



THE CITY OF WINNIPEG

BID OPPORTUNITY

BID OPPORTUNITY NO. 941-2015

ROYALWOOD MISCELLANEOUS SITE IMPROVEMENTS

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 ROYALWOOD MISCELLANEOUS SITE IMPROVEMENTS

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 4:00 p.m. Winnipeg time, November 10, 2015.

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

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

B3. ENQUIRIES

B3.1 All enquiries shall be directed to the Contract Administrator identified in D3.1.

B3.2 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.

B3.3 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.

B3.4 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.

B3.5 The Bidder shall not be entitled to rely on any response or interpretation received pursuant to B3 unless that response or interpretation is provided by the Contract Administrator in writing.

B4. CONFIDENTIALITY

B4.1 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.

B4.2 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.

B5. ADDENDA

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

- B5.2 The Contract Administrator will issue each addendum at least two (2) Business Days prior to the Submission Deadline, or provide at least two (2) Business Days by extending the Submission Deadline.
- B5.2.1 Addenda will be available on the Bid Opportunities page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>
- B5.2.2 The Bidder is responsible for ensuring that he/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.
- B5.2.3 The Bidder shall acknowledge receipt of each addendum in Paragraph 8 of Form A: Bid. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.

B6. SUBSTITUTES

- B6.1 The Work is based on the Plant, Materials and methods specified in the Bid Opportunity.
- B6.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.
- B6.3 Requests for approval of a substitute will not be considered unless received in writing by the Contract Administrator at least five (5) Business Days prior to the Submission Deadline.
- B6.4 The Bidder shall ensure that any and all requests for approval of a substitute:
- (a) provide sufficient information and details to enable the Contract Administrator to determine the acceptability of the Plant, Material or method as either an approved equal or alternative;
 - (b) identify any and all changes required in the applicable Work, and all changes to any other Work, which would become necessary to accommodate the substitute;
 - (c) identify any anticipated cost or time savings that may be associated with the substitute;
 - (d) certify that, in the case of a request for approval as an approved equal, the substitute will fully perform the functions called for by the general design, be of equal or superior substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance;
 - (e) certify that, in the case of a request for approval as an approved alternative, the substitute will adequately perform the functions called for by the general design, be similar in substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance.
- B6.5 The Contract Administrator, after assessing the request for approval of a substitute, may in his/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.
- B6.6 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.
- B6.6.1 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.
- B6.7 If the Contract Administrator approves a substitute as an “approved equal”, any Bidder may use the approved equal in place of the specified item.

- B6.8 If the Contract Administrator approves a substitute as an “approved alternative”, any Bidder bidding that approved alternative may base his/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 B15.
- B6.9 No later claim by the Contractor for an addition to the Total Bid Price because of any other changes in the Work necessitated by the use of an approved equal or an approved alternative will be considered.

B7. BID COMPONENTS

- B7.1 The Bid shall consist of the following components:
- (a) Form A: Bid;
 - (b) Form B: Prices;
- B7.2 Further to B7.1, the Bidder should include the written correspondence from the Contract Administrator approving a substitute in accordance with B6.
- B7.3 All components of the Bid shall be fully completed or provided, and submitted by the Bidder no later than the Submission Deadline, with all required entries made clearly and completely, to constitute a responsive Bid.
- B7.4 The Bid Submission may be submitted by mail, courier or personal delivery, or by facsimile transmission.
- B7.5 If the Bid Submission is submitted by mail, courier or personal delivery, it shall be enclosed and sealed in an envelope clearly marked with the Bid Opportunity number and the Bidder's name and address, and shall be submitted to:
- The City of Winnipeg
Corporate Finance Department
Materials Management Division
185 King Street, Main Floor
Winnipeg, MB R3B 1J1
- B7.5.1 Samples or other components of the Bid Submission which cannot reasonably be enclosed in the envelope may be packaged separately, but shall be clearly marked with the Bid Opportunity number, the Bidder's name and address, and an indication that the contents are part of the Bidder's Bid Submission.
- B7.6 Bidders are advised not to include any information/literature except as requested in accordance with B7.1.
- B7.7 Bidders are advised that inclusion of terms and conditions inconsistent with the Bid Opportunity document, including the General Conditions, will be evaluated in accordance with B15.1(a).
- B7.8 If the Bid Submission is submitted by facsimile transmission, it shall be submitted to 204 949-1178.
- B7.8.1 The Bidder is advised that the City cannot take responsibility for the availability of the facsimile machine at any time.
- B7.8.2 Bids submitted by internet electronic mail (e-mail) will not be accepted.

B8. BID

- B8.1 The Bidder shall complete Form A: Bid, making all required entries.
- B8.2 Paragraph 2 of Form A: Bid shall be completed in accordance with the following requirements:

- (a) if the Bidder is a sole proprietor carrying on business in his/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.

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

B8.3 In Paragraph 3 of Form A: Bid, the Bidder shall identify a contact person who is authorized to represent the Bidder for purposes of the Bid.

B8.4 Paragraph 10 of Form A: Bid shall be signed in accordance with the following requirements:

- (a) if the Bidder is a sole proprietor carrying on business in his/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.

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

B8.4.2 All signatures shall be original.

B8.5 If a Bid is submitted jointly by two or more persons, the word "Bidder" shall mean each and all such persons, and the undertakings, covenants and obligations of such joint Bidders in the Bid and the Contract, when awarded, shall be both joint and several.

B9. PRICES

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

B9.2 The quantities listed on Form B: Prices are to be considered approximate only. The City will use said quantities for the purpose of comparing Bids.

B9.3 The quantities for which payment will be made to the Contractor are to be determined by the Work actually performed and completed by the Contractor, to be measured as specified in the applicable Specifications.

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

B10. DISCLOSURE

B10.1 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.

B10.2 The Persons are:

- (a) NA

B11. QUALIFICATION

B11.1 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.

B11.2 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>

B11.3 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);

B11.4 Further to B11.3(c), the Bidder shall, within five (5) Business Days of a request by the Contract Administrator, provide proof satisfactory to the Contract Administrator that the Bidder/Subcontractors has a workplace safety and health program meeting the requirements of The Workplace Safety and Health Act (Manitoba), by providing:

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

B11.5 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.

B11.6 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.

B12. OPENING OF BIDS AND RELEASE OF INFORMATION

B12.1 Bids will not be opened publicly.

B12.2 Following the submission deadline, the names of the Bidders and their Total Bid Prices (unevaluated, and pending review and verification of conformance with requirements) will be

available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/bidopp.asp>

B12.3 After award of Contract, the name(s) of the successful Bidder(s) and the Contract amount(s) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>

B12.4 The Bidder is advised that any information contained in any Bid may be released if required by City policy or procedures, by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law.

B13. IRREVOCABLE BID

B13.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 9 of Form A: Bid.

B13.2 The acceptance by the City of any Bid shall not release the Bids of the next two lowest evaluated responsive Bidders and these Bidders shall be bound by their Bids on such Work for the time period specified in Paragraph 9 of Form A: Bid.

B14. WITHDRAWAL OF BIDS

B14.1 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.

B14.1.1 Notwithstanding C23.3, the time and date of receipt of any notice withdrawing a Bid shall be the time and date of receipt as determined by the Manager of Materials.

B14.1.2 The City will assume that any one of the contact persons named in Paragraph 3 of Form A: Bid or the Bidder's authorized representatives named in Paragraph 10 of Form A: Bid, and only such person, has authority to give notice of withdrawal.

B14.1.3 If a Bidder gives notice of withdrawal prior to the Submission Deadline, the Manager of Materials will:

- (a) retain the Bid until after the Submission Deadline has elapsed;
- (b) open the Bid to identify the contact person named in Paragraph 3 of Form A: Bid and the Bidder's authorized representatives named in Paragraph 10 of Form A: Bid; and
- (c) if the notice has been given by any one of the persons specified in B14.1.3(b), declare the Bid withdrawn.

B14.2 A Bidder who withdraws his/her Bid after the Submission Deadline but before his/her Bid has been released or has lapsed as provided for in B13.2 shall be liable for such damages as are imposed upon the Bidder by law and subject to such sanctions as the Chief Administrative Officer considers appropriate in the circumstances. The City, in such event, shall be entitled to all rights and remedies available to it at law.

B15. EVALUATION OF BIDS

B15.1 Award of the Contract shall be based on the following bid evaluation criteria:

- (a) compliance by the Bidder with the requirements of the Bid Opportunity or acceptable deviation there from (pass/fail);
- (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B11 (pass/fail);
- (c) Total Bid Price;
- (d) economic analysis of any approved alternative pursuant to B6.

- B15.2 Further to B15.1(a), the Award Authority may reject a Bid as being non-responsive if the Bid is incomplete, obscure or conditional, or contains additions, deletions, alterations or other irregularities. The Award Authority may reject all or any part of any Bid, or waive technical requirements or minor informalities or irregularities, if the interests of the City so require.
- B15.3 Further to B15.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in his/her Bid or in other information required to be submitted, that he/she is responsible and qualified.
- B15.4 Further to B15.1(c), the Total Bid Price shall be the sum of the quantities multiplied by the unit prices for each item shown on Form B: Prices.
- B15.4.1 Further to B15.1(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.

B16. AWARD OF CONTRACT

- B16.1 The City will give notice of the award of the Contract or will give notice that no award will be made.
- B16.2 The City will have no obligation to award a Contract to a Bidder, even though one or all of the Bidders are determined to be responsible and qualified, and the Bids are determined to be responsive.
- B16.2.1 Without limiting the generality of B16.2, the City will have no obligation to award a Contract where:
- (a) the prices exceed the available City funds for the Work;
 - (b) the prices are materially in excess of the prices received for similar work in the past;
 - (c) the prices are materially in excess of the City's cost to perform the Work, or a significant portion thereof, with its own forces;
 - (d) only one Bid is received; or
 - (e) in the judgment of the Award Authority, the interests of the City would best be served by not awarding a Contract.
- B16.3 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 B15.
- B16.3.1 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.
- B16.4 Notwithstanding C4, the City may issue a Purchase Order to the successful Bidder in lieu of the execution of a Contract.
- B16.5 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 playground enhancement at Fountainview Park, pathway improvements in Bois des Esprits including regrading, fencing and retaining wall, and erosion protection on the Seine river.

D3. CONTRACT ADMINISTRATOR

D3.1 The Contract Administrator is Dean Spearman Landscape Architect, represented by:
Dean Spearman

Telephone No. 204 261-4137

Email dean@spearman.mb.ca

D3.2 At the pre-construction meeting, Dean Spearman 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 B7.5.

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 and shall not be appropriated for the Contractors 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 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, except as expressly otherwise required in D6.3, D6.4 or elsewhere in the Contract, shall be sent to the attention of the Contract Administrator at the 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 facsimile number:

The City of Winnipeg
Chief Financial Officer

Facsimile No.: 204 949-1174

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

The City of Winnipeg
Legal Services Department
Attn: Director of Legal Services

Facsimile No.: 204 947-9155

D6.5 Bids Submissions must be submitted to the address in B7.5.

SUBMISSIONS

D7. AUTHORITY TO CARRY ON BUSINESS

D7.1 The Contractor shall be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba, or if the Contractor does not carry on business in Manitoba, in the jurisdiction where the Contractor does carry on business, throughout the term of the Contract, and shall provide the Contract Administrator with evidence thereof upon request.

D8. SAFE WORK PLAN

D8.1 The Contractor shall provide the Contract Administrator with a Safe Work Plan at least five (5) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.

D8.2 The Safe Work Plan should be prepared and submitted in the format shown in the City's template which is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/Safety/default.stm>

D9. INSURANCE

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

- (a) commercial general liability insurance, in the amount of at least two million dollars (\$2,000,000.00) inclusive, with The City of Winnipeg and Dean Spearman Landscape Architect 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) if applicable, Automobile Liability Insurance covering all motor vehicles, owned and operated and used or to be used by the Contractor directly or indirectly in the performance of the Work. The Limit of Liability shall not be less than \$2,000,000 inclusive for loss or damage including personal injuries and death resulting from any one accident or occurrence;
- (c) all risks installation floater, carrying adequate limits to cover all machinery, equipment, supplies and/or materials intended to enter into and form part of any installation.

D9.2 Deductibles shall be borne by the Contractor.

D9.3 The Contractor shall provide the Contract Administrator with a certificate(s) of insurance, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Work but in no event later than seven (7) Calendar Days from notification of the award of Contract by Purchase Order.

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

D10. PERFORMANCE SECURITY

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

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

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

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

D11. SUBCONTRACTOR LIST

D11.1 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.

D12. DETAILED WORK SCHEDULE

D12.1 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.

D12.2 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.

D12.3 Further to D12.2(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:

- (a) Fountainview Park
 - (i) Site safety fencing, demolition & excavation
 - (ii) Subsurface drainage
 - (iii) Installation of play equipment
 - (iv) Installation of safety surfacing
 - (v) Installation of play curb
 - (vi) Site restoration
- (b) Bois des Esprits
 - (i) Rip Rap
 - (ii) Excavation and demolition
 - (iii) Retaining wall
 - (iv) Fence
 - (v) Crusher Fines Paving
- (c) Substantial Performance
- (d) Total Performance

D12.4 Further to D12.2(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.

D12.5 Further to D12.2(c), the daily manpower schedule shall list the daily number of individuals on the Site for each trade.

SCHEDULE OF WORK

D13. COMMENCEMENT

D13.1 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.

D13.2 The Contractor shall not commence any Work on the Site until:

- (a) the Contract Administrator has confirmed receipt and approval of:
 - (i) evidence of authority to carry on business specified in D7;
 - (ii) evidence of the workers compensation coverage specified in C6.15;
 - (iii) the Safe Work Plan specified in D8;
 - (iv) evidence of the insurance specified in D9;
 - (v) the performance security specified in D10;
 - (vi) the Subcontractor list specified in D11; and
 - (vii) the detailed work schedule specified in D12.
- (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.

D13.3 The Contractor shall commence the Work on the Site within seven (7) Working Days of receipt of the Purchase Order.

D14. CRITICAL STAGES

D14.1 The Contractor shall achieve critical stages of the Work in accordance with the following requirements:

- | | |
|---|------------------------------------|
| (a) Erosion Protection | Achieved prior to February 2, 2016 |
| (b) Playground Enhancements | Achieved prior to May 15, 2016 |
| (c) Pathway Construction and Retaining Wall | Achieved prior to May 28, 2016 |

D15. SUBSTANTIAL PERFORMANCE

D15.1 The Contractor shall achieve Substantial Performance by May 28, 2016.

D15.2 When the Contractor considers the Work to be substantially performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Substantial Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be reinspected.

D15.3 The date on which the Work has been certified by the Contract Administrator as being substantially performed to the requirements of the Contract through the issue of a certificate of Substantial Performance is the date on which Substantial Performance has been achieved.

D16. TOTAL PERFORMANCE

D16.1 The Contractor shall achieve Total Performance by June 10, 2016.

D16.2 When the Contractor or the Contract Administrator considers the Work to be totally performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Total Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be reinspected.

D16.3 The date on which the Work has been certified by the Contract Administrator as being totally performed to the requirements of the Contract through the issue of a certificate of Total Performance is the date on which Total Performance has been achieved.

D17. LIQUIDATED DAMAGES

D17.1 If the Contractor fails to achieve Substantial Performance in accordance with the Contract by the day fixed herein for Substantial Performance, the Contractor shall pay the City five hundred dollars (\$500) per Working Day for each and every Working Day following the day fixed herein for Substantial Performance during which such failure continues.

D17.2 The amount specified for liquidated damages in D17.1 is based on a genuine pre-estimate of the City's damages in the event that the Contractor does not achieve Substantial Performance by the day fixed herein for same.

D17.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

CONTROL OF WORK

D18. JOB MEETINGS

- D18.1 Regular weekly job meetings will be held at the Site. These meetings shall be attended by a minimum of one representative of the Contract Administrator, one representative of the City and one representative of the Contractor. Each representative shall be a responsible person capable of expressing the position of the Contract Administrator, the City and the Contractor respectively on any matter discussed at the meeting including the Work schedule and the need to make any revisions to the Work schedule. The progress of the Work will be reviewed at each of these meetings.
- D18.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he/she deems it necessary.

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

- D19.1 Further to C6.24, the Contractor shall be the Prime Contractor and shall serve as, and have the duties of the Prime Contractor in accordance with The Workplace Safety and Health Act (Manitoba).

D20. THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA) – QUALIFICATIONS

- D20.1 Further to B11.4, the Contractor/Subcontractor must, throughout the term of the Contract, have a Workplace Safety and Health Program meeting the requirements of The Workplace Safety and Health Act (Manitoba). At any time during the term of the Contract, the City may, at its sole discretion and acting reasonably, require updated proof of compliance, as set out in B11.4.

MEASUREMENT AND PAYMENT

D21. INVOICES

- D21.1 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
- D21.2 Invoices must clearly indicate, as a minimum:
- (a) the City'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.
- D21.3 The City will bear no responsibility for delays in approval of invoices which are improperly submitted.
- D21.4 Bids Submissions must be submitted to the address in B7.5.

D22. PAYMENT

D22.1 Further to C12, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

WARRANTY

D23. WARRANTY

D23.1 Warranty is as stated in C13.

FORM H1: PERFORMANCE BOND
(See D10)

KNOW ALL MEN BY THESE PRESENTS THAT

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

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

_____ dollars (\$_____)

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

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

BID OPPORTUNITY NO. 941-2015

ROYALWOOD MISCELLANEOUS SITE IMPROVEMENTS

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

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

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

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

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

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

_____ day of _____, 20____ .

SIGNED AND SEALED
in the presence of:

(Witness as to Principal if no seal)

(Name of Principal)

Per: _____ (Seal)

Per: _____

(Name of Surety)

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

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

(Date)

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

RE: PERFORMANCE SECURITY - BID OPPORTUNITY NO. 941-2015
ROYALWOOD MISCELLANEOUS SITE IMPROVEMENTS

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), Specifications included in the Bid Opportunity shall govern over *The City of Winnipeg Standard Construction Specifications*.
- E1.3 The City of Winnipeg Accessibility Design Standards.
- E1.4 The following are applicable to the Work:

| <u>Drawing No.</u> | <u>Drawing Name/Title</u> |
|--------------------|--|
| L-1 | Project Overview |
| L-2 | Fountainview Park Playground Enhancement |
| L-3 | John Bruce South Pathway Connection |
| L-4 | Crossing Enhancement |
| L-5 | John Bruce Details |
| G1 | Contour Plan and Photograph Location |
| G2 | Cross Section Overlay and Slope Analysis |
| G3 | Proposed Plan and Front Section |
| G4 | Photographs 1 to 6 |
| SCD-645R | Crusher Fines Path |
| SCD-612 | Culvert Installation Under Walkway |
| SCD-561A | Play Curb |
| SCD-650 | Wood Fibre Safety Surface Drainage Diagram |
| SCD-659 | Multi-flo pipe |

E2. HAZARDOUS MATERIALS

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

E3. SITE VERIFICATION

- E3.1 Further to C3.1,
- Prior to commencing actual construction work, check field conditions, obtain and confirm actual site dimensions, examine surface conditions, etc. as required to ensure correct fabrication and execution of the work.
 - Examine previously constructed work. Notify Contract Administrator in writing of any conditions which may prejudice proper completion of this work. Commencement of construction constitutes acceptance of existing conditions, and means dimensions have been considered, verified and are acceptable.
 - Contractor shall pay all costs for his/her on site review and examination.

- E3.2 The City will not be conducting further test holes. The Contractor is responsible to make their own interpretation of the soils within the construction area.
- (a) Pay all costs for onsite review and examination.

E4. EXISTING SERVICES AND UTILITIES

- E4.1 Although the Plans may show the location of existing surface and underground works and services, the City and the Contract Administrator does not assume responsibility for discrepancies between the Plans and the actual locations of the works and services or the completeness of the drawings. The Contractor shall make all requests directly to each utility for the location of their existing works prior to the start of construction in the area
- E4.2 Prior to the commencement of construction, the Contractor shall inspect the site and examine all available records and contact all relevant utilities as necessary to determine the location of all existing surface and underground works. Locations of underground structures if shown are based on the best information available. No guarantee is given that all existing locations are exact.
- E4.3 The Contractor shall be responsible for and take all necessary precautions to preserve and protect all public utilities (i.e. telephone lines and cables, hydro lines and cables, gas lines, sewer mains and services, water mains and services, etc.) existing drains and surface drains or parts thereof which may be affected by his/her operations.
- E4.4 The Contractor shall make all requests directly to each utility for the location of their existing works prior to the start of construction in the area.
- E4.5 The Contractor shall indemnify and save harmless the City and the Contract Administrator or his/her Sub-Consultants against damages for consequential loss and against any claim made against the City or the Contract Administrator of any such main, line, conduit or other such structure or utility for any loss or damage in respect of third party claims or which may be suffered by any such City because of damage to any such main, line, conduit, or other such structure or utility, in any way caused by the operations of the Contractor in the performance of this Contract.

E5. ACCESS TO SITE

- E5.1 The Contractor shall co-operate with the City so as to cause the least inconvenience throughout the area at all times.
- E5.2 Confine apparatus, the storage of products and the operations of workers to limits indicated by laws, ordinances, permits and by directions of the Contract Administration.
- E5.3 Do not unreasonably encumber site with materials or equipment.
- E5.4 Do not load or permit to be loaded any part of the work with a weight, load or force that will endanger its safety.
- E5.5 Move stored products or equipment which interfere with operations of City.
- E5.6 Obtain and pay for use of additional storage or work areas needed for operations.
- E5.7 Obtain, pay for, and maintain on Site sanitary facilities from startup to Total Performance.
- E5.8 Maintain roads and access in good condition for efficient execution of work.
- E5.9 Maintain the project site during construction.
- E5.10 Be responsible for damage due to weather, vandalism, etc.

- E5.11 Complete works in a manner that shall result in good surface drainage during periods of precipitation.
- E5.12 Maintain project free of accumulated waste, surplus excavated materials and rubbish.
- E5.13 Haul any waste materials including excavated materials from the site and dispose of in a manner acceptable to the Contract Administrator.
- E5.14 Assume full responsibility for the protection and safekeeping of products under the contract, stored on the site.

E6. DAMAGE TO EXISTING STRUCTURES, TREES AND PROPERTY

- E6.1 All necessary precautions shall be exercised by the Contractor so as not to remove, disturb, or damage any existing trees, shrubs, sod, pavements, streets, roads, boulevards, poles, hydrants, water pipes, gas pipes, electrical wires, cables, conduits, sewers or other existing facilities and equipment at or near to the Site of the Work. For all damage incurred in the performance of the Work (either directly or indirectly), the Contractor shall either replace or repair such damage, whichever may be deemed necessary in the opinion of, and acceptable to the Contract Administrator, and the cost of which shall be borne entirely by the Contractor. The Contractor shall also indemnify and save harmless the City and the Contract Administrator and/or his/her Subconsultants from all claims made directly or indirectly against it in respect to any such damage.
- E6.2 Location of existing works on public property in some areas may restrict the normal operation of heavy machinery. In these areas the contractor is not relieved of any responsibility from damages caused to private or public property. Take all necessary precautions to prevent damage to existing facilities.
- E6.3 When moving heavy equipment protect roads, streets and all property. Use caution when turning heavy equipment on streets to prevent permanent damage. If permanent damage occurs, repair such damage at no expense to the City.

E7. PROTECTION OF THE SURVEY INFRASTRUCTURE

- E7.1 Notwithstanding clause 4 "Protection of Survey Bars" of the Standard Provisions; Current legislation, The Surveys Act, places the onus on those undertaking construction to protect the Survey Infrastructure from damage as a result of their activity.
- E7.2 Further to C:6.26 (g), at least seventy-two (72) hours prior to the commencement of the On-Site Work the Contractor shall contact the City of Winnipeg, Geomatics Services Branch at 204-918-1360 (8:00 am to 4:00 pm Monday to Friday excluding holidays) to obtain underground clearance. Geomatics Services will locate and mark all known outline survey monuments and geodetic control monuments and confirm the physical condition of those monuments upon completion of construction, at no cost to the Contractor.
- E7.3 Where a survey post, bar or control monument lies in the line of the proposed Work and must be disturbed, the Contractor shall provide the Contract Administrator with forty-eight (48) hours notice to permit referencing for future replacement, at no cost to the Contractor. Failure to provide the specified notice shall result in the Contractor paying for all costs associated with replacing or relocating the disturbed outline survey monuments and geodetic control monuments.
- E7.4 Survey monuments and geodetic control monuments at or adjacent to the Site, not in the line of the proposed construction that are damaged or disturbed by the Contractor shall be replaced or relocated by the City or its agent and all associated costs shall be paid for by the Contractor. An approximate estimate of the costs involved to restore a legal survey monument is \$1,000 per bar and \$3,000 per control monument. Contractors must ensure their landscaping and other subcontractors are aware of this clearance procedure and the potential restoration costs.

E7.5 Where possible, amounts owed to the City in accordance with the above will be deducted from any payments to be made by the City to the Contractor.

E8. SETTING OUT OF THE WORK

E8.1 The Contractor shall be responsible for setting control and completing all grading and other work executed under this contract to all lines, elevations, reference points and measurements based on plans and specifications supplied by Contract Administrator.

E8.2 The Contractor shall employ competent person(s) to lay out work.

E8.3 If requested, the Contract Administrator will provide the Contractor with the basic layout plan in AutoCAD dwg format. The Contract Administrator will not provide any survey points, survey data, contours, or DTMs (Digital Terrain Models).

E8.4 Supply Contract Administrator all Survey data utilized upon request of Contract Administrator.

E8.5 The Contractor will mark, to the extent he determines to be necessary, the location, alignment and elevation of the Work by means of stakes or marks, for review and approval by the Contract Administrator. The Contractor shall make the completed Works conform to the lines and marks thus approved and indicated.

E8.6 The Contractor shall notify the Contract Administrator immediately of the disturbance of any such stakes or marks. The cost of correcting any errors arising out of neglect of the Contractor to so notify the Contract Administrator shall be borne entirely by the Contractor, as well as the cost of replacing any disturbed stakes or marks.

E8.7 Before commencing Work, the Contractor shall satisfy him/herself as to the meaning and correctness of all stakes and marks and no claims shall be entertained by the City on account of any alleged inaccuracies. If any error is suspected in the Drawings, Specifications or the directions of the Contract Administrator, Work shall be discontinued until the errors are rectified, but no claims shall be made on account of any delay occasioned thereby.

E8.8 The Contractor shall determine and provide all dimensions and elevations measured from the stakes or marks.

E8.9 The Contract Administrator shall be advised of the staking of the work layout at least twenty-four (24) hours in advance in order that the layout may be inspected and adjusted as required prior to construction. The cost of correcting any errors arising out of neglect of the Contractor to so notify the Contract Administrator shall be borne entirely by the Contractor.

E8.10 The Contract Administrator shall only review the stakes and marks for general conformance to the proposed design. The Contractor shall not rely on this review as authoritative or comprehensive review of the staking and shall remain responsible for conformance to the design intent and drawings following this review.

E8.11 There shall be no separate payment for the layout of the works or the provision of stakes or marks, these items being considered incidental to the items of work being laid out

E9. PERMITS, NOTICES, LICENCES, CERTIFICATES, LAWS AND RULES

E9.1 Further to C6.12, the Contractor shall give all necessary notices, obtain all necessary permits and pay all fees in order that the Work may be carried out. The Contractor shall submit all plans required by any inspection authority and obtain approval of same before proceeding with the Work, and pay any cost attached to the inspection of such plans.

E9.2 The Contractor shall comply with all laws, ordinances, rules and regulations that would relate to the Work.

- E9.3 All notices, consents, approvals, statements, authorizations, documents or other communications to the City shall be submitted to the Contract Administrator.
- E9.4 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety Act.
- E9.5 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety Fall Protection guidelines.
- E9.6 The Contractor and Sub-contractors must be fully aware of all Work involving hazardous materials. All Work must be performed in compliance with the Manitoba Department of Labour Workplace Health and Safety Guidelines and all other applicable codes. The Contractor is responsible for the immediate notification to the Contract Administrator of his/her encountering of suspected hazardous material during their course of Work.

E10. CODES AND STANDARDS

- E10.1 Perform work and obtain permits in accordance with the National Codes of Canada and any other code of provincial or local application including City of Winnipeg. In any case of conflict or discrepancy the more stringent requirements shall apply.
- E10.2 Obtain permits and complete work to meet or exceed the requirements of standards, codes and other documents referred to in this specification.
- E10.3 Where the specifications contained herein are more stringent than the applicable code or standard utilize the most stringent.
- E10.4 Equipment and materials to carry CSA, ULC or cUL approval and conform with applicable standards. There will be no exceptions or alternatives.
- E10.5 Where a standard or code of any type is referred to anywhere in the document, the standard or code utilized for all work shall be the most recent whether or not the most recent is specifically shown or listed.

E11. PEDESTRIAN SAFETY AND TRAFFIC MANAGEMENT

- E11.1 Further to CW 1130, the Contractor shall take such measures as are necessary to ensure safe and convenient pedestrian ingress and egress is maintained to private properties while he/she is Working near them. Any damage caused by the negligence of the Contractor or his/her SubContractors to the adjacent Works or properties, shall be promptly repaired by him at his/her own expense, to the satisfaction of the Contract Administrator.
- E11.2 The Contractor shall, during the construction of this project, maintain safe and accessible access to the adjacent facilities at all times.
- E11.3 It is recognized that during the construction of the project it may be necessary to close parts of the pathway to ensure public safety. The Contractor shall take all appropriate and prudent steps to close the pathway and control pedestrian access at these times including at a minimum appropriate barricades and signage at entry points.
 - (a) When the Contractor plans on closing the pathway he must provide the Contract Administrator with twenty-four hours notice of such a closure.

E12. SITE ENCLOSURES

- E12.1 Temporary Site enclosures, as determined necessary at the pre-construction meeting or as shown on the Drawings, shall be erected and maintained as required for the duration of the construction period.
- E12.2 Site enclosures shall, at a minimum, consist of sectional, 1.8 m ht, non-climbable metal fencing.
- E12.3 Site enclosure shall be sufficient to isolate and secure the jobsite from the adjacent area.

E12.4 It is anticipated that a site enclosure will be required at the Fountainview Park site and will need to be maintained from start of work until Substantial Performance or later is determined by Contract Administrator.

E12.5 Site enclosures shall be considered incidental to the Contract Work and will not be separately measured or paid for.

E13. PROTECTION OF EXISTING TREES

E13.1 The Contractor shall take the following precautionary steps to prevent damage from construction activities to existing trees, and trees within the Site, within the limits of the construction area. If the Contractor requires further information on these specifications, contact the City of Winnipeg Forestry Branch at 986-2004.

- (a) All construction traffic shall be restricted to the limits of construction shown on the drawings.
- (b) Excavation equipment shall be track based.
- (c) All equipment operating in the existing forest, behind the limit of wheeled vehicle line shown on the drawings, shall be track based and have a maximum width of 2 m.
- (d) The contractor shall confine all construction traffic to the alignment of the proposed path, turn around areas, and staging areas as designated on the site by the contract administrator.
- (e) Operation of equipment within the dripline of the trees shall be kept to the minimum required to perform the Work and shall be approved by the Contract Administrator prior to the commencement of Work. Equipment shall not be parked, repaired, refuelled; construction materials shall not be stored, and earth materials shall not be stockpiled within the driplines of the trees. The dripline of a tree shall be considered to be the ground surface directly beneath tree from the tree trunk to the tips of its outermost branches. The Contractor shall ensure that the operations do not cause flooding or sediment deposition on areas where trees are located.

E13.2 Obtain approval from the Contract Administrator to excavate within 2.0 metres of a tree.

E13.3 Excavate in a manner to minimize damage to the tree root systems. Keep exposed roots in excavations and trenches moist or shaded. If stockpiling of excavated soil material is required, stockpile in areas away from the tree roots if possible.

E13.4 All items of tree protection shall be considered incidental to the Work and shall not be measured or paid for separately.

E13.5 The Contractor shall compensate the City in the amount of \$200.00 for every tree removed from site without prior approval by the Contract Administrator. There shall be no compensation for trees removed with the consent of the Contract Administrator prior to the tree removal. The City shall have the right to withhold these monies from any payments due the Contractor.

E14. DEMOLITION, EXCAVATION AND REMOVALS

E14.1 This section shall cover the removal of existing crusher fines path, pea gravel safety surfacing, and play curb where scheduled for removal and removal of trees where it is deemed necessary to complete the project. It shall also cover excavation of the for safety surfacing as well as any other demolition and removal necessary to construct the project which may be considered incidental to other items of Work.

E14.2 To the extent and limits shown on the Drawings, where the existing crusher fines paving is to be removed, the existing material is to be excavated to a depth sufficient to remove the existing granular material in its entirety.

E14.3 Excavated granular material is to be removed from the Site and disposed of in a legally acceptable manner. Should the quality of existing granular material be acceptable and the

contamination of the material with clay or soil be minimal and following inspection and approval of the granular material by the Contract Administrator, the granular material may be used in the base layer of the new crusher fines paving.

- E14.4 Where regrading work is required in connection with the retaining wall, or rip rap the contractor is to perform regrading work taking care to minimize the disturbed footprint within Bois des Esprits. Contractor is not to store or stockpile material on site within Bois des Esprits.
- E14.5 Grassed areas specified for removal shall have the grass surface and growing medium (soil) removed to the elevation of subsurface layer (clay). The excavated material shall be removed from the Site and disposed of or recycled in an environmentally responsible and legal manner.
- E14.6 Where removal of trees is considered essential to completing the regrading work or path realignment the Contractor shall confirm with the Contract Administrator that the trees must be removed prior to removal of the trees
- E14.7 Measurement and payment for this section shall be on the following basis;
- (a) Excavation of the play area at Fountainview park as well as removals of existing play curb where called for on the drawings shall be paid for as a lump sum item as indicated for item 1 'Excavation and Removals' on Form B: Prices.
 - (b) Removal of the tree scheduled for removal at the John Bruce entry in Bois des Esprits shall be paid for at the lump sum rate as indicated for item 7 'Tree Removal' on Form B: Prices.
 - (c) Removal of Crusher fines path and other materials as may be required at the John Bruce entry in Bois des Esprits shall be paid for at the lump sum rate as indicated for item 8 'Demolition' on Form B: Prices.
 - (d) Local grading as may be required for the installation of the retaining wall, path, and rip rap in Bois des Esprits shall be paid for at the lump sum rate indicated for item 10 'Grading' on Form B: Prices.
 - (e) Removal of the existing post and chain guard fence at the ditch crossing in Bois des Esprits shall be paid for at the lump sum rate indicated for item 15 'Removals' on Form B: Prices.
 - (f) Removal of surplus fill material or any other items deemed necessary to complete the work shall be considered incidental to the portions of Work that generated the fill. There will be no separate measurement or payment for this portion of the Work.

E15. GRANULAR PAVING

- E15.1 This specification covers the supply and installation of granular paving including all excavation, compaction, geotextile, sub-base and base construction as well as gravel surfacing, and repair of adjacent surfaces to ensure a smooth transition to the paving. Other items necessary to complete this portion of the Work and not noted elsewhere are considered incidental to this Work.
- E15.2 This specification is supplemental to CW 3110, CW 3130 and CW 3170. Materials and installation are to conform to these standard Specifications.
- E15.3 Sub-base, base materials and depths are as noted on drawing.
- E15.4 Except as specifically noted on the drawing areas of granular paving are to be constructed so as to function with existing drainage patterns and are to have a minimum cross slope of 1% and a maximum cross slope of 2%.
- E15.5 Paths are to be constructed with a maximum running slope on the walking surface of 5% unless otherwise noted on the Drawings.
- E15.6 Contractor is to restore areas used for stockpiling and staging to the satisfaction of the Contract Administrator. Stockpiling is not to take place within Bois des Esprits.

- E15.7 Gravel is to be placed and compacted to a minimum of 95% of proctor density. Where total depth of gravel to be placed exceeds 15 cm gravel is to be placed and compacted in 15 cm lifts. Granular is not to be placed or compacted when in a frozen condition.
- E15.8 Granular paving is to meet existing landscaping, and existing paths in a neat and precise manner.
- E15.9 Measurement and Payment will be at the contract unit price per linear meter for item 11 on Form B; Prices, 'New Crusher Fines Paving'. Measurement shall be of the actual area of the path installed within the limits shown on the Drawings. Price shall be payment in full for supplying materials and for performing all operations listed below:
- (a) Stripping existing topsoil.
 - (b) Excavate/levelling in-situ material to accommodate the pavement structure including base and subbase.
 - (c) Supply and installation of subdrain;
 - (d) Supply and installation of Geotextile.
 - (e) Supply and placement of Crushed limestone base course.
 - (f) Supply and placement of Crushed surfacing.
 - (g) Compaction
 - (h) Repair of tie-in to adjacent surfaces (local wood chip) at edge of newly constructed paving.
 - (i) Restoration of staging areas.
- E15.10 Measurement and Payment for adding additional crusher fines material at the Bosise des Esprits ditch crossing shall be as per the actual volume of the new crusher fines material installed and paid for at the rate indicated for item 17 on Form B: Prices 'Top up Crusher Fines Path' .

E16. SITE CARPENTRY

- E16.1 This specification shall cover the supply and installation of the railing/fence at the John Bruce site entry to Bois des Esprits as well as the ditch crossing railing as described in the drawings. All items are understood to be a complete product including demolition, foundation, posts, trim and other items necessary or incidental to the construction of the items specified.
- E16.2 All site carpentry is to be constructed from the materials and in the form indicated on the drawing.
- E16.3 Contractor is responsible for ensuring that all items are installed according to principles of standard good practice with products and connectors being used as per the manufacturers specification. Contractor shall ensure that structures meet all of the requirements of the Canada Building Code as well as any municipal requirements.
- E16.4 The Railing and Fences shall be measured from the beginning of the run to the end and paid for at the rate identified on Form B:Prices for 'Railing/Fence' and 'Ditch Crossing Railing' respectively.

E17. HDPE CULVERT

- E17.1 This specification shall cover the supply and installation of the culvert extension as described in the drawings. All items are understood to be a complete product including demolition, grading, bedding material, compaction, backfill, and other items necessary or incidental to the construction of the items specified.
- E17.2 Culverts shall be HDPE corrugated pipe with an inside diameter matching the existing culvert unless otherwise noted on the Drawings noted on the drawings and recommended by the manufacturer for use in extending drainage culverts.

- E17.3 Culverts extensions shall be of sufficient length to allow for a level ground extending a minimum of 1 m on either side of the pathway and then a drop in grade to the invert.
- E17.4 Culverts shall be installed as per details shown on the drawings in the locations identified on the site by the Contract Administrator. Extensions are to be attached as per Manufacturers guidelines.
- E17.5 In all other respects culvert installation is to confirm with CW 3610.
- E17.6 Culvert shall be measured and paid for lump sum amount indicated on items 13 on Form B: Prices.

E18. SUPPLY AND PLACEMENT OF RIP-RAP

DESCRIPTION

- E18.1 This Specification shall cover the supply and placement of rip-rap along the Seine river . The rip-rap is to be placed as outlined in the drawings with the slope ends feathered out in a smooth transition with the surrounding grades. At locations where culverts are present, rip-rap is to be placed around the culvert with a minimum 500 mm on either side of the culvert.
- E18.2 The Work to be done by the Contractor shall include superintendence, labor, materials, and all other things necessary for and incidental to the satisfactory performance and completion of all Work as hereinafter specified.

Materials

- E18.3 The rip-rap will be crushed clean, white durable crystalline limestone with a diameter size ranging between 100 mm and 200 mm with a mean average size of 200mm.

Construction Methods

- E18.4 The finished grade shall have slope, grades, detail, treatment and form as shown on Drawings G1 to G4 and final approval of the above will be provided by the Contract Administrator. Installation of rock shall taper at edge of rip rap area as per Drawings.

Quality Control

- E18.5 All workmanship and materials furnished and supplied under this Specification will be subject to inspection by the Contract Administrator, including all operations from the selection and production of materials through the final acceptance of the specific Work. The Contractor shall be responsible for the control of all operations to complete the work, except the inspections or approvals that have been previously given.
- E18.6 The Contract Administrator shall have full access for inspection and control of testing of materials at the site to determine whether the materials are being selected and placed or Work being conducted in accordance with this Specification.

Payment

- E18.7 Supply and installation of rip rap shall be paid for at the lump sum rate indicated for "Rip Rap" on FormB:Prices.

E19. PRECAST CONCRETE RETAINING WALLS

- E19.1 This section shall cover the supply and installation of precast concrete retaining walls.
- E19.2 Retaining walls shall be Barkman DuraHold II walls or substitute approved in accordance with B6. Colour shall be natural.
- E19.3 Capstone shall be Barkman DuraHold II Cap or substitute approved in accordance with B6. Colour shall be natural.

- E19.4 Granular limestone base is to be crushed stone or gravel having hard angular particles, free from clay lumps, cementation, organic material, frozen material or other deleterious materials.
- E19.5 Geotextile shall be non-woven and installed as shown on the drawings. It shall have an apparent opening size of between 0.149 mm and .210 mm and a minimum unit weight of 135 grams per sq. m.
- E19.6 The Contractor shall excavate for the base course, compact, install the geotextile, install the base granular and compact to 100% of proctor density. He shall then build the wall in accordance with manufacturers instructions, backfilling with granular as necessary.
- E19.7 The top course of the wall shall be attached with continuous concrete adhesive. (mastic)
- E19.8 Measurement shall be per Linear Meter of wall length as shown on the Drawings. Payment shall be as per the lump sum rate indicated on Form B: Prices. Walls segments of different heights, individual rows of blocks or capstone length will not be measured separately. Said measure and payment shall be understood to include all items necessary and incidental to supply and installation of the wall including but not limited to excavation, compaction, adhesives, and granular.

E20. SUB-SURFACE DRAINAGE

E20.1 This specification shall include both the sub-surface drain in the playground area and extending the subdrain to the existing catch basin or to a new emitter.

E20.1.1 Description

- (a) Sub-surface drain (Subdrain) related to the playground consists of providing and placing a geocomposite prefabricated drain system as described on the drawings and herein. Drainage system shall be installed in accordance with these specifications and in close conformity with the locations and dimensions as shown on the plans or specified on site by the Contract Administrator. The quantities of drain as shown may be increased or decreased at the direction of the Contract Administrator based on actual site conditions that occur during construction of the project. Such variations in quantity will not be considered as alterations in the details of construction or a change in the character of the Work.
- (b) The subsurface drain described in this section is not intended to replace the manufacturer specified drainage medium or layer but to supplement the safety surface manufacturer specified layer and provide a means of outfall. As such it is to be understood as being in addition to the safety surface manufacturer specified subsurface drainage system.

E20.1.2 Material

- (a) Subsurface drain (subdrain) will be Multi-Flow or approved substitute in accordance with B6. Drainage pipe will be 150 mm (6"). The manufacturer will size and approve all fittings for use with Multi-Flow or approved substitute drainage pipe.
- (b) The drain conduit shall be of flexible, prefabricated, rounded rectangular shaped, composite product. The drain conduit will be wrapped with a non-woven geotextile and will be a non-woven needle-punched construction and consist of long-chain polymeric fibres composed of polypropylene, polyethylene or polyamide. The fibres will be oriented into a multi-directional stable network whereby they retain their positions relative with each other and allow the passage of water as specified. The fabric will be free of any chemical treatment or coating, which reduces permeability and will be inert to chemical commonly found in soil. The geotextile will conform to the following minimum average roll values.

| | | |
|------------------|-------------|-----------|
| Weight | ASTM D-3776 | 3.0 - 4.0 |
| Tensile Strength | ASTM D-4632 | 100 - 130 |
| Elongation % | ASTM D-4632 | 50 - 70 |

| | | |
|--------------------------------|-------------|---------------------------------|
| Puncture, lb | ASTM D-751 | 35 - 60 |
| Mullen Burst, psi | ASTM D-3786 | 110 - 215 |
| Trapezoidal Tear, lb | ASTM D-4533 | 40 - 42 |
| Coefficient of Permeability | ASTM D-4491 | .2 - .4 cm/sec |
| Flow Rate, gpm/ft ² | ASTM D-4491 | 100 - 140 |
| Permittivity, 1/sec | ASTM D-4491 | 1.3 – 2.0 |
| Apparent Opening Size | ASTM D-4751 | 60/70 Max. US Std Sieve Opening |
| Seam Strength, lb/ft | ASTM D-4595 | 100 |
| Fungus | ASTM G-21 | No Growth |

- (c) The drainage core shall be made of a high-density polyethylene. The core shall be constructed using interconnected corrugated pipes that define and provide the flow channels and structural integrity of the drain. The geotextile shall function only as a filter. The core of the edge drain shall conform to the following physical property requirements.

| | | |
|---------------------------|------------------------------------|------|
| Thickness, inches | ASTM D-1777 | 1.0 |
| Flow Rate, gpm/ft* | ASTM D-4716 | 29 |
| Compressive Strength, psf | ASTM D-1621 (modified sand method) | 6000 |
| Pipe Stiffness, pii | ASTM D-2412 | 100 |

* At gradient = 0.1, pressure = 10 psi for 100 hours.

(d) Fittings

- (i) The fittings used with the edge drain shall be of a snap together design. In no case shall any drainage product be joined without the use of the manufacturers connector designed specifically for the purpose. Cleanouts will be provided as indicated on the drawing.

(e) Pipe

- (i) Pipe for drain outlet laterals will be either 75 mm (3") PVC pipe meeting the requirements of ASTM D-2729 or ASTM F-949, or high-density polyethylene pipe meeting the requirements of AASHTO M252.
- (ii) A rodent screen made of 0.3 inch by 0.3-inch square opening size, 0.063-inch gauge, stainless steel or galvanized, welded wire mesh shall be installed in each outlet lateral line. When using galvanized welded wire mesh, the rodent screen shall be galvanized after it has been formed to the shape and dimensions shown on the plans or specified by the Contract Administrator.

E20.1.3 Backfill for Trenches

- (i) Backfill will be coarse sand whose particle size is defined as less than 5% retained on a # 10 screen and less than 5% passing through a # 30 (US Std Sieve) In no case will more than 1% pass a # 60 screen.
- (ii) Contractor shall supply the Contract Administrator a sample of backfill material at least 5 working days prior to installing the geocomposite. Contractor shall not proceed with geocomposite work until the Contract Administrator has approved the backfill material.

E20.1.4 Methods

(a) Subdrain

- (i) The layout of the subdrain is to be marked on Site and approved by the Contract Administrator prior to trenching. Trenches shall be a min. 150mm in width. Optimum location for extending subdrain beyond the play area limits to

- be determined on site. Bidder shall include minimum 24m (or more if shown on the drawings) of drainage pipe beyond play area limits in cost for sub-surface drainage. Drainage pipe connected to adjacent catch basin. Connection to be grouted in place to the satisfaction of the Contract Administrator.
- (ii) Subdrain is to be laid on the prepared surface to facilitate cross movement of water. Subdrain shall be installed below geotextile and in conformance with details provided.
 - (iii) Contractor is to protect subdrain from excessive weight during the duration of construction and to repair and make good any pipe collapsed prior to acceptance.
 - (iv) Fittings for the drain will be installed in accordance with the manufacturer's recommendations and Specification.
 - (v) Any damaged edge drain or outlet lateral will be replaced or repaired by splicing in an undamaged section of drain at the Contractor's expense. The repair must be in accordance with the manufacturer's specification and to the satisfaction of the Contract Administrator.
 - (vi) Outfall is to be into existing catch basin. Connection to be re-grouted around the drain pipe. If no catchbasin is present contractor will provide a 3" polyolefin pop-up drainage emitter with elbow joint, product reference no. NDS# 620 or approved substitute in accordance with B6. Multiflow, or approved substitute, shall be connected to emitter by using manufacturer's adaptor for connecting drainage pipe to 75mm or 100mm round orifice on appropriate hardware. Emitter is to be located on Site by Contract Administrator.

E20.2 Method of Measurement and Basis of Payment

E20.2.1 Method of Measurement and payment shall be as follows:

- (a) Subdrain shall be measured for length and paid for at the rate indicated for "Subsurface Drainage and Emitter" on Form B:Prices. This price shall include the pipe, trenching, backfill, surface restoration, and connected to existing catch basin and/or emitter.

E21. TIMBER PLAY CURB

General Description

- E21.1 The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work according to the drawings and specifications.
- E21.2 This specification shall cover the supply and installation of timber edging including base and cap. It shall also the new composite play curb cap and accessible entry point to be added to the existing play curb.

Materials

- E21.3 All granular base material shall conform to CW 3110-R10 and CW3130-R1. 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.
- E21.4 All bottom timbers to be ACQ pressure treated (P.T.) pine, No.2 or better, no wane, bark, checking or splitting permitted. Wood shall be smooth and free of rough areas. All bottom Timber to be 150mm x 150mm to be longest lengths possible with a minimum length of 1200mm.
- E21.5 Screws shall be stainless steel or ceramic coated and certified for use with ACQ pressure treated wood.
- E21.6 All capping wood to be 32mm x 150mm Trex select coloured saddle S4S or approved equal in accordance with B6. Edge slotted composite will not be accepted.

Construction Methods

- E21.7 Installation shall be as per details provided in the drawings.
- E21.8 Layout shall be established by the Contractor on site as per the drawings provided. Contractor is to ensure that layout is established in such a way as to ensure that minimum safety zones for the proposed play equipment in accordance with on the most recent CSA safety zone requirements, can be established wholly within the curbing as laid out on site.
- E21.9 Timbers shall not be installed until after all rough grading is complete and both the rough grading and the layout and has been reviewed and approved as consistent with the general intent of the design drawings by the Contract Administrator.
- E21.10 Granular base shall be installed as per detail provided and compacted to a minimum of 95 percent Standard Proctor Density.
- E21.11 Timbers shall be installed as per Details provided. Base course timbers shall be pinned with a minimum of two (2) 19mm diameter by 500mm rebar at maximum 1200mm O.C.
- E21.12 Contractor shall install either two layer, three layer or one layer play curb depending on the relative grades between the play area and the surrounding finish grade.
- E21.13 Accessible entry point(s) are to be provided as shown on the drawing and adjusted on site in consultation with the Contract Administrator based upon final configuration of play equipment. Swing area shall have a minimum of one accessible entry point.
- E21.14 All timbers shall be cut neatly for a proper fit with no spaces or gaps between. All cuts shall be treated with end cut as per manufacturers recommendation before being secured. Finished elevations shall ensure that all timbers are smooth, level, set plumb and spaced uniformly. Cuts treated with end cut preservative after being joined will not be accepted.
- E21.15 Trex cap joints to be offset from bottom timber joints by a minimum of 450mm. Trex caps shall be pre-drilled, set with grain of wood curved down, and fastened to base course with screws treated for ACQ use and sized to suit. Trex capping above base course shall be secured with double row of screws offset at 225mm and installed at 600mm O.C. Minimum length of Trex pieces shall be 1200mm.
- E21.16 End gaps between adjacent sections of Trex cap shall be set as per manufacturers requirements. Gaps are to be adjusted with said adjustment determined by the ambient temperature at the time of installation. Corner joints are to be mitered.
- E21.17 Turf shall be repaired by installing topsoil and sod as required around edging in accordance with the CW 3510. The minimum width for a turf repair shall be 60 cm.

Measurement and Payment

- E21.18 Basis of Payment shall be as follows:
- E21.18.1 Play Curb will be paid for at the unit price for Item 3 "Timber Play Curb" on Form B:Prices. This price shall be full payment for supplying all labour, equipment and materials, and performing all operations herein described and all other items incidental to the Work or installing the new timber curb and providing new cap and accessible entry points on existing play curb and repairing the turf at the edge of the excavation for the new play curb.

E22. WOOD FIBRE SURFACING

- E22.1.1 Description
- (a) This specification shall cover the supply and installation of Wood Fibre Surfacing within the Play Area(s) .
- E22.1.2 Materials

- (a) Wood Fibre product shall be either Zeager Woodcarpet or Fibar FibarSystem 200 or 300 products or substitute in accordance with B6.
- (b) Wood Fibre surfacing shall be supplied by an authorized distributor and delivery slips are to be submitted to the Contract Administrator prior to installation.
 - (i) Contact for Woodcarpet:
Zeagar Bros. Inc.
4000 East Harrisburg Pike ·
Middletown, PA 17057
USA
Ph: (1-888) 346-8524 or (717) 944-7481 ·
Fax (717) 944-7681
sales@zeager.com
 - (ii) Contact for FibarSystem 200 or 300:
The Fibar Group LLC
80 Business Park Drive, Suite 300
Armonk, NY 10504-1705
USA
Ph: (800) 342-2721
Fax: (914) 273-8659
info@FibarPlaygrounds.com
- (c) If substitute to Zeager Woodcarpet or Fibar FibarSystem 200 or 300 is proposed, it must meet the following conditions:
 - (i) materials must be IPEMA certified Engineered Wood Fiber
 - (ii) material must consist of random-sized, clean, engineered hardwood chips. Standard wood chips or bark mulch are not acceptable.
 - (iii) materials must meet or exceed ASTM F1292 standards for impact attenuation
 - (iv) materials must be certified by the CSA and approved for playground use
 - (v) materials must comply with ASTM F1951 Standard Specification for Determination of Accessibility of Surface Systems Under and Around Playground Equipment
 - (vi) materials must be covered by \$10,000,000.00 product liability insurance as well as provide a minimum 10 year warranty against loss of resiliency
- (d) Wood Fibre surfacing shall include wood fibre, filter cloth, subsurface drainage system and mats under swings and ends of slides.
- (e) Mats are to be installed half way between geotextile fabric and the top surface of safety surfacing and secured in place with two (2) duckbill anchors per mat.

E22.1.3 Construction Methods

- (a) Where wood fibre surfacing is intended to replace existing pea gravel, pea gravel shall be removed in total from the site, subgrade elevations adjusted to accommodate the new surface, drainage layer and subsurface drainage, ensuring that the grades will result in a top of safety surface that is within safety guidelines for the existing play structure.
- (b) Wood Fibre shall be installed within the play areas, as defined by the timber edging to ensure a minimum depth of 200 mm after compaction (min. 300 mm prior to compaction). In the case where proposed play equipment includes a maximum fall

height greater than 2.4m (8'), depth of material to directly correspond to maximum fall height of play equipment in accordance with manufacturer's specifications.

- (c) The installation of the Wood Fibre shall be done immediately after the play equipment has been installed.
- (d) Installation of entire system, including fibre, filter cloth, subsurface drainage and mats under swings and slide ends shall be done according manufacturer's instructions. Adequate drainage within play equipment area must be ensured as per same.
- (e) Unless otherwise shown on the Drawings or instructed by the Contract Administrator, Subsurface of play area shall be graded to drain to one edge of the play area, and area cleared of any debris which inhibit proper drainage or installation of products. 150mm geocomposite drain pipe shall be installed to carry water from the manufacture recommended subsurface drainage system within the play area to run outside of the play area perimeter to drain towards an existing catch basin or low area, as per instruction by the Contract Administrator. The cost for the entire sub-drain system, manufacturer approved drainage layers, etc, shall be incidental to the cost for the safety surfacing.
- (f) Filter fabric must be cut and fit around playground equipment footings and overlap seams by 300mm.
- (g) Installation shall be done by equipment sized to suit the Work being done and the Wood Fibre shall be spread by hand as necessary in the immediate vicinity of the play equipment so as not to damage same. The play equipment shall be swept clean to the satisfaction of the Contract Administrator after installation of the Wood Fibre.

E22.2 Method of Measurement and Basis of Payment

E22.2.1 Method of Measurement shall be as follows:

- (a) Protective Surfacing will be measured on a Lump Sum Basis. That measurement shall be deemed to include the supply and installation of a new Wood Fibre Play Safety Surfacing System inc. drainage layer, required Mats and Fabric.

E22.2.2 Basis of Payment shall be as follows:

- (a) Protective Surfacing will be paid for at the lump sum price(s), as indicated on Form B: Prices. This price shall be full payment for supplying all labour, equipment and materials, and performing all operations herein described and all other items incidental to the Work and as accepted by the Contract Administrator.

E23. CLIMBING NET

General Description

E23.1 This specification shall cover the supply and installation of the Play Equipment as listed below and specified herein.

E23.2 The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work according to the drawings and specifications.

E23.1 Play Equipment shall be a climbing net with a base width minimum of 21' on the square and minimum of 29' corner to opposite corner and total height of minimum 12'. LSI Lunar Blast Climbing Net or approved equal in accordance with B6.

- (a) LSI equipment may be obtained from:
Playgrounds 'R' Us Phone (204) 632-7000
250 Transport Rd.
Winnipeg, Manitoba
R2C 2Z2

E23.2 Play equipment shall include the supply of maintenance kits. Maintenance kits shall include maintenance manuals, complete manufacturer's parts lists, touch-up paint, PVC repair paint, 10% extra of each bolt, washer and any other hardware utilized on the play equipment, and all special tools necessary for assembly and maintenance.

E23.3 Installation shall be as per manufacturers recommendations.

Basis of Payment

E23.4 Basis of Payment shall be as follows:

(a) Climbing Net shall be paid for at the lump sum rate as indicated for 'Climbing Net' on Form B:Prices. This price shall be full payment for supplying all labour, equipment and materials, and performing all operations herein described and all other items incidental to the Work and as accepted by the Contract Administrator.

(b) There shall be no payment for the maintenance kits.

E24. SITE RESTORATION

E24.1 Total Performance of the Work shall not be attained until the Contractor has cleaned up the Site and has removed all tools, equipment, waste, debris and surplus foundation earth to the satisfaction of the Contract Administrator. Unless otherwise specified, and as a condition of Total Performance the Contractor shall restore all areas of the Site beyond the established limit of Work, which have been disturbed by the Contractor's operations to as good as or better than the original condition to the satisfaction of the Contract Administrator. The Contractor shall pay all costs associated with this Work.