Subcontractors whom the Contractor proposes to engage (Form J: Subcontractor List) at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than seven (7) Calendar Days from notification of the award of Contract.

D13. DETAILED WORK SCHEDULE

D13.1 The Contractor shall provide the Contract Administrator with a detailed work schedule at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.

D13.2 The detailed work schedule shall consist of the following:

- (a) a critical path method (C.P.M.) schedule for the Work;
- (b) a Gantt chart for the Work based on the C.P.M. schedule;
- (c) a daily manpower schedule for the Work;

all acceptable to the Contract Administrator.

D13.3 Further to D13.2(a), the C.P.M. schedule shall clearly identify the start and completion dates of all of the following activities/tasks making up the Work as well as showing those activities/tasks on the critical path:

D13.4 Further to D13.2(b), the Gantt chart shall show the time on a weekly basis, required to carry out the Work of each trade, or specification division. The time shall be on the horizontal axis, and the type of trade shall be on the vertical axis.

D13.5 Further to D13.2(c), the daily manpower schedule shall list the daily number of individuals on the Site for each trade.

D14. SITE ACCESS AND CONSTRUCTION STAGING PLAN

- D14.1 The Contractor shall provide the Contract Administrator with a Site Access and Development and Construction Staging Plans 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.
- D14.2 The Site Access and Development and Construction Staging Plans should clearly identify the following:
- D14.2.1 The Contractor's proposed grades, and proposed materials to be used in construction of the access roadways and access ramps. The Contractor may choose to use the access roadway and access ramps detailed on the drawings or propose alternate locations for approval by the Contract Administrator. The Contractor shall be responsible to apply and pay for a Waterway Permit, if required, for any proposed alternate river access ramps.
- D14.2.2 The Contractor's proposed sequence of Work activities to construct the specified Works.
- D14.3 The Site Access and Development and Construction Staging Plans must clearly demonstrate that at no point during construction shall there be any adverse impacts on riverbank stability. The Contractor shall not be permitted to proceed with Work until the Site Access and Development and Construction Staging Plans have been approved in writing by the Contract Administrator.

SCHEDULE OF WORK

D15. COMMENCEMENT

- D15.1 The Contractor shall not commence any Work until he/she is in receipt of a Purchase Order from the Award Authority authorizing the commencement of the Work.
- D15.2 The Contractor shall not commence any Work on the Site until:
- (a) the Contract Administrator has confirmed receipt and approval of:
 - (i) evidence of authority to carry on business specified in D8;
 - (ii) evidence of the workers compensation coverage specified in C6.15;
 - (iii) the Safe Work Plan specified in D9;
 - (iv) evidence of the insurance specified in D10;
 - (v) the performance security specified in D11;
 - (vi) the Subcontractor list specified in D12; and
 - (vii) the detailed work schedule specified in D13.
 - (b) the Contractor has attended a pre-construction meeting with the Contract Administrator, or the Contract Administrator has waived the requirement for a pre-construction meeting.
- D15.3 The Contractor shall commence the Work on the Site within seven (7) Working Days of receipt of the Purchase Order.
- D15.4 The City of Winnipeg intends to award this Contract by February 9, 2018.
- D15.4.1 If the actual date of award is later than the intended date, the dates specified for Critical Stages, Substantial Performance, and Total Performance will be adjusted by the difference between the aforementioned intended and actual dates.

D16. SUBSTANTIAL PERFORMANCE

- D16.1 The Contractor shall achieve Substantial Performance by March 15, 2018.
- D16.2 When the Contractor considers the Work to be substantially performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for

purposes of verifying Substantial Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be re-inspected.

D16.3 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.

D17. TOTAL PERFORMANCE

D17.1 The Contractor shall achieve Total Performance by July 15, 2018.

D17.2 When the Contractor or the Contract Administrator considers the Work to be totally performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Total Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be re-inspected.

D17.3 The date on which the Work has been certified by the Contract Administrator as being totally performed to the requirements of the Contract through the issue of a certificate of Total Performance is the date on which Total Performance has been achieved.

D17.4 Further to Clause 3.7 of CW 1120, when Total Performance is not achieved in the year the Contract is commenced, the Contractor shall temporarily repair any Work commenced and not completed to the satisfaction of the Contract Administrator. The Contractor shall maintain the temporary repairs in a safe condition as determined by the Contract Administrator until permanent repairs are completed. The Contractor shall bear all costs associated with temporary repairs and their maintenance.

D18. LIQUIDATED DAMAGES

D18.1 If the Contractor fails to achieve Critical Stages, Substantial Performance or Total Performance in accordance with the Contract by the days fixed herein for same, the Contractor shall pay the City of Winnipeg the following amounts per Working Day for each and every Working Day following the days fixed herein for same during which such failure continues:

- (a) Substantial Performance as specified in D17.1 – one thousand five hundred dollars (\$1,500.00);
- (b) Total Performance as specified in D18.1 – two thousand dollars (\$2,000.00).

D18.2 The amounts specified for liquidated damages in D18.1 are based on a genuine pre-estimate of the City of Winnipeg's losses in the event that the Contractor does not achieve critical stages, Substantial Performance or Total Performance by the days fixed herein for same.

D18.3 The City of Winnipeg may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

D19. SCHEDULED MAINTENANCE

D19.1 Determination of Substantial Performance and Total Performance shall be exclusive of scheduled maintenance identified herein. All scheduled maintenance shall be completed prior to the expiration of the warranty period. Where the scheduled maintenance cannot be completed during the warranty period, the warranty period shall be extended for such period of time as it takes the Contractor to complete the scheduled maintenance.

D20. RESTRICTED WORK HOURS

D20.1 All Work shall be carried out between the hours of 07:00 and 22:00, Monday to Friday, and between 09:00 and 21:00 on Saturdays, Sundays, Civic, or Public Holidays.

D20.2 No Work shall be performed outside of the hours stated in D22.1 without written permission from the Contract Administrator. Approval will only be granted if it is in the best interests of the City of Winnipeg to do so.

D20.3 Further to Clause 3.10 of CW 1130, "Site Requirements", the Contractor shall require written permission forty-eight (48) hours in advance from the Contract Administrator for any Work to be performed outside the hours outlined in D22.1.

CONTROL OF WORK

D21. JOB MEETINGS

D21.1 Regular weekly job meetings will be held at the Site. These meetings shall be attended by a minimum of one representative of the Contract Administrator, one representative of the City of Winnipeg and one representative of the Contractor. Each representative shall be a responsible person capable of expressing the position of the Contract Administrator, the City of Winnipeg and the Contractor respectively on any matter discussed at the meeting including the Work schedule and the need to make any revisions to the Work schedule. The progress of the Work will be reviewed at each of these meetings.

D21.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he/she deems it necessary.

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

D22.1 Further to C6.24, 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).

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

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

D24. WORK BY OTHERS

D24.1 Work by others on or near the Site will include but not necessarily be limited to:

- (a) City of Winnipeg Traffic Services Branch – Set-up, maintenance and removal of signage and traffic control;
- (b) Contract Administrator – Instrumentation monitoring, repair and/or installation of new riverbank or structure instrumentation, slope stabilization layout and Contractor layout checks.
- (c) Any additional unidentified Work if deemed necessary.

D25. PROTECTION OF RIVER CHANNEL

D25.1 Should the Contractor deposit any unauthorized material in the river channel, he shall take steps to immediately remove the material and restore the channel to its original condition.

D25.2 The Site shall be left in a neat and presentable condition in the time period from river break-up to the commencement of Site restoration activities as soon as weather permits and prior to completion of Total Performance, as set out in D19.

- D25.3 The Contractor shall obtain a "Frozen Waterways Permit" from the Chief of Police Office (986-5999) prior to undertaking any Work on the river, including building or making ice in preparation for construction.

MEASUREMENT AND PAYMENT

D26. INVOICES

- D26.1 Further to C12, the Contractor shall submit an invoice for each portion of Work performed. to:

The City of Winnipeg
Corporate Finance - Accounts Payable
4th Floor, Administration Building, 510 Main Street
Winnipeg MB R3B 1B9

Facsimile No.: 204-949-0864

Email: CityWpgAP@winnipeg.ca

- D26.2 Invoices must clearly indicate, as a minimum:

- (a) the City of Winnipeg's purchase order number;
- (b) date of delivery;
- (c) delivery address;
- (d) type and quantity of work performed;
- (e) the amount payable with GST and MRST shown as separate amounts; and
- (f) the Contractor's GST registration number.

- D26.3 The City of Winnipeg will bear no responsibility for delays in approval of invoices which are improperly submitted.

- D26.4 Bid Submissions must not be submitted to the above facsimile number. Bids must be submitted in accordance with B8.**

D27. PAYMENT

- D27.1 Further to C12, the City of Winnipeg may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

WARRANTY

D28. WARRANTY

- D28.1 Warranty is as stated in C13.

FORM H1: PERFORMANCE BOND
(See D11)

KNOW ALL MEN BY THESE PRESENTS THAT

_____ ,
(hereinafter called the "Principal"), and

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

_____ dollars (\$_____)

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

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

**BID OPPORTUNITY NO. 1137-2017 – RIVERBANK STABILIZATION AND PROTECTION WORKS AT
CORNISH LIBRARY – 20 WEST GATE – PROJECT NO. 2017-149**

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 D11)

(Date)

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

RE: PERFORMANCE SECURITY - BID OPPORTUNITY NO. 1137-2017

RIVERBANK STABILIZATION AND EROSION PROTECTION WORKS AT CORNISH LIBRARY –
20 WEST GATE – PROJECT NO. 2017-149

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)

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) of the General Conditions for Construction (Rev. 2006-12-15), the 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>
1-R2	Site Plan – Proposed Erosion Protection Works
2-R2	Cross Sections A and B Proposed Erosion Protection Works
3-R2	Cross Section C Proposed Erosion Protection Works

E2. SOILS INVESTIGATION REPORT

- E2.1 Further to C3.1, Geotechnical Investigation and Hydraulic Engineering and Assessment Reports by Trek Geotechnical are included as Appendices A, B and C to aid the bidder's evaluation of the existing soil conditions and design of the stabilization works during the Bid period. Test hole logs and laboratory soil test results are provided in the Geotechnical Investigation Report. The information is considered accurate at the test hole locations at the time of geotechnical investigation. However, considerable variations in the soil conditions may exist between test holes and fluctuations in ground water levels can be expected seasonally.
- E2.2 Bidders are responsible for their interpretation of the supplied information and are expected to perform an additional sub-surface investigation as they feel necessary to satisfy themselves.
- E2.3 Any test borings or test excavations made by the Bidder shall be done in accordance with the requirements of the appropriate authority of the City of Winnipeg. Bidders shall notify the Contract Administrator prior to starting any soil boring or test excavation.

E3. VERIFICATION OF WEIGHTS

- E3.1 All material which is paid for on a weight basis shall be weighed on a scale certified by consumer and Corporate Affairs, Canada.
- E3.1.1 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.
- E3.1.2 The tare weight and net weight may be either by hand written or machine printed. All weights, scales and procedures shall be subject to inspection and verification by the Contract Administrator. No charge shall be made to the City of Winnipeg or Contract Administrator for any delays or loss of production caused by such inspection and verification. 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; and
- (d) Checking tare weights shown on delivery tickets against a current tare.

E3.1.3 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.

E3.1.4 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 numbers of the truck and trailers; and
- (d) The time and date of weighing.

E4. TRUCK WEIGHT LIMITS

E4.1 The City of Winnipeg or Contract Administrator shall not pay for any portion of Material which results in the vehicle exceeding the maximum gross vehicle weight allowed under The City of Winnipeg Traffic By-Law, unless such vehicle is operating under special permit.

E5. WATERWAY BY-LAW AND PERMITS

E5.1 Pursuant to Waterway By-Law 5888/92, the City of Winnipeg will apply and pay for the required Waterway Permits for the Work. The Contractor is responsible for following to all required permits and permissions that are necessary for Site access, including a Waterways Permit, required by the City of Winnipeg. Contact the City of Winnipeg or Kendall Thiessen, Ph. D., P.Eng., Riverbank Management Engineer at 204-986-5159 for information regarding Waterways Permits.

E6. ENVIRONMENTAL PROTECTION PLAN

E6.1 The Contractor shall plan and implement the Work of this Contract strictly in accordance with the requirements of the Environmental Protection Plan as herein specified, Fisheries Authorization & CEAA Screening report.

E6.2 The Contractor is advised that at least the following Acts, Regulations, and By-laws apply to the Work and are available for viewing at the office of the Client.

E6.2.1 Federal

- (a) Canadian Environmental Assessment Act (CEAA), 1992 c.37;
- (b) Canadian Environmental Protection Act;
- (c) Fisheries Act, 1985 c.F-14;
- (d) Transportation of Dangerous Goods Act and Regulations, c.34;
- (e) Species at Risk Act, c.29;
- (f) Fisheries and Oceans Policy for the Management of Fish Habitat 1986;
- (g) Navigable Waters Best Practices; and
- (h) Any other applicable Acts, Regulations, and By-laws.

E6.2.2 Provincial

- (a) The Dangerous Goods Handling and Transportation Act, D12;

- (b) The Endangered Species Act, E111;
- (c) The Environment Act, c.E125;
- (d) The Fire Prevention Act, F80;
- (e) The Manitoba Heritage Resources Act, H39.1;
- (f) The Manitoba Noxious Weeds Act, N110;
- (g) The Manitoba Nuisance Act, N120;
- (h) The Water Protection Act, c.W65;
- (i) Current applicable Associated Regulations;
- (j) The Public Health Act, c.P210;
- (k) The Manitoba Stream Crossing Guidelines for the Protection of Fish and Fish Habitat, Manitoba National Resources, 1996;
- (l) The Workplace Safety and Health Act, W210;
- (m) And current applicable associated regulations (Note: Provincial regulations updated as of September 1999).
- (n) And any other applicable Acts, Regulations, and By-Laws.

E6.2.3 Municipal

- (a) The City of Winnipeg By-law No. 2480/79 and all amendments up to and including 7969/2000;
- (b) The City of Winnipeg Neighbourhood Liveability By-law No. 1/2008;
- (c) The City of Winnipeg By-law No. 92/2010;
- (d) City of Winnipeg Best Management Practices for Activities In and Around the City of Winnipeg's Waterways and Watercourses, City of Winnipeg 2005;
- (e) The City of Winnipeg Motor Vehicle Noise Policies and Guidelines;
- (f) The City of Winnipeg By-law No. 5888/92;
- (g) The City of Winnipeg By-law No. 1573/77 and all amendments up to and including 7670/2000; and
- (h) Any other applicable Acts, Regulations, and By-Laws.

E6.3 The Contractor is advised that the following environmental protection measures apply to the Work.

E6.3.1 Materials Handling and Storage

- (a) Construction materials shall not be deposited or stored on the riverbank or river shoreline unless written acceptance from the Contract Administrator is received in advance.
- (b) Construction materials and debris shall be prevented from entering the Assiniboine River. In the event that materials and/or debris inadvertently enter the watercourse, the Contractor shall be required to remove the material and restore the watercourse to its original condition.

E6.3.2 Fuel Handling and Storage

- (a) The Contractor shall obtain all necessary permits from Manitoba Conservation for the handling and storage of fuel products and shall provide copies to the Contract Administrator.
- (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 storage areas as approved by the Contract Administrator.
- (d) In accordance with Section 2.5 (Construction: General Guidelines) of the Manitoba Stream Crossing Guidelines for the Protection of Fish and Fish Habitat, (DFO and DNR, 1996), the Contractor shall ensure that any temporary fuel storage areas established for construction of the project are contained by an impermeable dike and are located a minimum distance of 100 metres away from the high water line of the Assiniboine River. Dikes shall be designed, constructed, and maintained to retain not less than 100% of the capacity of the total number of containers or 110% of the largest container, whichever is greatest. The dikes shall be constructed of clay or similar impervious material. If this type of material is not available, the dike shall be constructed of locally available material and lined with high density polyethylene (HDPE). Furthermore, the fuel storage area(s) shall be secured by a barrier such as a high fence and gate to prevent vandalism.
- (e) The Contractor shall ensure that all fuel storage containers are inspected daily for leaks and spillage.
- (f) Products transferred from the fuel storage area(s) to specific work sites shall not exceed the daily usage requirement.
- (g) 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.
- (h) Refuelling of mobile equipment and vehicles shall take place at least 100 metres from a watercourse.
- (i) 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.
- (j) A sufficient supply of materials, such as absorbent material and plastic oil booms, 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.

E6.3.3 Waste Handling and Disposal

- (a) The Site 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 day at any location on the construction Site, other than at a dedicated storage area as may be approved by the Contract Administrator.
- (c) All resulting debris shall be deposited at a Waste Disposal Ground operating under the authority of Manitoba Regulation #150/91. Exceptions are liquid industrial and hazardous wastes which may require special disposal methods (see SC:21.4 D).
- (d) Indiscriminate dumping, littering, or abandonment shall not take place.
- (e) No on-site burning of waste is permitted.
- (f) Waste storage areas shall not be located so as to block natural drainage.
- (g) Run-off from a waste storage area shall not be allowed to cause siltation of a watercourse.
- (h) Waste storage areas shall be left in a neat and finished appearance and/or restored to their original condition to the satisfaction of the Contract Administrator.
- (i) Equipment shall not be cleaned near watercourses; contaminated water from riverbank cleaning operations shall not be permitted to enter watercourses.

E6.3.4 Dangerous Goods/Hazardous Waste Handling and Disposal

- (a) Dangerous goods/hazardous wastes 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.
- (c) The Contractor shall have on-site staff that is trained and certified in the handling of the dangerous/hazardous goods, when said dangerous/hazardous goods are being utilized on-site for the performance of the Work.
- (d) Different waste streams shall not be mixed.
- (e) Disposal of dangerous goods/hazardous wastes shall be at approved hazardous waste facilities.
- (f) Liquid hydrocarbons shall not be stored or disposed of in earthen pits on-site.
- (g) Used oils shall be stored in appropriate drums, or tankage until shipment to waste oil recycling centres, incinerators, or secure disposal facilities approved for such wastes.
- (h) Used oil filters shall be drained, placed in suitable storage containers, and buried or incinerated at approved hazardous waste treatment and disposal facilities.
- (i) Dangerous goods/hazardous waste storage areas shall be located at least 100 metres away from the high water line and be diked.
- (j) Dangerous goods/hazardous waste storage areas shall not be located so as to block natural drainage.
- (k) Run-off from a dangerous goods/hazardous waste storage area shall not be allowed to cause siltation of a watercourse.
- (l) Dangerous goods/hazardous waste storage areas shall be left in a neat and finished appearance and/or restored to their original condition to the satisfaction of the Contract Administrator.
- (m) The Contractor shall ensure that due care and caution is taken to prevent spills.
- (n) The Contractor shall report all major spills of petroleum products or other hazardous substances with significant impact on the environment and threat to human health and safety (as defined in Table 1 below) to Manitoba Conservation, immediately after occurrence of the environmental accident, by calling the 24-hour emergency phone number (204) 945-4888. The Contract Administrator shall also be notified.
- (o) The Contractor shall designate a qualified supervisor as the on-site emergency response co-ordinator for the project. The emergency response co-ordinator shall have the authority to redirect manpower in order to respond in the event of a spill.
- (p) 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 co-ordinator:
 - (i) Notify emergency-response co-ordinator of the accident:
 - identify exact location and time of accident
 - indicate injuries, if any
 - request assistance as required by magnitude of accident (Manitoba Conservation 24-hour Spill Response Line (204) 945-4888, Police, Fire Department, Ambulance, company backup)
 - (ii) Attend to public safety:
 - stop traffic, roadblock/cordon off the immediate danger area
 - eliminate ignition sources
 - initiate evacuation procedures if necessary
 - (iii) 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 waterways, sewers, and manholes
- (iv) If safe to do so, try to stop the dispersion or flow of spill material:
- approach from upwind
 - stop or reduce leak if safe to do so
 - dike spill material with dry, inert sorbet material or dry clay soil or sand
 - prevent spill material from entering waterways and utilities by diking
 - prevent spill material from entering manholes and other openings by covering with rubber spill mats or diking
- (v) Resume any effective action to contain, clean up, or stop the flow of the spilled product.
- (q) The emergency response co-ordinator shall ensure that all environmental accidents involving contaminants shall be documented and reported to Manitoba Conservation according to The Dangerous Goods Handling and Transportation Act Environmental Accident Report Regulation 439/87.
- (r) When dangerous goods are used on-site, materials for containment and cleanup of spill material (e.g. absorbent materials, plastic oil booms, and oversized recovery drums) shall be available on-site.
- (s) Minor spills of such substances that may be contained on land with no significant impact on the environment may be responded to with in-house resources without formal notification to Manitoba Environment.
- (t) City emergency response, 9-1-1, shall be used if other means are not available.
- (u) The on-site emergency response coordinator shall contact The Canadian Coast Guard, Selkirk (204) 785-6030, if the spill material reaches and is on or in the Red or Assiniboine Rivers.

Table 1 Spills that must be reported to the Manitoba Conservation as Environmental Accidents

<u>Classification</u>	<u>Hazard</u>	<u>Reportable Quantity/Level</u>
1	Explosives	All
2.1	Compressed Gas (flammable)	100 L
2.2	Compressed Gas	100 L
2.3	Compressed Gas (toxic)	All
2.4	Compressed Gas (corrosive)	All
3	Flammable Liquids	100 L
4	Flammable Solids	1 kg
5.1	PG I & II PG III	Oxidizer 1 kg or 1 L 50 kg or 50 L
5.2	Organic Peroxide	1 kg or 1 L
6.1	PG I PG II & III	Acute Toxic 1 kg or 1 L 5 kg or 5 L
6.2	Infectious	All
7	Radioactive	Any discharge or radiation level exceeding 10 mSv/h at the package surface and 200 uSv/h at 1 m from the package surface
8	Corrosive	5 kg or 5 L
9.1	Miscellaneous	50 kg (except PCB mixtures)

9.1	PCB Mixtures	500 g
9.2	Aquatic Toxic	1 kg or 1 L
9.3	Wastes (Chronic Toxic)	5 kg or 5 L

* Container capacity (refers to container water capacity)
** PG = Packing Group(s)

E6.3.5 Vegetation

- (a) Vegetation shall not be disturbed without written permission from the Contract Administrator. The Contractor shall protect plants or trees as indicated on the Drawings which may be at risk of accidental damage as outlined in E10. Such measures may include protective fencing or signage and shall be approved in advance by the Contractor Administrator.
- (b) Vegetation approved for removal as indicated on the Drawings shall be removed from the Site immediately by the Contractor and disposed of as approved by the Contract Administrator.
- (c) Trees damaged during construction activities shall be examined by certified arborist tree care professionals at no cost to the City of Winnipeg or Contract Administrator; viable trees damaged during construction activities shall be pruned according to good practise by certified arborist tree care professionals. Damaged trees which are not viable shall be replaced at the expense of the Contractor.
- (d) Herbicides and pesticides shall not be used adjacent to any surface watercourses.
- (e) All landowners adjacent to the area of application of herbicides or pesticides shall be notified prior to the Work.
- (f) Trees or shrubs shall not be felled into watercourses.
- (g) Areas disturbed during mobilization and demobilization and Site access and development, shall be revegetated and landscaped as soon as possible in accordance with E17, or as directed by the Contract Administrator.

E6.3.6 Red and Assiniboine Rivers Navigation Protection Dangerous Goods/Hazardous Waste Handling and Disposal.

- (a) The Assiniboine River is open to navigation from approximately mid April to mid November, annually. During this period, it will be the responsibility of the Contractor to fully ensure the safety of river users.
- (b) The Contractor shall provide, install, and maintain adequate warning signs and lighting on any structure beyond the water's edge to notify boats and other craft navigating on the Red and Assiniboine River that construction is underway. These warnings shall meet the requirements of the City of Winnipeg Waterways Authority and of the Canadian Coast Guard.
- (c) Prior to commencing any applicable operations over the Assiniboine River, the Contractor shall provide to the Contract Administrator a copy of all necessary approvals received by the Contractor.

E7. MOBILIZATION AND DEMOBILIZATION

E7.1 Description

E7.1.1 This Specification shall cover all operations relating to the mobilization and demobilization of the Contractor to the Site, as specified herein.

E7.1.2 The Work to be done by the Contractor under the 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 as hereinafter specified.

E7.2 Materials

E7.2.1 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.

E7.2.2 The Contractor shall be responsible for the supply, safe storage and handling of all materials as set forth in this Specification. All materials shall be handled in a careful and workmanlike manner, to the satisfaction of the Contract Administrator.

E7.3 Equipment

E7.3.1 All equipment, implements, tools and facilities used shall be of a size and type as required to complete the Work within reasonable time and at minimal disturbance to the Site and shall be subject to approval, inspection, and testing by the Contract Administrator.

E7.3.2 The Contractor shall keep all equipment in good working order and have sufficient standby equipment available at all times, as required.

E7.3.3 The Contractor shall be responsible for the supply, safe storage and handling of all materials as set forth in this Specification. All materials shall be handled in a careful and workmanlike manner, to the satisfaction of the Contract Administrator.

E7.4 Scope of Work

E7.4.1 The Work under this Specification shall include, but not be limited to:

- (a) Supplying, installing, maintaining, and removing secure temporary fencing and gates around the site;
- (b) Supplying, installing, maintaining, and removing traffic control;
- (c) Construction, maintaining, and removing Access Roadway;
- (d) Pedestrian Safety;
- (e) Supplying, setting up, and removing site office facilities;
- (f) Protecting and restoring existing infrastructure and utilities; and
- (g) Refuse and Recycling Collection.

E7.5 Secure Site Fencing and Gates

E7.5.1 The Contractor shall erect and maintain for the duration of the project a safety fence, to restrict access to the Site. The fencing shall enclose the entire Site with appropriate gates or openings that are closed at the end of each Work day. Appropriate signs shall be erected to warn all recreational users of the park and the river that an open water hazard exists. This shall include but not be limited to snowmobilers and skiers. Fence construction on the riverbank shall consist of Dupont Number L70 orange plastic safety fence or approved equal with a mesh spacing of 45 mm and a minimum height of 1.2 metres supported by wood posts driven into the ground. The wood posts shall be sized and capable of maintaining the snow fence material upright, regardless of conditions. Fence construction on the river ice shall be as shown on the Drawings. Upon completion of the work, all fence materials shall be removed and disposed off-site.

E7.6 Traffic Control

E7.6.1 The Contractor is responsible to supply, erect, maintain and remove applicable traffic control devices, provide flag persons and follow traffic control procedures in accordance with City of Winnipeg Standard Construction Specification CW 1130 section 3.7.

E7.6.2 The Contractor is responsible to make arrangements, at no cost to the City of Winnipeg or the Contract Administrator, with the City of Winnipeg Traffic Services Branch and the Winnipeg Parking Authority to implement parking restriction signing for regulated parking within and adjacent to the Site and to re-instate parking upon completion of the Work. This specification supersedes the City of Winnipeg Standard Construction Specification CW1130 Section 3.8 Parking Restrictions.

E7.7 Temporary Access Roadway

- E7.7.1 The Contractor shall construct and maintain a temporary roadway to provide access to the Work area.
- (a) The approximate location of access and egress is indicated on the Drawings.
 - (b) The access roadway shall be maintained on a regular basis to provide continual unrestricted site access, to the satisfaction of the Contract Administrator.
 - (c) The City of Winnipeg streets and alleys adjacent to all access roads and staging areas must be kept clean at all times.
 - (d) Upon completion of the Work, the area shall be restored to its original condition in accordance with E17.

E7.8 Pedestrian Safety

- E7.8.1 The necessary protection of pedestrian traffic shall be provided during construction, including flagmen (as necessary), barricades, fencing and signage.
- E7.8.2 During the project, a temporary snow fence shall be installed and maintained around any excavations, steep drop-offs or other conditions hazardous to pedestrians.
- E7.8.3 Appropriate warning signs shall be placed along the top of the access roadway during non-working hours to discourage public access to the Site.

E7.9 Site Office Facilities

- E7.9.1 The Contractor shall supply the following site facilities meeting the following requirements:
- E7.9.2 A portable toilet shall be located at the Site through duration of the Work.
- (a) The toilet shall have a locking door and be for the exclusive use of the Contractor, Contract Administrator and other personnel from the City of Winnipeg.
 - (b) The toilet shall be cleaned on a weekly basis immediately prior to each Site meeting. The Contract Administrator may request additional cleaning when deemed necessary. E5.2 The Contractor shall be responsible for all installation and removal costs, all operating costs, and the general maintenance of the office facilities.
 - (c) The toilet shall be provided from the date of mobilization to the Site to demobilization from the Site.

E7.10 Existing Infrastructure and Utilities

- E7.10.1 The Contractor shall be responsible for protection of existing infrastructure and any utilities at the Site including above ground and buried infrastructure.
- (a) The Contractor is responsible to obtain any required utility clearances prior to commencement of the Works. Any damaged infrastructure shall be repaired at the Contractor's expense.
 - (b) The Contractor shall be responsible to ensure existing asphalt and concrete pathways, sidewalks, benches, and curbs are protected from damage due to construction activities. Any damaged asphalt and concrete pathways, sidewalks, and curbs shall be repaired or replaced at the Contractors expense, as approved by the Contract Administrator.
 - (c) The Contractor shall protect and prevent damage to the existing storm sewer outfall present at the toe of the riverbank at indicated on the Drawing through the duration of construction.
 - (d) The Contractor shall be responsible for raising or relocating the existing overhead lines located on the south side of the building at the access/egress location as indicated on the Drawings to provide sufficient clearance for construction equipment. A permit for the relocation or raising of overhead lines shall be obtained. Upon completion of the Work and demobilization, the contractor shall re-establish the overhead lines to their current location.

- (e) Repair or replace all damaged pavement, sidewalk, curbs or other infrastructure, damaged as a result of the Work in accordance with applicable City of Winnipeg Standard Construction Specifications.

E7.11 Refuse and Recycling Collection

- E7.11.1 While access to refuse and/or recycling collection vehicles is restricted, on collection day(s) the Contractor shall move all of the affected property owners refuse and/or recycling materials to a nearby common area to permit the normal collection vehicles to collect the materials. Immediately following recycling collection, the Contractor shall return refuse and/or recycling receptacles to the addresses marked on the receptacles.

E7.12 Quality Control

- E7.12.1 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 specified Work.
- E7.12.2 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. The Contract Administrator reserves the right to reject any materials or Works, which are not in accordance with the requirements of this Specification.

E7.13 Measurement and Payment

E7.13.1 Mobilization and Demobilization

- (a) Mobilization and demobilization shall not be measured. This Item of Work shall be paid for at the Contract Lump Sum Price for "Mobilization and Demobilization", which price shall be payment in full for supplying all materials and performing all operations herein described and all other items incidental to the Work, included in this Specification and accepted by the Contract Administrator.

E8. SITE ACCESS AND DEVELOPMENT

E8.1 Description

- E8.1.1 This Specification shall cover all operations relating to developing and maintaining Site access and work to be undertaken in preparation of 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 other things necessary for and incidental to the satisfactory performance and completion of all Work hereinafter specified.

E8.2 Scope of Work

- E8.2.1 The Work under this Specification shall include, but not be limited to:
 - (a) Construction of temporary access ramp;
 - (b) Removal of existing trees;
 - (c) Clearing and grubbing; and
 - (d) Stockpiling;

E8.3 Temporary Access Ramp

E8.3.1 Description

- (a) This Specification shall cover all operations relating to constructing, maintaining, and removing a temporary access ramp, as specified herein.

E8.3.2 Construction Methods

- (a) Prior to commencing construction, the Contractor shall submit a Site Access and Construction Staging Plan to the Contract Administrator for approval, in accordance with D15.
- (b) The location of the access ramp shown on the Drawings is approximate and shall be reviewed by the Contractor and Contract Administrator prior to construction.
- (c) If the Contractor proposes an alternate access ramp or working platform to the pre-approved ramp detailed on the Drawings, a detailed construction access ramp and/or working platform Drawing must be submitted to the Contract Administrator for approval a minimum five (5) business days prior to any construction activity on Site.
- (d) The construction access ramp from the top bank area down to the Work area shall be constructed by cut and fill methods to the necessary ramp grade. Fills shall not be placed to construct or maintain the access ramp without prior acceptance by the Contract Administrator. If approved, the Contractor shall be responsible for supplying additional suitable fill from an off-Site source if required.
- (e) The Contractor shall remove a segment of the existing fence as required for access, as indicated on the Drawing, to facilitate construction of access ramp. Upon completion of the Work, the fence shall be restored to its original condition and location.
- (f) The access ramp shall be constructed in a manner that minimizes disturbance to the Site.

E8.4 Removal of Existing Trees

E8.4.1 Description

- (a) This Specification shall cover all operations relating to removing trees, as specified herein.
- (b) Existing Trees (4) are to be removed as indicated on the Drawings. Additional trees may need to be removed as directed by the Contract Administrator.

E8.4.2 Construction Methods

- (a) The Contractor shall only cut down trees approved for removal by the Contract Administrator. In general, the Contractor shall start at the top of the tree and remove branches or trunks in segments not longer than 2 m. Trees are to be felled so as to land within the Site limits.
- (b) The Contractor shall load and haul all trees, stumps, roots, logs, brush, rubbish and all other surface litter from the Site and dispose of these materials at an approved disposal Site, acceptable to the Contract Administrator.
- (c) Within areas where trees have been marked for removal, the roots shall be removed out to a minimum of 100 mm below final grade.
- (d) Trees shall be felled towards the centre of the area to be cleared. Any brush or trees falling outside of the area to be cleared shall be moved back to the right-of-way and disposed of.

E8.5 Clearing and Grubbing

E8.5.1 Description

- (a) This specification covers the clearing and grubbing within the area of the stabilization work and the access ramp.

E8.5.2 Construction Methods

- (a) All snow, stumps, roots, logs, shrubs, grass, weeds, fallen timber and other all other surface debris indicated by the Contract Administrator shall be removed prior to regrading, placement of geotextile, and placement of riprap.
- (b) All debris collected from clearing and grubbing shall be removed off site.
- (c) Burning of material from clearing and grubbing is not permitted.

- (d) Snow cover shall be cleared from the Work area and stockpiled at a location acceptable to the Contract Administrator. The methodology to clear the snow shall be subject to the approval of the Contract Administrator.

E8.6 Measurement and Payment

- E8.6.1 Site Access and Development shall not be measured. This Item of Work shall be paid for at the Contract Lump Sum Price for "Site Access and Development", which price shall be payment in full for supplying all materials and performing all operations herein described and all other items incidental to the Work, included in this Specification and accepted by the Contract Administrator.

E9. IN-WATER WORKS

- E9.1 No ice at the shoreline of the River shall be broken and no in-water works shall be completed as part of this Contract.
- E9.2 The river ice level shown on the drawings was measured on the date noted. The Contractor is advised that these levels can vary above and below the level indicated.

E10. PROTECTION OF EXISTING TREES

E10.1 Description

- E10.1.1 This Specification shall cover all operations relating to the protection of existing trees during at the Site during construction. Removal of some trees will be required during regrading at the Site as per E11. The Contractor shall take the following precautionary steps to avoid damage from construction activities to any existing trees not marked and accepted for removal.
- E10.1.2 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 hereinafter specified.
- ##### **E10.2 Construction Methods**
- E10.2.1 Methods and procedures that prevent damage or risk of damage to existing trees identified shall be employed during construction and approved by the Contractor Administrator. The Contractor will field verify and flag all trees to be protected.
- E10.2.2 Do not stockpile materials and soil or park vehicles and equipment within 2 metres of trees.
- E10.2.3 Above ground clearance for overhanging branches in the Work zone must be anticipated. No trees may be removed or pruned without written approval from the Contract Administrator. Tree pruning or root pruning of City owned trees may only be done by a Contractor approved by the project's certified arborist or Urban Forestry Branch.
- E10.2.4 Strap mature tree trunks with 25 x 150 x 2400 mm wood planks. Smaller trees shall be similarly protected using appropriately sized wood planks.
- E10.2.5 No objects may be attached to trees protected by a City by-law without written authorization by the City of Winnipeg.
- E10.2.6 American elm trees shall not be pruned between April 1st and August 1st and Siberian elm trees between April 1st and July 1st of any year under provisions of The Dutch Elm Disease Act.
- E10.2.7 All damage to existing trees due to construction activities shall be repaired to the requirements and satisfaction of the City of Winnipeg, Planning, Property and Development Department, Municipal Accommodations Division, Forestry Branch at the Contractor's expense.

E10.3 Measurement and Payment

E10.3.1 Protection of existing trees shall not be measured. This Item of Work shall be paid for at the Contract Lump Sum Price for "Site Access and Development", which price shall be payment in full for supplying all materials and performing all operations herein described and all other items incidental to the Work, included in this Specification and accepted by the Contract Administrator.

E11. REGRADING

E11.1 Description

E11.1.1 This specification covers the regrading of the ground surface within the Work area as indicated on the Drawings after clearing and grubbing is completed and prior to geotextile and riprap placement.

E11.1.2 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 hereinafter specified.

E11.2 Construction Methods

E11.2.1 The regrading shall remove humps, or near vertical changes in ground to a neat, smooth, consistent surface to the acceptance of Contract Administrator and will not require removal of material off-site.

E11.2.2 Removal of any trees and vegetation required to facilitate regrading shall be in accordance with E8.4.

E11.2.3 Fill material shall be placed and sufficiently compacted to the acceptance of the Contract Administrator.

E11.3 Method of Measurement and Payment

E11.3.1 Regrading will be measured on an area basis. The area to be paid for shall be the total number of square metres of regraded area in accordance with this Specification as computed from measurements made by the Contract Administrator. Payment shall be Unit Price per square metre for "Regrading".

E12. COMMON EXCAVATION

E12.1 Description

E12.1.1 This Specification covers the general excavation of soils in areas indicated on the Drawings or other excavated soils to be disposed of off-site as directed by the Contract Administrator. Excavation of the ground shall be undertaken after clearing and grubbing is completed and prior to geotextile and riprap placement, to the approval of the Contract Administrator.

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 things necessary for and incidental to the satisfactory performance and completion of all work as hereinafter specified.

E12.2 Construction Methods

E12.2.1 The excavation shall be executed to the lines and grades shown on the Drawings. Ground surfaces exposed from the excavation shall be graded to a smooth surface prior to geotextile placement.

E12.2.2 Excavated material shall be removed from the riverbank area immediately upon excavation and disposed of offsite.

E12.3 Method of Measurement and Basis of Payment

- E12.3.1 Common excavation soils hauled off-site shall be measured and paid for on a volume basis. The volume to be paid for shall be the total number of cubic metres removed from site in accordance with this Specification acceptable to the Contract Administrator, as computed from survey taken by the Contract Administrator using the method of Average End Areas. No additional payment will be made for fencing or signage. Payment shall be at the Contract Unit Price for "Common Excavation."

E13. EROSION AND SEDIMENT CONTROL

E13.1 Description

- E13.1.1 This Specification covers the supply, implementation and maintenance of erosion control measures during construction and not specifically covered in E20 to control the release of sediments into the river during and following construction.
- E13.1.2 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.

E13.2 Materials

- E13.2.1 The Contractor shall maintain a supply of erosion control products such as erosion control blankets, silt fencing, straw bales or mulch on Site at all times suitable for trapping and preventing sediments from entering the river during construction.

E13.3 Construction Methods

- E13.3.1 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.
- E13.3.2 Sediment control measure shall be implemented to meet the requirements of Fisheries and Oceans Canada.
- E13.3.3 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 measure as required in the event that there is runoff from the Site
- E13.3.4 Upon completion of the construction Work, all surplus or waste materials, and materials containing fine-grained sediments shall be removed from the Site.

E13.4 Measurement and Payment

- E13.4.1 Erosion and sediment control shall not be measured. This Item of Work shall be paid for at the Contract Lump Sum Price for "Site Access and Development", which price shall be payment in full for supplying all materials and performing all operations herein described and all other items incidental to the Work, included in this Specification and accepted by the Contract Administrator.

E14. GEOTEXTILE

E14.1 Description

- E14.1.1 This Specification covers the supply and installation the geotextile filter fabric.
- E14.1.2 Geotextile fabric placed along the limits or within structural backfill shall be "Separation Geotextile Fabric" supplied in accordance with CW 3130 and CW 3615.
- E14.1.3 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.

E14.2 Materials

E14.2.1 The geotextile shall be a non-woven geotextile fabric, meeting of exceeding the following properties:

Physical Property	ASTM Test Method	Units	Average Roll Values
Grad Tensile Strength	D-4632	N	900 (minimum)
CBR Puncture	D-6241	N	2200 (minimum)
Trapezoidal Tear	D-1533	N	350 (minimum)
UV Resistance	D-4355	% per 500 hrs	70 (minimum)
Apparent Opening Size	D-4751	mm	0.18 (maximum)
Permittivity	D-4491	Sec ⁻¹	1.4 (minimum)
Flow Rate	D-4491	L/min/m ²	4000 (minimum)

E14.3 Construction Methods

E14.3.1 Installation, handling and storage of geotextile fabric shall conform to the manufacturer's recommendations and specifications.

E14.3.2 Geotextile fabric shall be installed on all ground surfaces beneath the riprap.

E14.3.3 Ground surfaces shall be cleared of all deleterious material such as snow, roots, tree trunks, rubble, etc. to expose the native riverbank soil and shall be graded to a smooth surface prior to placement of riprap.

E14.3.4 Geotextile shall be placed from ice level up to the design grades as indicated on the Drawings.

E14.3.5 A minimum of 2 m of geotextile shall extend beyond the bottom grade of the riprap to facilitate future riprap placement. The geotextile should be protected from environmental exposure and damage.

E14.3.6 The geotextile shall be placed in accordance with CW 3615-R4, Clause 9.2 with following exceptions:

- (a) More than one piece of fabric may be used to cover the ground surface between the up-slope and down-slope edges of the riprap.
- (b) The joints shall be overlapped in a shingle pattern, with the up-slope pieces overlapping the down-slope pieces and the up-stream pieces overlapping the downstream pieces.
- (c) Tears or other damage in the geotextile fabric shall be repaired with a piece of geotextile fabric placed over the damaged area and extending 1.0 m in all directions beyond the damaged area.

E14.4 Measurement and Payment

E14.4.1 Geotextile fabric will be measured on an area basis and measured as the area covered by geotextile fabric. The area to be paid for shall be the total number of square metres of geotextile fabric supplied and installed in accordance with this Specification as computed from measurements made by the Contract Administrator. Payment shall be Unit Price per square metre for "Supply and Install Geotextile".

E15. STOCKPILING OF MATERIALS

E15.1 Description

- E15.1.1 This specification covers the procedures for establishing and maintaining stockpiles of rockfill riprap, and other materials handled on Site.
- E15.1.2 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.
- E15.2 Construction Methods
- E15.2.1 Temporary stockpiling of riprap shall be permitted only at locations approved by the Contract Administrator and shall not be permitted near or along the riverbank, streets, or on private properties.
- E15.2.2 Material shall be placed to the required lines and grade shown the Drawings immediately within the riverbank area.
- E15.2.3 Surplus excavated materials shall be immediately removed from the Site. Stockpiling of excavated materials in locations and/or quantities that could jeopardize riverbank stability shall not be permitted.
- E15.2.4 The rate at which materials are delivered to the Site shall be controlled to minimize stockpiling and handling.
- E15.2.5 The Contractor shall review stock pile locations with the Contract Administrator prior to establishing stockpiles of material.
- E15.2.6 Stockpiled material shall be handled and maintained in a manner that prevents contamination with other soils and materials, debris, snow, or excess moisture. Contaminated material shall be removed and replaced at the Contractor expense.
- E15.3 Measurement and Payment
- E15.3.1 Stockpiling shall not be measured. This Item of Work shall be paid for at the Contract Lump Sum Price for "Site Access and Development", which price shall be payment in full for supplying all materials and performing all operations herein described and all other items incidental to the Work, included in this Specification and accepted by the Contract Administrator.

E16. RIPRAP

- E16.1 Description
- E16.1.1 This Specification shall cover all operations necessary for and pertaining to the supply and placement of approved riprap at the locations indicated on the Drawings or as designated by the Contract Administrator in the field.
- E16.1.2 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 hereinafter specified.
- E16.1.3 This Specification shall amend and supplement Specification No. CW 3615.
- E16.2 Materials
- E16.2.1 The rockfill material used for the riprap shall consist of a clean free draining, sound, dense, durable, crushed rock. The material shall be free from organics, roots, silts, sand, clay, snow, ice or any other material that would detract from the strength and drainage characteristics of clean rockfill.
- E16.2.2 Riprap material shall meet the following requirements:

Parameter	Test Method	Specified Limit
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Bulk Specific Gravity	ASTM C127	2.6 minimum
Absorption	ASTM C127	2.5% maximum
LA Abrasion Loss	ASTM C131	32% maximum
Soundness	ASTM C88	13% maximum
Gradation	ASTM D5519	See below

E16.2.3 Riprap shall be well graded having a full range and even distribution of sizes and shall conform to the following gradation:

Canadian Metric Sieve Size (millimetres)	Percent of Total Dry Weight Passing Each Sieve
Bulk Specific Gravity	ASTM C127
Absorption	ASTM C127
LA Abrasion Loss	ASTM C131
Soundness	ASTM C88
Gradation	ASTM D5519

E16.2.4 Individual particles shall be shaped such that no dimension is greater than two times the smallest dimension. Flat, elongated, or platy particle shapes will not be accepted.

E16.2.5 Should the Contractor choose to use limestone, it shall be durable white crystalline limestone or dolomite. Softer buff to yellow dolomite or dolostone will not be accepted.

E16.2.6 The diameter shall be taken as the average of the shortest and longest dimension measured on an individual piece of riprap.

E16.2.7 Riprap shall be free from sod, roots, organic material and debris prior to placement. Individual pieces of riprap shall be free of defects such as seams or cracks that would cause rapid or excessive deterioration or degradation.

E16.2.8 Contractors supplying riprap shall be responsible for demonstrating that the material is adequate quality, gradation, and volume to meet the material specifications contained herein.

E16.2.9 All materials set forth in this Specification shall be subject to inspection and testing by the Contract Administrator or by the testing laboratory designated by the Contract Administrator.

E16.2.10 The Contract Administrator may visit proposed quarry Sites for inspection of the proposed riprap material and quarry faces prior to supply and placement of riprap.

E16.2.11 No supply and placement of riprap will be permitted prior to the Contract Administrator approving the source.

E16.2.12 The testing frequency necessary to confirm the material quality will be specified at the discretion of the Contract Administrator.

E16.3 Submittals

E16.3.1 The Contractor shall submit the proposed supplier(s) and location of quarry Sites for supply of riprap at least ten (10) business days prior to the supply of riprap to the Site, to confirm that sufficient quantity of specified rock is available.

E16.3.2 The Contractor shall supply representative samples of the riprap to the Contract Administrator for approval a minimum of Seven (10) days prior to their use. The riprap sample to demonstrate that the material to be supplied is of adequate quality and gradation to satisfy the material specifications contained herein.

E16.3.3 Contractors supplying riprap shall be responsible for demonstrating that the material is of adequate quality and volume to meet the material specifications contained herein.

E16.4 Construction Methods

- E16.4.1 Riprap shall be placed to the lines and grades shown on the drawings.
- E16.4.2 Riprap shall take all measures necessary to avoid damage to the existing outfall, shown on the Drawings, during rockfill riprap placement.
- E16.4.3 Riprap shall be placed, pushed or rolled into place in such a manner that the larger rocks are uniformly distributed and the smaller rocks serve to fill the places between the larger rocks such that excessive segregation of the various particle sizes does not occur.
- E16.4.4 Sufficient levelling shall be done to produce a neat and uniform surface, conforming to the shape and dimensions shown on the Drawings and accepted by the Contract Administrator.
- E16.4.5 The allowable fill tolerances shall be within ± 50 mm of the grades and thickness shown on the Drawings, provided positive downslope grading is achieved.
- E16.4.6 The winter river level shown on the drawings is based on typical conditions. The Contractor is advised that river levels at the time of construction may vary from the level indicated.
- E16.5 Measurement and Payment
- E16.5.1 The supply and placement of rockfill riprap shall be measured on a weight basis and paid for at the Contract Unit Price for "Rockfill Riprap". The weight to be paid for shall be the total number of metric tonnes of rockfill supplied and placed in accordance with this Specification, as measured by a certified weigh scale and accepted by the Contract Administrator.
- E16.5.2 The Contractor shall provide the weight tickets to the Contract Administrator for the material supplied to the Site at the time of delivery. No payment will be made for any weight tickets which are not supplied at the time of delivery, or which are lost.

E17. SITE RESTORATION

- E17.1 Description:
- E17.1.1 This Specification shall cover site restoration works including installation of erosion control blanket (ECB) and re-establishing vegetation in disturbed areas (topsoil and seeding).
- E17.1.2 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.
- E17.1.3 Erosion Control Blanket (ECB)
- (a) Description
- (i) This Specification shall cover supply and installation of ECBs within regraded areas including the Work area and access ramp.
- (ii) 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.
- E17.1.4 Materials
- (a) ECB shall be machine produced 100% coconut fibre matrix with a functional longevity of up to 12 to 36 months.
- (b) The ECB shall be of consistent thickness with the coconut fibres evenly distributed over the entire area at a minimum of $0.27 \pm$ kg of coconut fibre/m².
- (c) Biodegradable reinforcement netting on both sides manufactured from heavy weight cotton or jute fibre thread. (1.47 kg/100m of thread). The mesh dimension shall be a 16 x 16 mm sewn together on 38 mm centres.

- (d) Approved products are:
 - (i) Erosion Control Blanket C32BD;
 - (ii) North American Green C125BN
- (e) The Contractor shall submit all manufacturers' product specifications and recommended installation methods for the proposed ECB.

E17.1.5 Construction Methods

- (a) ECB shall be installed over exposed, un-vegetated areas of the regraded riverbank following completion of the stabilization works. The ECB shall be installed prior to rising river levels in the spring.
- (b) The Contractor shall follow the manufacturer's recommended installation procedure, as well as the following requirements.
 - (i) Roll blanket out in direction of water flow (parallel to shoreline).
 - (ii) Securely fasten blanket against soil surface with a staggered staple pattern as per the manufacturer's recommendations and as accepted by the Contract Administrator.
 - (iii) At blanket edges overlap upstream blanket over downstream blanket by a minimum of 150 mm and secure overlaps.
 - (iv) The upstream edge of the blanket shall be secured in a 150 mm deep by 150 mm wide trench and anchored with staples at a maximum of 300 cm spacing. The trench shall be backfilled with compacted clay.

E17.1.6 Maintenance

- (a) The areas covered with ECB shall be regularly inspected, and in particular after severe rainfall, or flooding events to check for blanket separation or breakage until the end of the warranty period or until vegetation growth has been established.
- (b) Any damage or poorly performing areas shall be replaced/repared immediately. Regrading of the slope by manual labour methods may be required in the event of rill or gully erosion.

E17.2 Restoration of Disturbed Areas

E17.2.1 Seeding and Topsoil

- (a) Description
 - (i) The Contractor shall restore all areas disturbed due construction activities to original condition or better, as approved by the Contract Administrator, using topsoil and seed within landscaped grassed areas (fenced area). Topsoil is to be placed in disturbed areas within the riverbank, on top of the erosion control blanket, and all other natural areas.
 - (ii) All topsoil and seeding Work shall be performed in accordance with City of Winnipeg Standard Construction Specifications CW 3520 and CW3540.

E17.2.1 Construction Methods

- (a) The Contractor shall not commence seeding or topsoil placement operations prior to May 15th, 2018.
- (b) Topsoil shall be placed 75 mm thick in all disturbed areas and on top of the erosion control blanket and prior to seeding in landscaped grassed areas.
- (c) The seed and topsoil shall be placed evenly.
- (d) Seed and topsoil shall not be placed in a frozen state, or when any other conditions unfavourable to the successful growth of vegetation exists.

E17.2.2 Measurement and Payment

- (a) Erosion Control Blanket shall be measured on an area basis and paid for at the Contract Unit Price per square meter for "Supply and Install Erosion Control Blanket",

which price shall be payment in full for supplying all materials and for completing all operations herein described and all other items incidental to the Work included in this Specification, as accepted and measured by the Contract Administrator.

- (b) Seeding and topsoil shall not be measured. This Item of Work shall be paid for at the Contract Lump Sum Price for "Site Access and Development", which price shall be payment in full for supplying all materials and performing all operations herein described and all other items incidental to the Work, included in this Specification and accepted by the Contract Administrator.

E18. CHANNEL PROTECTION

- E18.1 The ice surface and riverbank channel shall be cleared of construction materials prior to ice break-up. The Contractor shall clean up all materials, including but not limited to: soil, snow fence, construction debris, etc. from this construction activity. All items that will have an adverse impact on the channel shall be removed. Channel Protection shall be considered incidental to the Works of this Contract and no measurement or payment will be made for this item.

PART F - SECURITY CLEARANCE

F1. SECURITY CLEARANCE

- F1.1 Each individual proposed to perform Work under the Contract shall be required to obtain a Police Information Check from the police service having jurisdiction at his place of residence. This can be obtained from one of the following;
- (a) police service having jurisdiction at his/her place of residence; or
 - (b) BackCheck, forms to be completed can be found on the website at: <http://www.backcheck.net/> ; or
 - (c) Commissionaires (Manitoba Division), forms to be completed can be found on the website at: <https://www.commissionaires.ca/en/manitoba/home>.
- F1.2 The following is a link to information for obtaining the Police Information Check including the Vulnerable Sector screening from the City of Winnipeg Police Service.
<http://winnipeg.ca/police/pr/PIC.stm>
- F1.2.1 The Police Information Check shall include a Vulnerable Sector Screening. This can be obtained by following the link below <http://winnipeg.ca/police/pr/PIC.stm> .
- (a) Individuals will need to state in the form, that they may be working in City of Winnipeg pools, libraries and community centres;
- F1.3 The original Police Information Check (Form P-612) will be provided by the Winnipeg Police Service to the individual applicant. The original has a validation sticker from the Winnipeg Police Service in the top right hand corner. The applicant shall:
- (a) Provide the original Police Information Check (Form P-612) to the Contract Administrator.
- F1.4 Prior to the award of Contract, 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 Police Information 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 Police Information Check is not provided, or for whom a Police Information 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 Police Information Check obtained thereby will be deemed valid for the duration of the Contract subject to a repeated records search as hereinafter specified.
- F1.7 Notwithstanding the foregoing, at any time during the term of the Contract, the City of Winnipeg may, at its sole discretion and acting reasonably, require an updated Police Information Check. Any individual who fails to provide a satisfactory Police Information Check as a result of a repeated Police Information Check will not be permitted to continue to perform any Work.

