



THE CITY OF WINNIPEG

BID OPPORTUNITY

BID OPPORTUNITY NO. 446-2009

**CHARLESWOOD PARKS PLAYGROUND REDEVELOPMENT FOR CHESTER
SQUARE PARK AND OSCAR PAULSON PARK**

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

- B1.1 CHARLESWOOD PARKS PLAYGROUND REDEVELOPMENT FOR CHESTER SQUARE PARK AND OSCAR PAULSON PARK

B2. SUBMISSION DEADLINE

- B2.1 The Submission Deadline is 4:00 p.m. Winnipeg time, June 25, 2009.
- 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 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 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 wishes to inform.

B6.7 If the Contract Administrator approves a substitute as an "approved equal", any Bidder may use the approved equal in place of the specified item.

B6.8 If the Contract Administrator approves a substitute as an "approved alternative", any Bidder bidding that approved alternative may base his Total Bid Price upon the specified item but may also indicate an alternative price based upon the approved alternative. Such alternatives will be evaluated in accordance with B16.

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 B16.1(a).

B7. BID COMPONENTS

- B7.1 The Bid shall consist of the following components:
- (a) Form A: Bid;
 - (b) Form B: Prices;
 - (c) Design Drawings (plan, perspective, and other submissions to illustrate the design intent);
 - (d) Component Descriptions and/or other graphic or catalogue reference.
- 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 B16.1(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 own name, his name shall be inserted;
 - (b) if the Bidder is a partnership, the full name of the partnership shall be inserted;
 - (c) if the Bidder is a corporation, the full name of the corporation shall be inserted;

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

B8.2.1 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 own name, it shall be signed by the Bidder;
- (b) if the Bidder is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;
- (c) if the Bidder is a corporation, it shall be signed by its duly authorized officer or officers;
- (d) if the Bidder is carrying on business under a name other than his own, it shall be signed by the registered owner of the business name, or by the registered owner's authorized officials if the owner is a partnership or a corporation.

B8.4.1 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.

B9.1.1 Notwithstanding C12.2.3(c), prices on Form B: Prices shall include the Manitoba Retail Sales Tax (MRST, also known as PST), but not include the GST, which shall be extra where applicable.

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 Bidder must complete the Approximate Quantity column for Items 2, 7, 8, and 9 in Chester Square Park and for Items 2, 7, and 9 in Oscar Paulson Park on Form B: Prices. These quantities are dependant on the proposed design as submitted.

B9.4 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.

B9.5 Prices from Non-Resident Bidders are subject to a Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).

B10. DESIGN DRAWINGS

B10.1 The Bidder should submit drawings that illustrate the proposed design and play equipment, such as plan, perspective, and any other submission to illustrate the design intent. Additional drawings may be requested prior to award for more detailed evaluation.

B11. COMPONENT DESCRIPTION

B11.1 The Bidder shall submit component description and/or graphic or catalogue reference outlining the specifications of play equipment components.

B12. QUALIFICATION

B12.1 The Bidder shall:

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

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

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

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

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

B12.4 The Bidder shall submit, within three (3) Business Days of a request by the Contract Administrator, proof satisfactory to the Contract Administrator of the qualifications of the Bidder and of any proposed Subcontractor.

B12.5 The Bidder shall provide, on the request of the Contract Administrator, full access to any of the Bidder's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Bidder's equipment and facilities are adequate to perform the Work.

B13. OPENING OF BIDS AND RELEASE OF INFORMATION

B13.1 Bids will not be opened publicly.

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

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

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

B14. IRREVOCABLE BID

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

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

B15. WITHDRAWAL OF BIDS

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

B15.1.1 Notwithstanding C23.3, the time and date of receipt of any notice withdrawing a Bid shall be the time and date of receipt as determined by the Manager of Materials.

B15.1.2 The City will assume that any one of the contact persons named in Paragraph 3 of Form A: Bid or the Bidder's authorized representatives named in Paragraph 10 of Form A: Bid, and only such person, has authority to give notice of withdrawal.

B15.1.3 If a Bidder gives notice of withdrawal prior to the Submission Deadline, the Manager of Materials will:

- (a) retain the Bid until after the Submission Deadline has elapsed;
- (b) open the Bid to identify the contact person named in Paragraph 3 of Form A: Bid and the Bidder's authorized representatives named in Paragraph 10 of Form A: Bid; and
- (c) if the notice has been given by any one of the persons specified in B15.1(b), declare the Bid withdrawn.

B15.2 A Bidder who withdraws his Bid after the Submission Deadline but before his Bid has been released or has lapsed as provided for in B14.2 shall be liable for such damages as are imposed upon the Bidder by law and subject to such sanctions as the Chief Administrative Officer considers appropriate in the circumstances. The City, in such event, shall be entitled to all rights and remedies available to it at law.

B16. EVALUATION OF BIDS

B16.1 Award of the Contract shall be based on the following bid evaluation criteria:

- (a) compliance by the Bidder with the requirements of the Bid Opportunity (pass/fail);
- (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B11 (pass/fail);
- (c) Total Bid Price (20 points) pursuant to B16.4.18;
- (d) Design/Submission (80 points) pursuant to B16.5;
- (e) economic analysis of any approved alternative pursuant to B6.

B16.2 Further to B16.1(a), the Award Authority may reject a Bid as being non-responsive if the Bid is incomplete, obscure or conditional, or contains additions, deletions, alterations or other irregularities. The Award Authority may reject all or any part of any Bid, or waive technical requirements or minor informalities or irregularities, if the interests of the City so require.

B16.3 Further to B16.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in his Bid or in other information required to be submitted, that he is responsible and qualified.

- B16.4 Further to B16.1(c), the Total Bid Price shall be the sum of the quantities multiplied by the unit prices for each item shown on Form B: Prices.
- B16.4.1 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.
- B16.4.2 Further to B16.1(a), in the event that a unit price is not provided on Form B: Prices, the City will determine the unit price by dividing the Amount (extended price) by the approximate quantity, for the purposes of evaluation and payment.
- B16.4.3 The Total Bid Price shall be evaluated with a weighting of 20 points out of a total of 100 possible points. As such, the lowest Bidder shall receive the full 20 points, and the second lowest bidder and subsequent bidders shall be pro-rated accordingly.
- B16.5 Further to B16.1(c), Design / Submission shall be evaluated with a weighting of 80 points out of a total of 100 possible points. Design / Submission will be evaluated considering the Bidder's Bid Submission and any other information required.
- B16.5.1 The Design shall be evaluated on the following criteria:
- (a) compliance with CSA Standards (pass/fail);
 - (b) play value (maximum 40 points):
 - (i) 10 points – Variety of activities provided;
 - (ii) 5 points – Variety of access points & egress points;
 - (iii) 5 points – Provides opportunities for social / interpersonal interaction and cooperative play;
 - (iv) 10 points – Provides for fine and gross motor and sensory development;
 - (v) 5 points – Fosters creative play;
 - (vi) 5 points – Uniqueness of components as compared to similar playgrounds components within walking distance (400m) of the park.
 - (c) Designed for inclusive play using Universal Design principles (maximum 15 points):
 - (i) 5 points – Provide elevated play components to be wheelchair accessible and well-integrated with other play;
 - (ii) 5 points – Layout of the play area for integration of the wheelchair accessible components to promote inclusive play;
 - (iii) 5 points – Ground level play components to be on a wheelchair accessible route.
 - (d) Layout/circulation (maximum 15 points):
 - (i) 4 points – Efficient use of space within and between play elements;
 - (ii) 4 points – Flow and relationship between play area activities;
 - (iii) 2 points – Layout / orientation of components on Site and in relation to park entrances;
 - (iv) 2 points – orientation to provide good visibility to play area from the adjacent road;
 - (v) 3 points – slide orientation (metal facing north).
 - (e) Durability (maximum 10 points):
 - (i) 3 points – Uses durable / tamper-resistant materials;
 - (ii) 2 points – Low maintenance finishes and connector systems;
 - (iii) 3 points – Ease of repair / replacement;
 - (iv) 2 points – Manufacturer's warranty;

B17. AWARD OF CONTRACT

- B17.1 The City will give notice of the award of the Contract or will give notice that no award will be made.
- B17.2 The City will have no obligation to award a Contract to a Bidder, even though one or all of the Bidders are determined to be responsible and qualified, and the Bids are determined to be responsive.
- B17.2.1 Without limiting the generality of B17.2, the City will have no obligation to award a Contract where:
- (a) the prices exceed the available City funds for the Work;
 - (b) the prices are materially in excess of the prices received for similar work in the past;
 - (c) the prices are materially in excess of the City's cost to perform the Work, or a significant portion thereof, with its own forces;
 - (d) only one Bid is received; or
 - (e) in the judgment of the Award Authority, the interests of the City would best be served by not awarding a Contract.
- B17.3 Where an award of Contract is made by the City, the award shall be made to the responsible and qualified Bidder submitting the lowest evaluated responsive Bid, in accordance with B16.
- B17.3.1 Following the award of contract, a Bidder will be provided with information related to the evaluation of his Bid upon written request to the Contract Administrator.
- B17.4 Notwithstanding C4, the City will issue a Purchase Order to the successful Bidder in lieu of the execution of a Contract.
- B17.5 The Contract, as defined in C1.1, in its entirety shall be deemed to be incorporated in and to form a part of the Purchase Order notwithstanding that it is not necessarily attached to or accompany said Purchase Order.

PART C - GENERAL CONDITIONS

C0. GENERAL CONDITIONS

- C0.1 The *General Conditions for Construction* (Revision 2006 12 15) are applicable to the Work of the Contract.
- C0.1.1 The *General Conditions for Construction* are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at http://www.winnipeg.ca/matmgt/gen_cond.stm
- C0.2 A reference in the Bid Opportunity to a section, clause or subclause with the prefix “**C**” designates a section, clause or subclause in the *General Conditions for Construction*.

PART D - SUPPLEMENTAL CONDITIONS

GENERAL

D1. GENERAL CONDITIONS

D1.1 In addition to the *General Conditions for Construction*, these Supplemental Conditions are applicable to the Work of the Contract.

D2. SCOPE OF WORK

D2.1 The Work to be done under the Contract shall consist of renovating the playgrounds and site improvements at Chester Square Park and Oscar Paulson Park.

D2.2 At Chester Square Park, the major components of the Work are as follows:

- (a) Excavate and legally dispose of materials for new play areas, pathways and planting beds;
- (b) Excavate and legally dispose of old pathways where indicated;
- (c) Supply and install new play equipment;
- (d) Supply and install new swing set;
- (e) Supply and install sandbox;
- (f) Supply and install wood fibre safety surfacing;
- (g) Supply and install playstone safety surfacing;
- (h) Supply and install timber edging;
- (i) Supply and install limestone surfacing and crushed stone paths;
- (j) Supply and install shrub beds;
- (k) Supply and install plant material;
- (l) Supply and install sod and repair any damaged sod.

D2.3 At Oscar Paulson Park, the major components of the Work are as follows:

- (a) Excavate and legally dispose of materials for new play areas;
- (b) Excavate and legally dispose of old pathways where indicated;
- (c) Supply and install new play equipment;
- (d) Supply and install new swing set;
- (e) Supply and install sandbox;
- (f) Supply and install wood fibre safety surfacing;
- (g) Supply and install timber edging;
- (h) Supply and install limestone surfacing;
- (i) Supply and install sod and repair any damaged sod.

D3. CONTRACT ADMINISTRATOR

D3.1 The Contract Administrator is Hilderman Thomas Frank Cram Landscape Architecture and Planning, represented by;

Jason Hutchison
Contract Administrator
500 – 115 Bannatyne Avenue East
Winnipeg, MB R3B 0R3

Telephone No. (204) 944-9907
Facsimile No. (204) 957-1467

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

D4. CONTRACTOR'S SUPERVISOR

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

D5. NOTICES

- D5.1 Except as provided for in C23.2.2, all notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the Contractor shall be sent to the address or facsimile number identified by the Contractor in Paragraph 2 of Form A: Bid.
- D5.2 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the City, except as expressly otherwise required in D5.3, D5.4 or elsewhere in the Contract, shall be sent to the attention of the Contract Administrator at the address or facsimile number identified in D3.1.
- D5.3 Notwithstanding C21., all notices of appeal to the Chief Administrative Officer shall be sent to the attention of the Chief Financial Officer at the following address or facsimile number:

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

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

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

SUBMISSIONS

D6. AUTHORITY TO CARRY ON BUSINESS

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

D7. 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/matmgt/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 added as an additional insured, with a cross-liability clause, such liability policy to also contain contractual liability, unlicensed motor vehicle liability, non-owned automobile liability and products and completed operations, to remain in place at all times during the performance of the Work and throughout the warranty period;
 - (b) automobile liability insurance for owned automobiles used for or in connection with the Work in the amount of at least two million dollars (\$2,000,000.00) at all times during the performance of the Work and until the date of Total Performance;
 - (c) all risks course of construction insurance in the amount of one hundred percent (100%) of the total Contract Price, written in the name of the Contractor and The City of Winnipeg, at all times during the performance of the Work and until the date of Total Performance.
- D8.2 Deductibles shall be borne by the Contractor.
- D8.3 The Contractor shall provide the Contract Administrator with a certificate(s) of insurance, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Work but in no event later than seven (7) Calendar Days from notification of the award of Contract by Purchase Order.
- 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) the staking out of new play areas and pathways;
- (c) excavation of play surface areas and holes for play equipment posts;
- (d) arrival of play equipment to Site;
- (e) concrete pouring for posts;
- (f) expected completion.

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

SCHEDULE OF WORK

D12. COMMENCEMENT

D12.1 The Contractor shall not commence any Work until he is in receipt of a Purchase Order from the Award Authority authorizing the commencement of the Work.

D12.2 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;
 - (vi) the Subcontractor list specified in D10; and
- (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.
- (c) The Contractor has provided a written schedule of work outlining dates and duties to be performed.
- (d) The Contractor shall order the play equipment within seven (7) Working Days of receipt of the purchase order and commence the Work on Site seven (7) Working Days prior to the scheduled installation of the equipment.

D12.3 The Contractor shall commence the Work on the Site within seven (7) Working Days of receipt of the Purchase Order. An exception can be made to accommodate supply of play equipment if

delivery of same cannot be made within this timeframe. In this circumstance the Contractor must get approval of proposed commencement date from the Contract Administrator.

D13. SUBSTANTIAL PERFORMANCE

D13.1 The Contractor shall achieve Substantial Performance within forty-five (45) consecutive Working Days of the commencement of the Work as specified in D12.

D13.2 When the Contractor considers the Work to be substantially performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Substantial Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be re-inspected.

D13.3 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.

D14. TOTAL PERFORMANCE

D14.1 The Contractor shall achieve Total Performance within fifty (50) consecutive Working Days of the commencement of the Work as specified in D12.

D14.2 When the Contractor or the Contract Administrator considers the Work to be totally performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Total Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be re-inspected. All inspections required after the inspection for Total Performance will be subject to liquidated damages.

D14.3 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.

D15. LIQUIDATED DAMAGES

D15.1 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.

D15.2 The amount specified for liquidated damages in D15.1 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.

D15.3 If the Contractor misrepresents the CSA compliance of play equipment being installed and this results in additional design and/or meeting time on the part of the Contract Administrator, the Contractor shall pay the City five hundred dollars (\$500) per Working Day for each and every Working Day during which such additional work continues.

D15.4 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

D16. EXISTING SERVICES AND UTILITIES

D16.1 No responsibility will be assumed by the City for correctness or completeness of the Drawings, when provided, with respect to the existing utilities, pipes or other objects either underground or

on the surface; the City shall not be liable for the incorrectness and inadequacy thereof. It shall be the responsibility of the Contractor to determine the location of all such utilities, pipes and other objects and to make good any damage done to them.

D17. ACCESS TO SITE

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

D18. DAMAGE TO EXISTING STRUCTURES, TREES AND PROPERTY

- D18.1 All necessary precautions shall be exercised by the Contractor so as not to remove, disturb, or damage any existing trees, shrubs, sod, pavements, streets, roads, boulevards, poles, hydrants, water pipes, gas pipes, electrical wires, cables, conduits, sewers or other existing facilities and equipment at the Site of the Work. For all damage incurred in the performance of the Work (either directly or indirectly), the Contractor shall either replace and repair such damage, whichever may be deemed necessary in the opinion of, and acceptable to the City of Winnipeg or 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 from all claims made directly or indirectly against it in respect to any such damage.
- D18.2 The Contractor shall take the following precautionary steps to prevent damage from construction activities to existing park trees within the limits of the construction area.
- D18.3 The Contractor shall not stockpile materials and soil or park vehicles and equipment within 2 meters of trees.
- D18.4 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.
- D18.5 Excavation shall be performed in a manner that minimizes damages 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 by a certified arborist at the face of excavation and treated with wound dressing.
- D18.6 Operation of equipment within the drip line of the trees shall be kept to a minimum required to perform the Work required. Equipment shall not be parked, repaired, refilled; 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 all of the ground surface located beneath the tree and radiating out to the tips of its outermost branches. The Contractor shall ensure that the operations do not cause flooding or sediment deposition on areas where trees are located.
- D18.6.1 All damage to existing trees caused by the Contractor's activities shall be repaired to the requirements and satisfaction of the Contract Administrator and the City Forester or his/her designate.
- D18.7 No separate measurement or payment will be made for the protection of trees.

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 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. PAYMENT

D21.1 Further to C12, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

WARRANTY

D22. WARRANTY

D22.1 Notwithstanding C13.2, the warranty period shall begin on the date of Total Performance and shall expire two (2) years thereafter unless extended pursuant to C13.2.1 or C13.2.2, in which case it shall expire when provided for thereunder.

D22.2 Notwithstanding C13.2 or D22.1, the Contract Administrator may permit the warranty period for a portion or portions of the Work to begin prior to the date of Total Performance if:

(a) a portion of the Work cannot be completed because of unseasonable weather or other conditions reasonably beyond the control of the Contractor but that portion does not prevent the balance of the Work from being put to its intended use.

D22.2.1 In such case, the date specified by the Contract Administrator for the warranty period to begin shall be substituted for the date specified in C13.2 for the warranty period to begin.

D23. SITE RESTORATION

D23.1 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, 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.

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. 446-2009

CHARLESWOOD PARKS PLAYGROUND REDEVELOPMENT FOR CHESTER SQUARE PARK AND OSCAR PAULSON PARK

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)

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-A	OSCAR PAULSON PARK: Existing Site Conditions and Demolition
L.2-A	OSCAR PAULSON PARK: Layout Plan
L.1-B	CHESTER SQAURE PARK: Existing Site Conditions and Demolition
L.2-B	CHESTER SQAURE PARK: Layout Plan
L.3	CHARLESWOOD PARKS: Details 1
L.4	CHARLESWOOD PARKS: Details 2

PLAY EQUIPMENT

E2. GENERAL COMMENTS

- E2.1 This specification shall cover the supply and installation of the Play Equipment as listed below.
- E2.2 The Contractor shall furnish all labour, materials equipment and services necessary to complete the Work according to the drawings and specifications.
- E2.3 The Contractor shall obtain all approvals including the requisite Development Permit.
- E2.4 Play Equipment
- One or more Play Structure(s) or Play Equipment to accommodate children ages 2 to 12 years of age;
 - Minimum one (1) Slide (If slide is metal it must face north or east);
 - One (1) Swingset with 2 Bays (1 Bays Belt Seat, 1 Bay Baby Seats)
 - Area(s) under/at the base of the Structure(s) for creative play experiences;
 - To include accessible structure or equipment as well as ground-level equipment;
 - To include other Play Components as budget and space allows.
- E2.5 If colour is a feature of posts or top caps 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.
- E2.6 Components which are unacceptable are the following:
- Wooden structures;

- (b) Tube (enclosed) slides and 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) Binoculars / telescopes;
- (j) Barrel rollers; and
- (k) Large number of plastic components.

E3. PLAYSTRUCTURES

E3.1 General Description

E3.1.1 This specification shall cover the supply and installation of one or more Play Structures or Play Equipment as specified herein.

E3.1.2 Play equipment shall be installed in the play areas as shown on the attached Drawings L.2-A and L.2-B. The play equipment and their safety zones must fit into the proposed play areas as shown on Drawings L.2-A and L.2-B.

- (a) The proposed design should not necessarily fill the entire available area. Area as shown is the maximum available, not the optimal area. Efficiency and good use of space will be considered in the evaluation of submissions.

E3.2 Materials

E3.2.1 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.

E3.2.2 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'.

E3.2.3 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.

E3.2.4 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.

E3.2.5 Hardware

- (a) All fasteners shall be socketed and tamper proof in design, and either ceramic coated or stainless steel.
- (b) All necessary hardware shall be provided.

E3.2.6 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.

E3.2.7 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.

E3.2.8 Each playstructure shall have kick plates and hand loops as required to meet the most recent Canadian Standards Association Standards.

E3.3 Installation

E3.3.1 Play equipment shall be installed as per manufacturer's specifications and in accordance with the most recent Canadian Standards Association Standards.

E3.3.2 All posts and other vertical items shall be plumb and true to vertical, if so designed.

E3.3.3 All decks shall be level, if so designed.

E3.4 Method of Measurement and Basis of Payment

E3.4.1 Method of Measurement shall be as follows:

- (a) Playstructures will comprise only part of the overall Play Equipment, measured on a lump sum basis for the following:
 - (i) Item # 5 in both Chester Square and Oscar Paulson Parks: "Supply and install New Play Equipment for 2-12 year olds" on Form B: Prices. This shall include all play equipment, including independent components proposed for this area, but excluding swings;
 - (ii) Swings shall be paid for as per E5.

E3.4.2 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 total number of units, 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.

E4. INDEPENDENT COMPONENTS

E4.1 General Description

E4.1.1 The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work according to the specifications.

- E4.1.2 This specification shall cover the supply and installation of Independent Components as specified herein.
- E4.1.3 Independent Components shall be installed as per the proposed design, as the proposed budget will allow.
- E4.1.4 Independent Components shall be installed in the available area as shown on Drawings L.2-A and L.2-B. The Components and their safety zones must fit into the proposed play area.
- E4.2 **Materials**
- E4.2.1 All materials shall be structurally sound and suitable for safe play. Durability shall be ensured on all parts and materials.
- E4.2.2 There shall be a minimum (or no) amount of hollow plastic components. Solid plastic is acceptable.
- E4.2.3 There shall be a minimum amount of solid elements which limit visibility through the Site.
- E4.2.4 **Fasteners**
- (a) All hardware shall be tamper-proof in design and requiring special tools. It shall be either ceramic coated or stainless steel. All necessary hardware and tools shall be provided.
- E4.2.5 **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.
- E4.2.6 **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.
- E4.3 **Method of Measurement and Basis of Payment**
- E4.3.1 **Method of Measurement shall be as follows:**
- (a) As identified in E3.4.1, measurement will be incorporated into the lump sum costs for the play area. As such, no separate measurement will be made for Independent Components.
- E4.3.2 **Basis of Payment shall be as follows:**
- (a) Independent Components, if proposed, shall be included in Item # 5 in both Chester Square and Oscar Paulson Parks: "Supply and install New Play Equipment for 2-12 year olds" on Form B: Prices. No separate payment shall be made.

E5. SWING STANDARD

- E5.1 **General Description**
- E5.1.1 The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work according to the specifications.
- E5.1.2 This specification shall cover the supply and installation of one (1) complete swing standard, as specified herein:
- (a) Three Leg Heavy Duty Swing Frame, 8ft. high, complete with two (2) slash-proof rubber belt seats and two (2) slash-proof rubber enclosed infant seats, heavy-duty chain, swing hangers and "S" hooks / bolt links or approved equal.

E5.2 Materials

E5.2.1 Topbeam

- (a) Topbeam shall be fabricated from 3 1/2" O.D. 7 gauge, RS40 galvanized steel pipe with a baked-on polyester powdercoating. The powder coating finish 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 prior to powdercoating.

E5.2.2 Legs

- (a) All legs shall be fabricated from 2 3/8" O.D. 10 gauge, RS40 galvanized steel pipe with a baked-on polyester powdercoating. The powder coating finish 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 prior to powdercoating. The bottom end of the posts is to be sealed with a moisture barrier.

E5.2.3 Yoke Clamps

- (a) All yoke clamps shall be either one piece construction and fabricated from 8 gauge, RS40 galvanized steel pipe or two piece, compression clamping cast aluminum or galvanized metal complete with tamper-proof hardware.

E5.2.4 Swing Hangers

- (a) All swing hangers shall be fabricated from galvanized malleable iron and have oil impregnated bearings pressed in.

E5.2.5 Swing Chain

- (a) All swing chain shall be 4/0 straight link, galvanized steel.

E5.2.6 Enclosed Infant (Bucket) Seats

- (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 seat slashproof. Infant seats shall be fully enclosed to prevent slipping out and provide extra lower back support.

E5.2.7 Belt Seats

- (a) Belt 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. The perimeter shall be moulded to form a blunt, impact absorbing edge.

E5.2.8 Hardware

- (a) All fasteners shall be tamper proof in design, requiring special tools. The fasteners shall be either carbon steel plated with zinc/nickel and iridescent chromate finish or stainless steel.

E5.2.9 Concrete Foundations

- (a) Post shall be installed into a concrete footing the composition of which is detailed in E6.

E5.3 Installation

E5.3.1 Installation shall be in accordance with Manufacturer's specifications.

E5.3.2 Top rail is to be level and posts securing anchored in concrete.

- (a) Swing seats shall not be installed until the protective surfacing (in accordance with E10) has been installed.

E5.4 Method of Measurement and Basis of Payment

E5.4.1 Method of Measurement shall be as follows:

- (a) Swing Standard will be measured on a per unit basis for Item # 6 in both Chester Square and Oscar Paulson Parks: "Supply and Install New Swingset with 2 Bays (1 Bay Belt Seat, 1 Bay Baby Seat)" on Form B: Prices.

E5.4.2 Basis of Payment shall be as follows:

- (a) Swing Standard will be paid for at the Contract Unit Prices on Form B: Prices. The amount to be paid for shall be the total number of units, measured as specified herein, which price shall be for 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.

E6. FOUNDATIONS

E6.1 General Description

E6.1.1 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-R7. Concrete to be used in Underground Works, is to be utilized in the installation of the concrete works for all below ground components.

E6.2 Materials

E6.2.1 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.

E6.3 Installation

E6.3.1 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.

E6.3.2 All concrete footings for play equipment shall be a minimum of 3' depth, or in accordance with Manufacturer's specifications, whichever is greater.

E6.4 Method of Measurement and Basis of Payment

E6.4.1 Method of Measurement shall be as follows:

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

E6.4.2 Basis of Payment shall be as follows:

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

E7. MAINTENANCE KITS

E7.1 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.

E7.2 There shall be no payment for maintenance kits.

Site Development

E8. EXCAVATION AND DISPOSAL

E8.1 General Description

- E8.1.1 Sand surfacing, peastone surfacing, and new areas for play equipment, pathways and planting beds are to be removed and legally disposed of.
- E8.1.2 Work shall include but not be limited to the following:
- (a) Remove and dispose existing playstone, sand surfacing and existing pathways;
 - (b) Excavate and dispose for new play areas, pathways and planting beds as required.
- E8.1.3 All extraneous materials are to be removed from the Site and disposed of in a safe and legal manner. This specification shall amend and supplement City of Winnipeg Standard Construction Specifications CW 3110 – R11. The Work to be done by the Contractor under this specification shall include all labour, equipment and material necessary for and incidental to the satisfactory performance and completion of the Work herein specified.

E8.2 Materials

- E8.2.1 Excavation and disposal includes the removal of items as indicated on the Drawings and as directed by the Contract Administrator. Work includes the satisfactory disposal of unsuitable Site material such as clays susceptible to frost-heaving, silts, rock rubble rubbish and any surplus suitable Site material. Do not disturb adjacent items designated to remain in place.

E8.3 Construction Methods

- E8.3.1 Swingset Area (Area A):
- (a) Area A is to be excavated to the depths required to accept a minimum 300mm depth of safety play stone. The areas shall be within the maximum area as shown on Drawings L.2-A and L.2-B, to the dimensions as per the design submission, in accordance with Timber Edging Detail on Drawing L.3.
- E8.3.2 Play Equipment Area (Area B):
- (a) Area B is to be excavated to the depths required to accept adequate wood fibre surfacing for the proposed equipment, as per manufacturer's instructions. The areas shall be within the maximum area as shown on Drawings L.2-A and L.2-B, to the dimensions as per the design submission, in accordance with Timber Edging Detail on Drawing L.3.
- E8.3.3 Disposal of material shall be understood to mean the hauling of all unsuitable material from the Site and the unloading in a legal manner acceptable to the Contract Administrator. If arrangements are made in advance excavated material may be disposed of on Site at a location designated by the Contract Administrator.
- E8.3.4 Contractor must coordinate with the Contract Administrator to ensure all removals have occurred.

E8.4 Method of Measurement and Basis of Payment

- E8.4.1 Method of Measurement shall be as follows:
- (a) Removal of existing play surfacing and existing pathways shall be on a cubic meter basis for Item 1: "Remove and Dispose Existing Sand, Peastone Surfacing and Granular Pathways as noted" on Form B: Prices.
 - (b) Excavation and disposal for new play areas shall be measured on a cubic metre basis for Item 2: "Excavate and dispose for New Play Areas A and B" on Form B: Prices.
 - (c) Excavation and disposal for new pathway areas shall be measured on a cubic metre basis for Item 3: "Excavate and dispose for New Pathways" on Form B: Prices
 - (d) Excavation and disposal for new planting bed areas shall be measured on a cubic metre basis for Item 4: "Excavate and dispose for Planting Beds" on Form B: Prices

- (e) The Bidder **must** indicate for Item # 2 in both Chester Square and Oscar Paulson Parks on Form B: Prices the required quantity of units, dependant on the submission.

E8.4.2 Basis of Payment shall be as follows:

- (a) Excavation and Disposal will be paid for at the Contract Unit Prices on Form B: Prices. The amount to be paid for shall be the total number of units, measured as specified herein, which price shall be for 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.

E9. TIMBER EDGING

E9.1 General Description

E9.1.1 The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work according to the drawings and specifications.

E9.1.2 This specification shall cover the supply and installation of timber edging to contain the safety surfacing for the playground areas as per Drawing L.3.

E9.2 Materials and Method

E9.2.1 Cap shall be Pedra and shall not be treated. Top edges of all exposed timbers shall have an 8mm (45°) chamfer. The Pedra cap shall be pre-drilled and screwed with two screws at each end of the timber and at alternating sides at 600mm O.C.

E9.2.2 All wood for the bottom row shall be pressure treated spruce, pine or fir, No. 2 or better, no wane, bark, checking or splitting permitted. Wood shall be smooth and free of rough areas. All timbers to be 150 x 150mm with a minimum length of 1200mm. All ends and cuts shall be treated with preservative before being secured.

E9.2.3 Edging material shall be cut neatly for a proper fit with no spaces or gaps between. Finished elevations shall ensure that all edging material is smooth, level, set plumb and spaced uniformly.

E9.2.4 Turf shall be repaired as required around edging in accordance with City of Winnipeg Standard Specifications for Topsoil and Sodding.

E9.3 Method of Measurement and Basis of Payment

E9.3.1 Method of Measurement shall be as follows:

- (a) Edging will be measured on a linear metre basis for Item # 7 for both Chester Square and Oscar Paulson Parks: "Supply and Install Timber Edging" on Form B: Prices.
- (b) The Bidder **must** indicate for Item # 7 on Form B: Prices the required quantity of units, dependant on the submission.

E9.3.2 Basis of Payment shall be as follows:

- (a) Timber edging will be paid for at the Contract Unit Prices. The amount to be paid for shall be the total number of units, as indicated by the Bidder 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.

E10. PROTECTIVE SURFACING

E10.1 General Description

E10.2 This specification shall cover the supply and install of two distinct types of safety surfacing: playstone and wood fibre.

E10.3 Safety Stone Surfacing (Playstone)

E10.3.1 Description

- (a) This specification shall cover the supply and installation of Safety Stone Surfacing within the areas as per Drawings L.2-A, and L.2-B (Area A).

E10.3.2 Materials

- (a) Safety Stone shall be 6.0mm Playground Stone, composition shall be Typical Birds Hill glacial till material, 100% clean river-washed granite conforming to the following sizes of sieve:

- 100% passing 10mm
- 45% passing 5mm
- Up to 10% passing 2.5mm
- Up to 4% passing 1.25mm
- 0% passing 0.8mm sieve

E10.3.3 Construction Methods

- (a) Geotextile fabric shall be installed as per Drawing L.3. Safety Stone shall be installed within Area A, as defined by the timber edging, to a minimum depth of 300 mm.
- (b) The installation of the Safety Stone shall be done immediately after the swingset has been installed.
- (c) Installation shall be done by equipment sized to suit the Work being done and the Stone 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 Stone.

E10.4 Wood Fibre Surfacing

E10.4.1 Description

- (a) This specification shall cover the supply and installation of Wood Fibre Surfacing within the Play Equipment Area (Area B) as per Drawing L.2-B.
- (b) This specification shall cover the supply and installation of Wood Fibre Surfacing to drain internally as per Drawing L.3.

E10.4.2 Materials

- (a) Wood Fibre product shall be either Zeager Woodcarpet or Fibar FibarSystem 200 or 300 products or substitute acceptable to Contract Administrator.

- (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

- (b) Wood Fibre surfacing shall include wood fibre, filter cloth, subsurface drainage system and mats for bottom of slides, if applicable.

E10.4.3 Construction Methods

- (a) Wood Fibre shall be installed within the play area, as defined by the timber edging (supplied and installed by others), 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 shall be done according manufacturer's instructions. Adequate drainage within play equipment area must be ensured as per same.
- (d) 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.

E10.5 Method of Measurement and Basis of Payment

E10.5.1 Method of Measurement shall be as follows:

- (a) Protective Surfacing will be measured on a cubic metre basis for Item # 8 for both Chester Square and Oscar Paulson Parks: "Supply and Install New Playstone Safety Surfacing (Area A)" on Form B: Prices.
- (b) The Bidder **must** indicate for Item # 8 for both Chester Square and Oscar Paulson Parks on Form B: Prices the required quantity of units, dependant on the submission.
- (c) Protective Surfacing will be measured on a square metre basis for Item #9 in Chester Square Park: "Supply and Install New Wood Fibre Safety Surfacing (Area B)" on Form B: Prices.
- (d) The Bidder **must** indicate for Item # 9 on Form B: Prices the required quantity of units, dependant on the submission.

E10.5.2 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 total number of units, as indicated by the Bidder 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.

E11. PAINTED WOODEN SANDBOX

E11.1 Description

- E11.1.1 This specification shall cover the supply and installation of one (1) Painted Wooden Sandbox as well as two (2) cubic metres of playsand. The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work as shown on Drawings L.2-A and L.2-B and specified herein.

E11.2 Materials

- E11.2.1 All materials supplied under this specification shall be of a type approved by the Contract Administrator, and shall be subject to inspection and testing by the Contract Administrator.

E11.3 Products:

- E11.3.1 Painted Wooden Sandbox shall be as supplied by City of Winnipeg.

Contact:

Jason Bell
Superintendent of Centralized Park Services
City of Winnipeg
Parks and Open Space Division
Public Works Department
825 Tache Ave.
Winnipeg, MB R2H 2C1
Telephone No. (204) 986-4354
Facsimile No. (204) 986-3806

E11.4 Method and Measurement of Payment

E11.4.1 The Painted Wooden Sandbox will be measured on a lump sum basis for the following:

- (a) Item # 11 in both Chester Square and Oscar Paulson Parks: "Supply & Install New Sandbox complete with Playsand" on Form B: Prices. Painted Wooden Sandbox shall be free of charge for supply.
- (b) These prices 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.

E12. LIMESTONE SURFACING AND PATHWAYS

E12.1 Description

E12.1.1 This Specification shall amend and supplement the City of Winnipeg Specification CW 3110-R11. The Work to be done by the Contractor under this Specification shall cover all phases of supply and placement of crushed limestone surfacing materials necessary to install a Limestone Base for all Limestone Surface areas indicated on Drawings L.2-A and L.2-B.

E12.2 Materials

E12.2.1 New Limestone Surfacing shall consist of a 100 mm base coarse depth of 19 mm diameter crushed limestone down, with a 50 mm depth of 6 mm diameter limestone capping as per Drawing L.3.

E12.3 Construction Method

E12.3.1 The Contractor shall stake out location of limestone areas prior to the start of construction as shown on the construction drawings. Layout shall be checked and confirmed with Contract Administrator prior to construction.

E12.3.2 Geotextile fabric shall be installed as per Drawing L.3. All granular base course shall be placed and compacted to the finished thickness as specified on the drawings.

E12.3.3 Base Course and Capping Course shall be compacted to a minimum of Hundred (100%) of Standard Proctor Density.

E12.4 Method and Measurement of Payment

E12.4.1 Limestone Surfacing will be paid for on a square metre basis for the following:

- (a) Item # 10 in both Chester Square and Oscar Paulson Parks: "Supply and Install Limestone Surfacing" on Form B: Prices.

- (b) 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. SODDING AND SITE RESTORATION

E13.1 Description

- (a) 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, 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.
- (b) Sod and Topsoil: The Contractor shall install mineral sod and a minimum 75mm compacted thickness of topsoil, as required, and in accordance with CW 3510-R9 and CW 3540-R5.
 - (i) The Contractor shall install mineral sod and topsoil in any areas requiring repair as a result of damage from the Work.

E13.2 Method of Measurement and Basis of Payment

E13.2.1 Method of Measurement shall be as follows:

- (a) Sodding and Site Restoration shall be incidental to the measurement of play equipment installation and siteworks listed above and as shown on Form B: Prices.

E13.2.2 Basis of Payment shall be as follows:

- (i) No separate payment shall be made for Sodding and Site Restoration.

E14. TREE, SHRUB AND GROUNDCOVER PLANTING

E14.1 Description

- E14.1.1 The Work to be done by the Contractor under this Specification shall cover all phases of supply and installation of planting beds and all plants and associated materials. Refer to Drawings L.2-B and L.3 for location of planting beds and planting details.

E14.2 Materials

E14.2.1 Plant Material:

- (a) Type of root preparation, sizing, grading and quality: comply to Canadian Standards for Nursery Stock.
 - (i) Source of plant material: grown in Zone 3a in accordance with Plant Hardiness Zones in Canada.
 - (ii) Plant material must be planted in zone indicated as appropriate for its species.
- (b) Plant Material: free of disease, insects, defects or injuries and structurally sound with strong fibrous root system.
- (c) Plant species, cultivars and sizes as indicated on the drawings.
- (d) Trees: with straight trunks, well and characteristically branched for species except where specified otherwise.

E14.2.2 Planting Mix:

- (a) Planting Mix: A mixture of particulates, micro organisms and organic matter which provides suitable medium for supporting intended plant growth. Topsoil stripped on Site may be used but must be tested for appropriate soil characteristics.

- (i) Soil texture based on The Canadian System of Soil Classification, to consist of 20 to 70% sand, minimum 7% clay, and contain 2 to 10% organic matter by weight.
- (ii) Contain no toxic elements or growth inhibiting materials.
- (iii) Finished surface free from:
 - ◆ Debris and stones over 50mm diameter.
 - ◆ Coarse vegetative material, 10mm diameter and 100mm length, occupying more than 2% of soil volume.
- (iv) Consistence: friable when moist.

E14.2.3 Water:

- (a) Free of impurities that would inhibit plant growth.

E14.2.4 Stakes:

- (a) T-bar: recycled steel, 38 x 38 x 5 x 2400mm.

E14.2.5 Wire Tightener:

- (a) PG wire tightener.

E14.2.6 Guying Wire:

- (a) 9 Gauge, flexible, non-corrosive strand wire.

E14.2.7 Tree Protection:

- (a) Plastic, 13mm \emptyset , nylon reinforced garden hose over guy wire.

E14.2.8 Trunk Collar:

- (a) 150mm \emptyset , corrugated plastic pipe, 300mm height.

E14.2.9 Anti-Desiccant:

- (a) Wax-like emulsion.

E14.2.10 Mulch:

- (a) Wood Chip Mulch, varying in size from 50mm to 75mm and 5 to 20mm thick, free of bark. Woodchip mulched on site will be accepted if it meets the required consistency and is found to be free of contaminants and disease.

E14.2.11 Fertilizer:

- (a) Horticultural bonemeal: raw bonemeal, finely ground with minimum analysis of 3% nitrogen and 10% phosphoric acid.

E14.3 Construction Method

E14.3.1 Ensure that plant material is acceptable to the Contract Administrator. Remove damaged roots and branches before applying anti-desiccant in accordance with manufacturer's instructions to any wounds on the planting material.

E14.3.2 Excavation and Preparation of Planting Beds.

- (a) Spread topsoil in uniform layers not exceeding 150mm to depths indicated on drawings or in corresponding specifications sections.
- (b) For individual planting holes:
 - (i) Excavate to depth and width as indicated on Drawing L.3.
 - (ii) Remove rocks, roots, debris and toxic material from excavated material that will be used as planting soil for trees and individual shrubs. Legally dispose of excess material.
 - (iii) Scarify sides of planting hole.

E14.3.3 Planting

- (a) For jute burlapped rootballs, cut away top one third of wrapping and wire basket without damaging rootball. Do not pull burlap or rope from under rootball.
- (b) For container stock or rootballs in non-degradable wrapping, remove entire container or wrapping without damaging rootball.
- (c) Plant vertically in locations as indicated. Orient plant material to give best appearance in relation to structure, roads and walks.
- (d) For trees and shrubs:
 - (i) Backfill soil in 150mm lifts. Tamp each lift to eliminate air pockets. When two thirds of depth of planting pit has been backfilled, fill remaining space with water. After water has penetrated into soil, backfill to finish grade.
 - (ii) Form watering saucer as indicated.
- (e) Water plant material thoroughly. Use deep root feeders for trees.
- (f) After soil settlement has occurred, fill with soil to finish grade.
- (g) Legally dispose of burlap, wire and container material.

E14.3.4 Trunk Protection

- (a) Install trunk protection on deciduous trees as indicated.
- (b) Install trunk protection prior to installation of tree supports when used.

E14.3.5 Tree Supports

- (a) Install tree supports as indicated.
- (b) Use double stake tree support for deciduous trees.
 - (i) Place stake on prevailing wind side and 150mm from trunk.
 - (ii) Drive stake minimum 150mm into undisturbed soil beneath roots. Ensure stake is secure, vertical and unsplit.
 - (iii) Install 150mm long guying collar 1500mm above grade.
 - (iv) Thread Type 1 guying wire through guying collar tube. Twist wire to form collar and secure firmly to stake. Cut off excess wire.
- (c) After tree supports have been installed prune as directed by Contract Administrator. Pruning to be completed by a Certified Arborist.

E14.3.6 Mulching

- (a) Wood Chip Mulch.
 - (i) Obtain Contract Administrator's approval of planting before mulching material is applied.
 - (ii) Ensure soil settlement has been corrected prior to mulching with wood chip mulch.
 - (iii) Spread wood chip mulch as indicated on Drawings.
 - (iv) Loosen soil in planting beds and pits and remove debris and weeds. Spread mulch to minimum thickness of 75mm. Mulch material susceptible to blowing must be moistened and mixed with topsoil before applying. When mulching is placed in fall, place immediately after planting. When mulch is placed in spring, wait until soil has warmed up.

E14.3.7 Maintenance

- (a) Maintain plant material for 30 days after installation.
 - (i) Watering (minimum every second day).
 - (ii) Fertilizing.
 - (iii) Weeding.
 - (iv) Pruning.

E14.4 Method of Measurement and Basis of Payment

E14.4.1 Method of Measurement shall be as follows:

- (a) Planting Beds will be measured on a square metre basis for Item 12: "Supply and Install New Planting Beds" on Form B: Prices.
- (b) Plant Material will be measured as individual items on a per species basis for Items 13-16: "Supply and Install New Silver Maple, New Meyer Lilac, New White Pavement Rose, and Savin Juniper." on Form B: Prices.

E14.4.2 Basis of Payment shall be as follows:

- (a) The Planting Beds and Plant Material will be paid for at the Contract Unit Prices. The amount to be paid for shall be the total number of units, measured as specified herein which 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.

E15. PATHWAY CULVERT CROSSING

E15.1 Description

E15.1.1 The Work to be done by the Contractor under this Specification shall cover all phases of supply and installation of a crossing point over a culvert and associated materials. Refer to Drawings L.2-B and L.3 for location of crossing point and crossing point details.

E15.2 Materials

E15.2.1 Culvert:

- (a) 150mm \emptyset galvanized corrugated steel pipe, as supplied by Westman Culvert or approved equal.
 - (i) Contact for Westman Culvert:
2976 Day Street ·
Winnipeg, MB R2C 2Z2
Canada
Ph: (204) 222-7354 ·
Fax (204) 222-8470
- (b) 200 – 450mm \emptyset river washed rock mulch.
- (c) Timber edging shall be pressure treated spruce, pine or fir, No. 2 or better, no wane, bark, checking or splitting permitted. Wood shall be smooth and free of rough areas. All timbers to be 150 x 150mm with a minimum length of 1200mm. All ends and cuts shall be treated with preservative before being secured.
- (d) New Limestone Surfacing shall consist of a 100 mm base course depth of 19 mm diameter crushed limestone down, with a 50 mm depth of 6 mm diameter limestone capping as per Drawing L.3.

E15.3 Construction Method

E15.3.1 Culvert:

- (a) Rough grade culvert bed to slopes and profiles indicated. Compact subgrade to 98% standard proctor density prior to installing pipe.
- (b) Install pipe as per Drawing L.3 ensuring a minimum 2% slope. Ensure pipe length extends sufficiently beyond paving limits to allow for grade changes, as noted on drawings.
- (c) Ensure a minimum of 200mm base course depth of 19mm diameter crushed limestone over the 150mm \emptyset culvert.
- (d) Grade around culverts to slopes and contours indicated.

- (e) Install 200 – 450mm \varnothing clean washed rock mulch around culvert ends as indicated on the drawings.

E15.3.2 The Contractor shall stake out location of limestone areas prior to the start of construction as shown on the construction drawings. Layout shall be checked and confirmed with Contract Administrator prior to construction.

E15.3.3 All granular base courses shall be placed and compacted to the finished thickness as specified on the drawings.

E15.3.4 Base Course and Capping Course shall be compacted to a minimum of Hundred (100%) of Standard Proctor Density.

E15.3.5 Timber edging material shall be cut neatly for a proper fit with no spaces or gaps between. Finished elevations shall ensure that all edging material is smooth, level, set plumb and spaced uniformly.

E15.3.6 Turf shall be repaired as required around edging in accordance with City of Winnipeg Standard Specifications for Topsoil and Sodding.

E15.4 Method of Measurement and Basis of Payment

E15.4.1 Method of Measurement shall be as follows:

- (a) The Pathway Culvert Crossing will be measured on a lump sum basis for the following:

- (i) Item 17: "Supply and install Pathway Culvert Crossing w/ Timber Edging" on Form B: Prices.

E15.4.2 Basis of Payment shall be as follows:

- (a) The Pathway Culvert Crossing w/ Timber Edging will be paid for at the Contract Unit Prices. The amount to be paid for shall be the total number of units, measured as specified herein which 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.