



THE CITY OF WINNIPEG

BID OPPORTUNITY

BID OPPORTUNITY NO. 232-2013

JOHN COULTER PARK PLAYGROUND RENOVATIONS

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 JOHN COULTER PARK PLAYGROUND RENOVATIONS

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 4:00 p.m. Winnipeg time, April 4, 2013.

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

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

B3. SITE INVESTIGATION

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

B4. ENQUIRIES

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

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

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

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

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

B5. ADDENDA

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

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

B5.2.1 Addenda will be available on the Bid Opportunities page at The City of Winnipeg, Corporate Finance, Materials Management Division 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, only to the Bidder who requested approval of the substitute.
- B6.6.1 The Bidder requesting and obtaining the approval of a substitute shall be entirely responsible for disseminating information regarding the approval to any person or persons he/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.
- B6.10 Notwithstanding B6.2 to B6.9, and in accordance with B7.7, deviations inconsistent with the Bid Opportunity document shall be evaluated in accordance with B15.1(a).

B7. BID COMPONENTS

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

- (a) Form A: Bid;
 - (b) Form B: Prices;
 - (a) Design Drawings and Component Descriptions as per B11
- 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. QUALIFICATION

- B10.1 The Bidder shall:
- (a) undertake to be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba; and
 - (b) be financially capable of carrying out the terms of the Contract; and
 - (c) have all the necessary experience, capital, organization, and equipment to perform the Work in strict accordance with the terms and provisions of the Contract.
- B10.2 The Bidder and any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:
- (a) be responsible and not be suspended, debarred or in default of any obligations to the City. A list of suspended or debarred individuals and companies is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/debar.stm>
- B10.3 The Bidder and/or any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:
- (a) have successfully carried out work similar in nature, scope and value to the Work; and

- (b) be fully capable of performing the Work required to be in strict accordance with the terms and provisions of the Contract; and
- (c) have a written workplace safety and health program if required pursuant to The Workplace Safety and Health Act (Manitoba);

B10.4 Further to B10.3(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 valid COR certification number under the Certificate of Recognition (COR) Program administered by the Manitoba Construction Safety Association or by the Manitoba Heavy Construction Association's Safety, Health and Environment Program; or
- (b) a report or letter to that effect from an independent reviewer acceptable to the City. (A list of acceptable reviewers and the review template are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/> .

B10.5 The Bidder shall submit, within three (3) Business Days of a request by the Contract Administrator, proof satisfactory to the Contract Administrator of the qualifications of the Bidder and of any proposed Subcontractor.

B10.6 The Bidder shall provide, on the request of the Contract Administrator, full access to any of the Bidder's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Bidder's equipment and facilities are adequate to perform the Work.

B11. DESIGN DRAWINGS AND COMPONENT DESCRIPTIONS

B11.1 The Bidder shall submit drawings that illustrate the proposed design and play equipment, such as a plan, perspective, and any other submissions sufficient to illustrate the design intent. Additional drawings may be requested prior to award for more detailed information.

B11.2 Design Drawings and Component Descriptions shall be considered as one item for the purposes of evaluation and shall be read together.

B11.3 Design Drawings and Component Descriptions shall include at minimum:

- (a) Site Plan clearly showing the location and orientation of all play components
- (b) Perspective or elevation drawings illustrating play components and the relations between them.
- (c) an itemized list of play components being provided.
- (d) component description and / or graphic or catalogue reference outlining specifications of play equipment components.

B11.4 Drawings shall be submitted in a format no greater than tabloid size (11"x17").

B11.5 Text on drawings shall be not less than 8 pt. (2.82mm) size.

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 B10 (pass/fail);
- (c) Total Bid Price(10 points);
- (d) Design Drawings and Component Descriptions (90 points);
- (e) 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 If there is any discrepancy between the Total Bid Price written in figures, the Total Bid Price written in words and the sum of the quantities multiplied by the unit prices for each item, the sum of the quantities multiplied by the unit prices for each item shall take precedence.
- B15.4.2 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.
- B15.5 Further to B15.1(c) the Award Authority may reject a Bid as being non-responsive if it exceeds the budget as shown on Form B:Prices.
- B15.6 The Total Bid Price shall be evaluated with a weighting of 10 points out of a total of 100 possible points. As such, the lowest Bidder shall receive the full 10 points, and the second lowest Bidder and subsequent Bidders shall be pro-rated accordingly.
- B15.7 Further to B15.1(d) Design Drawings and Component Descriptions shall be evaluated with a weighting of 90 points out of a total of 100 possible points as per B11.
- B15.7.1 The Design shall be evaluated on the following criteria:
- (a) Compliance with CSA Standards (pass/fail);
 - (b) Play value (maximum 45 points):
 - (i) 15 points - Variety of activities provided;
 - (ii) 6 points – Imaginative / cognitive play components(s);
 - (iii) 6 points – Provides opportunities for appropriate social / interpersonal interaction and co-operative play;
 - (iv) 5 points – Gross motor play experiences(s)
 - (v) 5 points – Motion components;
 - (vi) 5 points – Fine motor play components;
 - (vii) 3 Points – Sliding components;
 - (c) Designed for inclusive play using Universal Design principles (maximum 15 points)
 - (i) Complies with section 2.3.5 of the 2010 City of Winnipeg Accessibility Design Standards (www.winnipeg.ca/ppd/Universal_Design.stm) (pass/fail);
 - (ii) 5 points - Layout of the play area for integration of the wheelchair accessible components to promote inclusive play;
 - (iii) 5 points — Provision of tactile and auditory play experiences;
 - (iv) 5 points – Layout of the play area for persons with visual impairment;
 - (d) Layout/circulation (maximum 20 points)
 - (i) 8 points - Flow and relationship between play area activities;
 - (ii) 5 points - Layout / orientation of components on site and in relation to park entrances and seating areas;
 - (iii) 3 points - Slide orientation (metal facing north);
 - (iv) 4 points – Optimize visual access into and within the play are for security purposes;
 - (e) Durability (maximum 10 points)

- (i) Use of durable / tamper-resistant materials, low maintenance finishes and connector systems, and ease of repair / replacement of the products used in the playground area.

B15.8 Further to B15.7(a), if Contractor states play equipment components are compliant with CSA Standards which are not, liquidated damages shall be charged as per D17 should this result in additional design and/or meeting time on the part of the Contract Administrator.

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 will 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 The Supply and Installation of a playground.

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

- (a) Site Preparation including Removals, Excavation, and Disposal;
- (b) Rough Grading including supply and installation of fill if required;
- (c) Supply and installation of Play Curb;
- (d) Supply and installation of Wood Fibre Safety Surfacing System including drainage layer and sub-drain;
- (e) Supply and installation of play components
- (f) Installation of site furniture and signage;
- (g) Supply and installation of associated landscaping.

D3. CONTRACT ADMINISTRATOR

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

Dean Spearman
83 Lafayette Bay
Winnipeg, Manitoba
R3T 3J9

Telephone No. 204 261-4137

Email dean@spearman.mb.ca

D3.2 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. NOTICES

D5.1 Except as provided for in C23.2.2, all notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the Contractor shall be sent to the address or facsimile number identified by the Contractor in Paragraph 2 of Form A: Bid.

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

- D5.3 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

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

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

Facsimile No.: 204 947-9155

SUBMISSIONS

D6. AUTHORITY TO CARRY ON BUSINESS

- D6.1 The Contractor shall be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba, or if the Contractor does not carry on business in Manitoba, in the jurisdiction where the Contractor does carry on business, throughout the term of the Contract, and shall provide the Contract Administrator with evidence thereof upon request.

D7. SAFE WORK PLAN

- D7.1 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.
- D7.2 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/matmgmt/Safety/default.stm>

D8. INSURANCE

- D8.1 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.
- D8.2 Deductibles shall be borne by the Contractor.

D8.3 The Contractor shall provide the Contract Administrator with a certificate(s) of insurance, referencing the Bid Number or the specific operations to be performed, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Work but in no event later than the date specified in C4 for the return of the executed Contract.

D8.4 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.

D9. PERFORMANCE SECURITY

D9.1 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.

D9.1.1 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.

D9.2 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.

D10. SUBCONTRACTOR LIST

D10.1 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.

D11. DETAILED WORK SCHEDULE

D11.1 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.

D11.2 The detailed work schedule shall consist of the following dates:

- (a) start date;
- (b) date site excavation complete;
- (c) arrival of play equipment to Site;
- (d) excavation of holes for play equipment posts & concrete pouring for posts;
- (e) Installation of play curb/retaining wall;
- (f) Installation of safety surfacing;
- (g) installation of paving & topsoil and sod;
- (h) expected completion.

D11.3 Other milestone dates appropriate to this project should also be included to make the Contract Administrator aware of them.

D12. SHOP DRAWINGS

D12.1 The Contractor shall provide the Contract Administrator with an electronic CAD file in DWG format showing the finalized play structure and other play elements and identifying all components. This file shall be provided within five (5) days of receipt of the purchase order or letter of intent, which ever is received earlier.

- (a) If the dwg file has x-refs these shall be bound or the x-ref files provided.
- (b) If the dwg file uses colours by line weight a 'ctb' file shall be provided.
- (c) The dwg file shall not use shape (shx) fonts but shall use true type fonts exclusively.

D13. ORDERING OF PLAY EQUIPMENT

D13.1 The Contractor shall provide the Contract Administrator evidence, to the satisfaction of the Contract Administrator, of having ordered all play equipment necessary to complete the work from the manufacturer/supplier within seven (7) calendar days of receipt of the purchase order or letter of intent, which ever is received earlier.

SCHEDULE OF WORK

D14. COMMENCEMENT

D14.1 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.

D14.2 The Contractor shall not commence any Work on the Site until:

- (a) the Contract Administrator has confirmed receipt and approval of:
 - (i) evidence of authority to carry on business specified in D6;
 - (ii) evidence of the workers compensation coverage specified in C6.15;
 - (iii) the Safe Work Plan specified in D7;
 - (iv) evidence of the insurance specified in D8;
 - (v) the performance security specified in D9; and
 - (vi) the Subcontractor list specified in D10.
 - (vii) The Detailed Work Schedule specified in D11.
 - (viii) The Shop Drawings specified in D12.
 - (ix) And the Evidence of Ordering Play Equipment specified in D13.
- (b) the Contractor has attended a pre-construction meeting with the Contract Administrator, or the Contract Administrator has waived the requirement for a pre-construction meeting.

D14.3 The Contractor shall commence the Work on the Site within forty two (42) Working Days of receipt of the Purchase Order.

D15. SUBSTANTIAL PERFORMANCE

D15.1 The Contractor shall achieve Substantial Performance within Twenty (20) consecutive Working Days of the commencement of the Work as specified in D14.

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 within twenty five (25) consecutive Working Days of the commencement of the Work as specified in D14.

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.

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

D18. SCHEDULED MAINTENANCE

D18.1 The Contractor shall perform the following scheduled maintenance in the manner and within the time periods required by the Specifications:

(a) Sod Maintenance as specified in CW-3510;

D18.2 Determination of Substantial Performance and Total Performance shall be exclusive of scheduled maintenance identified herein. All scheduled maintenance shall be completed prior to the expiration of the warranty period. Where the scheduled maintenance cannot be completed during the warranty period, the warranty period shall be extended for such period of time as it takes the Contractor to complete the scheduled maintenance.

CONTROL OF WORK

D19. JOB MEETINGS

- D19.1 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.
- D19.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he/she deems it necessary.

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

- D20.1 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).

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 D9)

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. 232-2013

JOHN COULTER PARK PLAYGROUND RENOVATIONS

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 D9)

(Date)

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

RE: PERFORMANCE SECURITY - BID OPPORTUNITY NO. 232-2013
JOHN COULTER PARK PLAYGROUND RENOVATIONS

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

(Name of Contractor)

(Address of Contractor)

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

_____ Canadian dollars.

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

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

Partial drawings are permitted.

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

(Address)

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

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

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

(Date)

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

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

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

(Name of bank or financial institution)

Per: _____
(Authorized Signing Officer)

Per: _____
(Authorized Signing Officer)

PART E - SPECIFICATIONS

GENERAL

E1. APPLICABLE SPECIFICATIONS AND DRAWINGS

- E1.1 These Specifications shall apply to the Work.
- E1.2 *The City of Winnipeg Standard Construction Specifications* in its entirety, whether or not specifically listed on Form B: Prices, shall apply to the Work.
- E1.2.1 *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 following are applicable to the Work:

<u>Drawing No.</u>	<u>Drawing Name/Title</u>
L-1	Cover Sheet
L-2	Demolition Plan
L-3	Project Scope Plan
L-4	Layout Plan
L-5	Grading Plan
L-6	Details
L-7	Details 2
L-8	Details 3
SCD-119	Metal Slat Waste Receptacle
SCD-130A	Wheelchair Tache Picnic
SCD-139	Tache Bench Composite with Arms
SCD-719	English Park Sign with Address
SCD-646	Parkway Path Crushed Limestone
SCD-651	Single Timber Edging with Cap
SCD-651A	Double Timber Edging with Cap
SCD-659	Multi Flow Drainage
SD-243	Sod

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. EXISTING SERVICES AND UTILITIES

- E3.1 No responsibility will be assumed by the City or the Contract Administrator for correctness or completeness of the Drawings, when provided, with respect to the existing utilities, pipes or other objects either underground or on the surface; the City and the Contract Administrator shall not be liable for the incorrectness and inadequacy thereof. It shall be the responsibility of the Contractor to determine the location of all such utilities, pipes and other objects and to make good any damage done to them.

E4. ACCESS TO SITE

- E4.1 Access to the Site as required by the Contractor shall be provided and maintained by the Contractor at his own expense and approved by the Contract Administrator.
- E4.2 The Contractor's operations shall be limited to the minimum area necessary for undertaking the Work and he shall be responsible for all damage resulting from his Work on private or public property.
- E4.3 Contractor is advised that work will be taking place in the open field to the west of the playground site concurrent with the work on the playground.

E5. PERMITS, NOTICES, LICENCES, CERTIFICATES, LAWS AND RULES

- E5.1 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.
- E5.2 The Contractor shall comply with all laws, ordinances, rules and regulations that would relate to the Work.
- E5.3 All notices, consents, approvals, statements, authorizations, documents or other communications to the City shall be submitted to the Contract Administrator.
- E5.4 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety Act.
- E5.5 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety Fall Protection guidelines.
- E5.6 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.

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 the Site of the Work. For all damage incurred in the performance of the Work (either directly or indirectly), the Contractor shall either replace and repair such damage, whichever may be deemed necessary in the opinion of, and acceptable to 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 from all claims made directly or indirectly against it in respect to any such damage.
- E6.2 The Contractor shall take the following precautionary steps to prevent damage from construction activities to existing park trees within the limits of the construction area:
- (a) The Contractor shall not stockpile materials and soil or park vehicles and equipment within 2 metres of trees.
 - (b) Trees identified to be at risk by the Contract Administrator are to be strapped with 25x100x2400 wood planks, or suitable protection as approved by the Contract Administrator.
 - (c) Excavation shall be performed in a manner that minimizes damage to the existing root systems. Where possible, excavation shall be carried out such that the edge of the excavation shall be a minimum of 1.5 times the diameter (measured in inches), with the

outcome read in feet, from the closest edge of the trunk. Where roots must be cut to facilitate excavation, they shall be pruned neatly at the face of excavation.

- (d) Operation of equipment within the drip line of the trees shall be kept to a minimum required to perform the Work required. Equipment shall not be parked, repaired, refuelled; construction materials shall not be stored, and earth materials shall not be stockpiled within the drip lines of trees. The drip line of a tree shall be considered to be the ground surface directly beneath the tips of its outermost branches. The Contractor shall ensure that the operations do not cause flooding or sediment deposition on areas where trees are located.

E6.3 All damage to existing trees caused by the Contractor's activities shall be repaired to the requirements and satisfaction of the Contract Administrator and the City Forester or his/her designate.

E6.4 No separate measurement or payment will be made for the protection of trees.

E7. PEDESTRIAN SAFETY AND TRAFFIC MANAGMENT

E7.1 Further to CW 1130-R1, 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 is Working near them. Any damage caused by the negligence of the Contractor or his SubContractors to the adjacent Works or properties, shall be promptly repaired by him at his own expense, to the satisfaction of the Contract Administrator.

E7.2 Ambulance/ Emergency vehicle access must be maintained at all times.

E8. PROTECTION OF THE SURVEY INFRASTRUCTURE

E8.1 Nonwithstanding CW 1130 3.14 'Protection of Survey Infrastructure' of the Standard Construction Specifications, 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.

E8.2 Further to C:6.26(g), at least 72 hours prior to the commencement of the On-Site Work the Contractor shall contact the City of Winnipeg, Geomatics Services Branch at 918-1360 (8:00 a.m. to 4:00 pm Monday to Friday excluding holidays) to obtain 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.

E8.3 Where a survey post, bar, or control monument lies in the line of proposed Work and must be disturbed, the Contractor shall provide the Contract Administrator with 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.

E8.4 Outline survey monuments and geodetic control monuments at or adjacent to the Site, not in 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 \$1000 per bar and \$3000 per control monument. Contractors must ensure SubContractors are aware of this clearance procedure and the potential restoration costs.

E8.5 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.

E9. SITE ENCLOSURES

- E9.1 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.
- E9.2 Site enclosures shall, at a minimum, consist of sectional, 1.8 m ht, non-climbable metal fencing.
- E9.3 Site enclosure shall be sufficient to isolate and secure the jobsite from the adjacent area.
- E9.4 Site enclosures shall be considered incidental to the Contract Work and will not be separately measured or paid for.

SITE WORK

E10. DEMOLITION AND REMOVALS

- E10.1 This section shall cover the removal of existing safety surfacing as well as existing play equipment, site furnishings and timber edging where scheduled for removal. It shall also cover any other demolition and removal necessary to construct the project which may be considered incidental to other items of Work.
- E10.2 To the extent and limits shown on the Drawings, where the existing surfacing is to be removed, it is to be removed in its entirety.
- E10.3 Items designated for removal 'by others' on sheets L-2 shall be removed by City personnel prior to Work beginning under this contract.
- E10.4 Removal of items designated for removal on sheets L-2 shall be included in items 1 on Form B; Prices and shall be paid for as part of that lump sum item.
- E10.5 There shall be no separate measurement and payment for demolition and removals item not scheduled on sheet L-2 with these items being considered incidental to other aspects of the work.

E11. EXCAVATION, EARTHWORK AND GRADING

Description

- E11.1 This specification shall cover all clearing and grubbing, excavation, stockpiling of topsoil, removal or supply and placement of materials necessary to achieve the grades and drainage patterns documented in the Drawings at the sub grade (mud grade) level.
- E11.2 This specification is supplemental to CW 3010 , CW 3110 and CW 3170. Materials and installation are to conform to these standard Specifications.

Construction Methods

- E11.3 Prior to beginning work the Contractor shall establish limits of grading and stake finish grades in a manner consistent with the drawings. Contractor shall not proceed until Contract Administrator has reviewed the grades and the limits for conformance with the design intent and authorized the Contractor to proceed. This contractor shall remain responsible for attaining the design grades irrespective of the Contract Administrators review.
- E11.4 Clearing and grubbing operations are to be completed to the satisfaction of the Contract Administrator prior to the beginning of Earthwork and Grading.
- E11.5 Contractor shall limit operations to the area shown on drawing SP-2 and SP-3.

- E11.6 Grading operations are to be conducted to ensure adequate subcut to install surface materials and structures as detailed on the drawings while still ensuring positive drainage of the finished project.
- E11.7 Grading in the play equipment area is to be as per the drawings provided creating the slopes indicated on SP-5 and at elevations consistent with, following the installation of finish materials, achieving the final grades shown on the drawings.
- E11.8 Subgrade shall be completed and accepted by the Contract Administrator prior to the installation of other works.

Method of Measurement and Basis of Payment

- E11.9 There will be no separate measurement or payment for stockpiling of topsoil, clearing and grubbing operations.
- E11.10 There shall be no separate measurement of payment for excavation and the supply or removal of fill material required for installation of sod, site furniture, curb, and crusher fines paving to the elevations indicated as it shall be considered incidental to the supply and installation of those items.
- E11.11 Excavation and the supply or removal of fill material required for installation of play surfacing and all other excavation or grading operations incidental to the contract and not paid for elsewhere shall be measured and paid for at the contract Lump Sum price for Item 2 on Form B: Prices.

E12. WOOD FIBRE SURFACING

E12.1.1 Description

- (a) This specification shall cover the supply and installation of Wood Fibre Surfacing within the Play Equipment Area(s).
- (b) This specification shall cover the supply and installation of Wood Fibre Surfacing to drain externally as per Drawing LD-1.

E12.1.2 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 Zeagar 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 for accessibility under the Canadians with Disabilities Act
 - (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 directly on top of the geotextile fabric and secured in place with two (2) duckbill anchors per mat.

E12.1.3 Construction Methods

- (a) Wood Fibre shall be installed within the play areas, as defined by the timber edging to a minimum depth of 200 mm (after 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.
- (b) The installation of the Wood Fibre shall be done immediately after the play equipment has been installed.
- (c) 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.
- (d) 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 subdrain system, including geocomposite drain, manufacturer approved drainage layers, etc, shall be incidental to the cost for the safety surfacing.
- (e) Filter fabric must be cut and fit around playground equipment footings and overlap seams by 300mm.
- (f) 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.

E12.2 Method of Measurement and Basis of Payment

E12.2.1 Method of Measurement shall be as follows:

- (a) Protective Surfacing will be measured on a Lump Sum Basis for:

- (i) Item 15: "Supply and install new Wood Fibre Play Safety Surfacing System inc. drainage layer, required Mats and Fabric, and geocomposite drain and emitter" on Form B: Prices.

E12.2.2 Basis of Payment shall be as follows:

- (a) Protective Surfacing will be paid for at the Contract Unit Prices. The amount to be paid for shall be the lump sum price, 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.

E13. SUB-SURFACE DRAINAGE

E13.1.1 Description

- (a) This Work shall consist of providing and placing a geocomposite prefabricated drain system as 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 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.

E13.1.2 Material

- (a) Drainage pipe 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.

E13.1.3 Emitter

- (a) Shall be 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.

- (i) Contact for Emitter:
 Consolidated Turf
 986 Powell Avenue
 Winnipeg, Manitoba
 R3H 0H6
 Tel: 1-204-633-7276
 Fax: 1-204-633-3447

E13.1.4 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.

E13.1.5 Methods

- (a) 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.
- (b) 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.
- (c) 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.
- (d) Fittings for the drain will be installed in accordance with the manufacturer's recommendations and Specification.
- (e) 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 manufacturers specification and to the satisfaction of the Contract Administrator.

E13.2 Method of Measurement and Basis of Payment

E13.2.1 Method of Measurement and payment shall be as follows:

- (a) Sub-surface Drainage shall be measured as installed and paid for at the price per linear meter as per item 16 on Form B: Prices. This shall be understood to include all of the Sub-surface drainage including both that in the safety surface area as well as in the general park areas and also the connection to out-flow.

E14. SODDING

General Description

- E14.1 This specification covers the removal of existing grass, topsoil or sand, levelling or excavating the area designated to receive sod, supply and installation of topsoil and sod, the topdressing and seeding of seam, edges and areas of Site restoration.

Materials and Methods

- E14.2 Topsoil and sod are to be supplied and installed as per CW 3510-R8 and CW 3540-R3.
- E14.3 Areas to be Sodded are to be laid out on Site and approved by Contract Administrator before commencing Work. Work outside the limits approved by the Contract Administrator will not be measured and will not be paid for under this section but considered incidental to the Work. Incidental Site restoration shall conform to the same Specifications.
- E14.4 Where edges of excavation abut existing turf those edges are to be cut with a sod cutter prior to excavation.
- E14.5 The compacted depth of topsoil shall be minimum 10 cm.

Payment

- E14.6 Payment will be at the contract Lump Sum Price for Topsoil and Sod price on item 10 Sod c.w. Topsoil on Form B:Prices. Price shall be payment in full for supplying materials and for performing all operations listed below:
- (a) Supply and installation of topsoil.

- (b) Supply and placement of sod.
- (c) maintenance of sod.

E14.7 Payment shall be as per CW 3510 at the rate specified in item 3 "Supply and Install Topsoil c.w. Sod" on Form B:Prices.

E15. SITE FURNITURE

General Description

- (i) This specification shall cover the installation of Benches, Picnic Tables, Waste Receptacles, and Signs as called for on the drawings. The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work as shown and specified herein.

Materials

- E15.2 All materials supplied under this specification shall be of a type approved by the Contract Administrator, and shall be subject to inspection and testing by the Contract Administrator.
- E15.3 Benches shall be supplied by the City of Winnipeg FOB Central Manufacturing facility at no cost to the Contractor. They shall be as indicated on the drawings.
- E15.4 Picnic Table shall be supplied by the City of Winnipeg FOB Central Manufacturing facility at no cost to the Contractor. They shall be as indicated on the drawings. Colour shall be Cedar.
- E15.5 Waste Receptacle is to be City of Winnipeg metal slat waste receptacle as supplied by the City of Winnipeg FOB Central Manufacturing facility at no cost to the Contractor. They shall be located as indicated on Site by the Contract Administrator .
- E15.6 Park Sign is to be English Park Sign, as per SCD-717AR (c.w. address and 311), supplied by the City of Winnipeg FOB Central Manufacturing facility at no cost to the Contractor, with the names and address (as appropriate);
- (i) "John H Coulter Park"
 - (ii) 75 Eaglemere Dr.
- (b) Contractor is to install three signs, a single sided sign on the west side of the site, a single sided sign at the Silver Springs site entry, and a double sided sign near the playground.
- (c) Contract administrator will identify locations for signage on site.
- E15.7 Contact for site furniture
- (a) Contact for signs, benches, and waste receptacles:
 - (i) Aaron Lennon
Supervisor of Central Repair/Manufacturing Facility
City of Winnipeg
Fleet Management Agency Division
Public Works Department
215 Tecumseh St
Winnipeg. MB R3E 3S4
Email: ALennon@winnipeg.ca
 - (b) Contact for Picnic Tables
 - (i) Carl Woloshyn cwoloshyn@winnipeg.ca Ph: 204-986-3835

Construction Methods

E15.8 Contractor shall obtain Picnic Table, Benches, and Signs, from the City and deliver to the jobsite.

E15.9 All fixtures and furnishings are to be installed as per manufactures instructions.

- (a) Install Benches as per SCD-121A.
- (b) Install park signs as per SCD-153.
- (c) Install waste receptacle as per SCD-119.
- (d) Install picnic table as per SCD-130A.

E15.10 All furnishings and fixtures to be installed plumb and true to correct elevations and location, as directed the Contract Administrator. The Contractor shall confirm proposed locations of all site furnishings with Contract Administrator prior to installation.

E15.11 All furnishings and fixtures to be carefully handled so that no parts will be bent, broken or otherwise damaged. Hammering, which will injure or distort fixture, is prohibited.

Method of Measurement and Basis of Payment

E15.12 Measurement and payment shall be for delivery and installation of each as per Form B: Prices. Said price shall include all Work necessary to deliver and install each item of Site furniture.

E16. CRUSHER FINES PAVING

General Description

E16.1 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 existing sod 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.

Materials and Methods

E16.2 This specification is supplemental to CW 3110, CW 3130 and CW 3170. Materials and installation are to conform to these standard Specifications.

E16.3 Sub-base, base materials and depths are as noted on drawing.

E16.4 Excavation is to be reviewed by Contract Administrator prior to the installation of fabric or sub-base.

E16.5 Sub-base is to be installed and compacted.

E16.6 Where the granular paving is to pass through an existing grassed surface the Contractor is to cut the sod using a sod cutter at the edges of the new patio prior to excavation.

E16.7 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 3%.

E16.8 Granular paving is to meet existing landscaping, concrete paving and roads in a neat and precise manner.

Measurement and Payment

E16.9 Payment will be at the contract lump sum price for 'Crusher Fines Paving' item 4 on Form B: Prices.

E16.10 Where restoration of sod is required and is outside of an area specified for new sod, this shall be considered incidental to the crusher fines paving and will not be measured or otherwise paid for.

- E16.11 Price shall be payment in full for supplying materials and for performing all operations listed below:
- (a) Excavate in-situ material to accommodate the pavement structure including base and subbase.
 - (b) Supply and installation of Geotextile.
 - (c) Supply and placement of Crushed limestone base course.
 - (d) Supply and placement of Crushed surfacing.
 - (e) Compaction

E17. TIMBER/TREX CURB

General Description

- E17.1 The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work according to the drawings and specifications.
- E17.2 This specification shall cover the supply and installation of timber edging/retaining wall to contain the safety surfacing for the New Play Area.

Materials

- E17.3 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.
- E17.4 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.
- E17.5 Screws shall be stainless steel or ceramic coated and certified for use with ACQ pressure treated wood.
- E17.6 All capping wood to be 32mm x 150mm Trex coloured brown S4S or approved equal in accordance with B6.

Construction Methods

- E17.7 Installation shall be as per SCD-651, SCD-651A and detail 1/L-7 as appropriate.
- E17.8 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.
- E17.9 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 intend of the design drawings by the Contract Administrator.
- E17.10 Granular base shall be installed as per detail provided and compacted to a minimum of 95 percent Standard Proctor Density.
- E17.11 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.
- E17.12 Where the Drawings call for a two layer timber curb Contractor shall install as per SCD-651A. Each layer shall be spiked to the layer below.

- E17.13 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.
- E17.14 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.
- E17.15 Trex cap shall be applied to existing play curb and attached consistent with provided details.
- E17.16 Turf shall be repaired as required around edging in accordance with the CW 3510

Measurement and Payment

- E17.17 Method of Measurement shall be as follows:
- (a) Play Curb will be measured on a lump sum basis. This will be deemed to include the Trex cap, all lower layers, excavation, base, compaction, and joiners.
- E17.18 Basis of Payment shall be as follows:
- E17.18.1 Play Curb will be paid for at the lump sum price for item 14 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.

E18. PLAY EQUIPMENT

- E18.1 This specification shall cover the supply and installation of the Play Equipment as listed below and specified herein.
- E18.2 The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work according to the drawings and specifications.
- E18.3 The Contractor shall obtain all approvals including the requisite Development Permit.
- E18.4 Play Equipment shall include;
- (a) an accessible playstructure for children ages 2 to 5
 - (b) as an 8' ht. two bay swing c.w. anti-wrap hangers, 2 belt seats and 2 infant seats
 - (c) independent climber feature(s) for children aged 5 to 12.
 - (d) Two replacement panels for the existing senior play structure as noted on the drawings.
 - (e) and Independent Jr. play components as budget permits.
- E18.4.1 Play Equipment must provide the following play activities
- (a) Balancing;
 - (b) Sliding;
 - (i) min. 2 sliding events at two heights on the structure;
 - (ii) including 1 metal slide at each playground;
 - (c) Climbing (Minimum three events)
 - (d) Imaginative/Cognitive play;
 - (e) Opportunities for social/personal interaction;
 - (f) Motion (springing, spinning, etc);

- E18.4.2 The design submission shall be evaluated as per B15.7.
- E18.5 If colour is a feature of posts, top caps and panels, the Contract Administrator shall have the ability to modify specified colours from the proposed design after Contract Award. If the price of the equipment in the Bid Submission is subject to the colours of the proposed design, this must be indicated in the Bid Submission.
- E18.6 Components which are unacceptable are the following:
- (a) Wooden structures;
 - (b) Tube (enclosed) slides and enclosed crawl tubes;
 - (c) Play panels with many small moving parts;
 - (d) Cable rides;
 - (e) Sand diggers;
 - (f) Merry-go-rounds;
 - (g) Tire Swings;
 - (h) Talk tubes;
 - (i) Roof components;
 - (j) Binoculars / telescopes;
 - (k) Barrel rollers; and
 - (l) Large number of plastic components.

E19. PLAYSTRUCTURES

General Description

- E19.1 This specification shall cover the supply and installation of one or more Playstructures as specified herein.
- E19.2 Play equipment shall be installed in the play area as shown on the Drawings. The play equipment and their safety zones must fit into the proposed play areas as shown on Drawings.

Materials

- E19.3 Posts / Caps
- (a) All posts shall be a minimum 5" O.D. round or 4" square tubing.
 - (b) 3.5 " O.D. round or 3.0" square tubing will be permitted in circumstances where a multi-deck structure has decks of varied heights which are all under 4', or for structures with 2 decks or less.
 - (c) All posts shall be fabricated from either aluminum (0.125" min. wall thickness) or galvanized steel (0.120" min. wall thickness) tubing. All fabrication cuts, drill holes and weld joints shall be sprayed with a corrosion resistant coating. The bottom end of the posts is to be sealed with a moisture barrier.
 - (d) Top caps shall be made of steel construction and shall be factory installed and secured in place with tamper proof, self-sealing rivets. Plastic top caps will be accepted if made of solid construction (hollow caps not accepted).
 - (e) If painted colour is a feature of posts and top caps, it shall be a baked-on polyester powder coating. The powder coating finish shall meet or exceed ASTM standards for hardness, adhesion, impact and salt spray resistance.
- E19.4 Decks (if applicable)
- (a) All decks shall be manufactured from vinyl-coated perforated steel or a steel core composite. Deck heights may vary to a maximum height of 6'.

E19.5 Clamping System

- (a) All deck, rail and play component clamping systems shall be fabricated from zinc plated, galvanized steel, stainless steel or aluminum. Tamper proof, corrosion resistant fasteners shall be used to retain clamping systems.

E19.6 Handrails, Safety Rails and Handloops (if applicable)

- (a) All handrails, safety rails and handloops shall be fabricated using a minimum of 15/16" (24mm) O.D. with a .120" wall thickness steel tubing. After all fabrication activities have occurred including end cuts, drill holes, bends and weld joints, all components shall be hot dipped galvanized.
- (b) Smooth all cut edges and weld joints prior to hot dip galvanizing and ensure that all tubing is free from burrs, cracks, defects and other imperfections.

E19.7 Hardware

- (a) All fasteners shall be socketed and tamper proof in design, and either carbon steel plated with zinc/nickel and iridescent chromate finish or stainless steel.
- (b) All necessary hardware shall be provided.

E19.8 Poly Components

- (a) Poly components such as slides and hoods shall be fabricated from U.V. stabilized, rotationally molded linear low-density polyethylene.
- (b) Poly components such as play panels shall be fabricated from compression molded solid colour, U.V. stabilized, high-density polyethylene.

E19.9 Slides (if applicable)

- (a) Stainless steel is preferred for slide beds, although a plastic slide may be used if there is a stainless steel slide also on the Site. North or east orientation preferred.

E19.10 Each playstructure shall have kick plates and hand loops as required to meet the most recent Canadian Standards Association Standards.

Installation

E19.11 Playstructures shall not be installed until after the play area subgrade has been completed and the subgrade has been accepted by the Contract Administrator.

E19.12 Play equipment shall be installed as per manufacturer's specifications and in accordance with the most recent Canadian Standards Association Standards.

E19.13 All posts and other vertical items shall be plumb and true to vertical, if so designed.

E19.14 All decks shall be level, if so designed.

E19.15 Playstructure shall be secured and rendered unusable until safety surfacing is in place.

Method of Measurement and Basis of Payment

E19.16 Method of Measurement shall be as follows:

- (a) Playstructures will comprise only part of the overall Play Equipment, measured on a lump sum basis:
 - (i) Item 10 on Form B: Prices. This shall include the play structure as well as all play components attached to, or functionally linked to, the structure, but not including Independent Components located within the Play Area.

E19.17 Basis of Payment shall be as follows:

- (a) Playstructures will be paid for at the Contract Unit Prices. The amount to be paid for shall be the lump sum as indicated in Item 10 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.

E20. INDEPENDENT COMPONENTS

General Description

- E20.1 The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work according to the specifications.
- E20.2 This specification shall cover the supply and installation of Independent Components as specified herein.
- E20.3 Independent Components shall be installed as per the proposed design, as the proposed budget will allow.
- E20.4 Independent Components shall be age appropriate for ages 2-5 years old or 5 to 12 years old.
- E20.5 Independent Components shall be installed in the available areas as shown on the Drawings. The Components and their safety zones must fit into the proposed play area.

Materials

- E20.6 All materials shall be structurally sound and suitable for safe play. Durability shall be ensured on all parts and materials.
- E20.7 There shall be a minimum (or no) amount of hollow plastic components. Solid plastic is acceptable.
- E20.8 Selection of play equipment shall minimize the amount of solid elements which limit visibility through the Site.
- E20.9 Fasteners
All hardware shall be tamper-proof in design and requiring special tools. It shall be either carbon steel plated with zinc/nickel and iridescent chromate finish or stainless steel. All necessary hardware and tools shall be provided.

E20.10 Finishes

- (a) Finishes shall meet or exceed ASTM standards for hardness, adhesion, impact and salt spray resistance. All fabrication cuts, drill holes and weld joints shall be sprayed with a corrosion resistant coating.

E20.11 Slides

- (a) If an independent slide is proposed, stainless steel is preferred. If other slides are proposed on the Site one may be plastic. North or east orientation preferred. If independent slide over 4' high is proposed, support posts must be minimum 5"O.D.
- (b) Tube (enclosed) slides and plastic spiral slides will not be accepted.

Installation

- E20.12 Independent components shall not be installed until after the play area subgrade has been completed and the subgrade has been accepted by the Contract Administrator.
- E20.13 Independent components shall be installed according to Manufacturers recommendations and in accordance with the most recent Canadian Standards Association Standards.

E20.14 Independent Components shall be secured and rendered unusable until safety surfacing is in place.

Basis of Payment

E20.15 Basis of Payment shall be as follows:

- (a) Independent senior climbing equipment shall be paid for at the lump sum rate as indicated for item 11 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) Independent Components, other than the senior climbing equipment, if proposed, that are located within the Play Area shall be paid for at the Contract Lump Sum price as indicated for item 12 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.

E21. SWINGS

General Description

This section shall cover the supply and installation of new swings.

Materials

E21.1 New Swings shall be;

- (a) 8' high, two bay, 4 place with 90 mm (3.5") O.D. 8 gauge OR 2 3/8" O.D. 5 gauge, RS40 galvanized steel pipe top beam and 60mm (2 3/8") 10 gauge legs all RS 40-galvanized with powder coated end fittings or 5"Ø Arch Swing.
- (b) Seats shall be two belt type and two infant seats.

E21.2 Seats shall be;

- (a) Enclosed infant seats shall be moulded of U.V. stabilized, high quality rubber with a tempered stainless steel reinforcement plate insert moulded inside, rendering the seats slashproof. Infant seats shall be fully enclosed to prevent slipping out and provide extra lower back support.
- (b) Belt seats shall be slash proof c.w. shackle.

E21.3 Chains shall be heavy duty 4/0 straight link galvanized steel chain, c.w. double clevis and bolt links or approved substitute in accordance with B6.

E21.4 Yoke clamps shall be either one piece construction and fabricated from 8 gauge RS40 Galvanized steel or two piece, compression clamping cast aluminum or galvanized metal with baked on polyester powdercoating. They shall be complete with tamper proof hardware.

E21.5 Swing Hangers shall be fabricated from galvanized malleable iron and have oil impregnated bearings pressed in. Swing hangers shall be anti-wrap.

E21.6 All fabrication cuts, drill holes, and weld joints shall be sprayed with a corrosion resistant coating and the bottom end of the posts shall be sealed with a moisture barrier.

Installation

E21.7 Swings shall not be installed until after the play area subgrade has been completed and the subgrade has been accepted by the Contract Administrator.

E21.8 Swings shall be installed according to manufactures recommendations and in a manner consistent and in accordance with the Canadian Standards Association Guidelines.

E21.9 Swings shall be secured and rendered unusable until safety surfacing is in place.

Measurement and Payment

E21.10 Measurement and payment shall be lump sum as per item 9 on Form B: Prices. This lump sum shall include all items of Work necessary and incidental to supplying and installing complete and operating swings in accordance with Canadian Standards Association guidelines.

E22. FOUNDATIONS

General Description

E22.1 All playground equipment posts, bases and anchors are to be set in concrete footings or piles to ensure stability and prevent frost heaving. The current Standard Construction Specifications of the City of Winnipeg, CW 2160 - latest revision - Concrete to be used in Underground Works, is to be utilized in the installation of the concrete works for all below ground components.

E22.2 An alternative to concrete footings or piles that may be approved includes a welded and secured rail mounting system.

Materials

E22.3 The specific concrete requirements shall be:

- (a) Sulfate resistant, Type 50 Cement;
- (b) 28 day compressive strength of 30 Mpa;
- (c) maximum aggregate size of 20mm, nominal;
- (d) slump 80 +/- 20mm;
- (e) maximum water/cement ratio 0.49.

Installation

E22.4 All posts and supports shall be centred in the concrete footing such that there is a complete collar of concrete around each post and support. Where posts are not perfectly centred there should be a minimum of 2" concrete at any point around the post.

E22.5 All concrete footings for play equipment shall be a minimum of 3' depth, or in accordance with Manufacturer's specifications, whichever is greater.

Method of Measurement and Basis of Payment

E22.6 Method of Measurement shall be as follows:

(a) Foundations shall be incidental to the measurement of Playstructures and Independent Components listed above and as shown on Form B: Prices.

E22.7 Basis of Payment shall be as follows:

(a) No separate payment shall be made for play equipment foundations.

E23. MAINTENANCE KITS

E23.1 All 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.

E23.2 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.