



THE CITY OF WINNIPEG

BID OPPORTUNITY

BID OPPORTUNITY NO. 661-2013

**MURIEL SAGE PLAYGROUND REDEVELOPMENT & DEGRAFF PLAYGROUND
REDEVELOPMENT**

TABLE OF CONTENTS

PART A - BID SUBMISSION

Form A: Bid	1
Form B: Prices	3

PART B - BIDDING PROCEDURES

B1. Contract Title	1
B2. Submission Deadline	1
B3. Site Investigation	1
B4. Enquiries	1
B5. Confidentiality	1
B6. Addenda	2
B7. Substitutes	2
B8. Bid Components	3
B9. Bid	4
B10. Prices	4
B11. Qualification	5
B12. Design Drawings	6
B13. Component Description	6
B14. Opening of Bids and Release of Information	6
B15. Irrevocable Bid	6
B16. Withdrawal of Bids	6
B17. Evaluation of Bids	7
B18. Award of Contract	8

PART C - GENERAL CONDITIONS

C0. General Conditions	1
------------------------	---

PART D - SUPPLEMENTAL CONDITIONS

General

D1. General Conditions	1
D2. Scope of Work	1
D3. Contract Administrator	1
D4. Contractor's Supervisor	1
D5. Ownership of Information, Confidentiality and Non Disclosure	2
D6. Notices	2

Submissions

D7. Authority to Carry on Business	2
D8. Safe Work Plan	3
D9. Insurance	3
D10. Performance Security	3
D11. Subcontractor List	4

Schedule of Work

D12. Commencement	4
D13. Substantial Performance	4
D14. Total Performance	5
D15. Liquidated Damages	5
D16. Scheduled Maintenance	5

Control of Work

D17. Job Meetings	5
D18. Prime Contractor – The Workplace Safety and Health Act (Manitoba)	6
D19. The Workplace Safety and Health Act (Manitoba) – Qualifications	6

Measurement and Payment

D20. Payment	6
--------------	---

Warranty

D21. Warranty	6
---------------	---

Miscellaneous

D23. Existing Services and Utilities	6
D24. Access To Site	6
D25. Permits, Notices, Licenses, Certificates, Laws and Rules	6
D26. Damage to Existing Structures, Trees and Property	7
D27. Site Restoration	7
D28. Pedestrian Safety And Traffic Management	8
D29. Site Enclosures	8
Form H1: Performance Bond	9
Form H2: Irrevocable Standby Letter of Credit	11
Form J: Subcontractor List	13

PART E - SPECIFICATIONS

General

E1. Applicable Specifications and Drawings	1
E2. General Site Demolition, Excavation, Rough Grading and Site Access Restoration	1
E3. Building Demolition	3
E4. Play Equipment	4
E5. Swing Set	8
E6. Foundations	9
E7. Maintenance Kits	10
E8. Timber Edging	10
E9. Protective Surfacing and Sub-surface Drainage	11
E10. Topsoil and Sod	14
E11. Site Furniture	15
E12. Interlocking Paving	17
E13. Granular Paving	17
E14. Plant Material	18

PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

MURIEL SAGE PLAYGROUND REDEVELOPMENT & DEGRAFF PLAYGROUND REDEVELOPMENT

B2. SUBMISSION DEADLINE

- B2.1 The Submission Deadline is 4:00 p.m. Winnipeg time, September 11, 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, a Site meeting will be held at 10 a.m. on September 4, 2013 at Muriel Sage Park, located at the intersection of Muriel Street and Sage Crescent, to provide Bidders access to the Site.
- B3.2 The Bidder is advised that at this meeting the existing building, which is to be demolished, will be opened/unlocked so the Bidder may see the inside construction and determine the nature of demolition.
- B3.3 The Bidder shall not be entitled to rely on any information or interpretation received at the Site investigation unless that information or interpretation is the Bidder's direct observation, or is provided by the Contract Administrator in writing.

B4. ENQUIRIES

- B4.1 All enquiries shall be directed to the Contract Administrator identified in D3.1.
- B4.2 If the Bidder finds errors, discrepancies or omissions in the Bid Opportunity, or is unsure of the meaning or intent of any provision therein, the Bidder shall notify the Contract Administrator of the error, discrepancy or omission, or request a clarification as to the meaning or intent of the provision at least five (5) Business Days prior to the Submission Deadline.
- B4.3 Responses to enquiries which, in the sole judgment of the Contract Administrator, require a correction to or a clarification of the Bid Opportunity will be provided by the Contract Administrator to all Bidders by issuing an addendum.
- B4.4 Responses to enquiries which, in the sole judgment of the Contract Administrator, do not require a correction to or a clarification of the Bid Opportunity will be provided by the Contract Administrator only to the Bidder who made the enquiry.
- B4.5 The Bidder shall not be entitled to rely on any response or interpretation received pursuant to B4 unless that response or interpretation is provided by the Contract Administrator in writing.

B5. CONFIDENTIALITY

- B5.1 Information provided to a Bidder by the City or acquired by a Bidder by way of further enquiries or through investigation is confidential. Such information shall not be used or disclosed in any way without the prior written authorization of the Contract Administrator. The use and disclosure of the confidential information shall not apply to information which:
- (a) was known to the Bidder before receipt hereof; or

- (b) becomes publicly known other than through the Bidder; or
- (c) is disclosed pursuant to the requirements of a governmental authority or judicial order.

B5.2 The Bidder shall not make any statement of fact or opinion regarding any aspect of the Bid Opportunity to the media or any member of the public without the prior written authorization of the Contract Administrator.

B6. ADDENDA

B6.1 The Contract Administrator may, at any time prior to the Submission Deadline, issue addenda correcting errors, discrepancies or omissions in the Bid Opportunity, or clarifying the meaning or intent of any provision therein.

B6.2 The Contract Administrator will issue each addendum at least two (2) Business Days prior to the Submission Deadline, or provide at least two (2) Business Days by extending the Submission Deadline.

B6.2.1 Addenda will be available on the Bid Opportunities page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>

B6.2.2 The Bidder is responsible for ensuring that he/she has received all addenda and is advised to check the Materials Management Division website for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.

B6.2.3 The Bidder shall acknowledge receipt of each addendum in Paragraph 8 of Form A: Bid. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.

B7. SUBSTITUTES

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

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

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

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

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

- B7.5 The Contract Administrator, after assessing the request for approval of a substitute, may in his/her sole discretion grant approval for the use of a substitute as an “approved equal” or as an “approved alternative”, or may refuse to grant approval of the substitute.
- B7.6 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, only to the Bidder who requested approval of the substitute.
- B7.6.1 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.
- B7.7 If the Contract Administrator approves a substitute as an “approved equal”, any Bidder may use the approved equal in place of the specified item.
- B7.8 If the Contract Administrator approves a substitute as an “approved alternative”, any Bidder bidding that approved alternative may base his/her Total Bid Price upon the specified item but may also indicate an alternative price based upon the approved alternative. Such alternatives will be evaluated in accordance with B17.
- B7.9 No later claim by the Contractor for an addition to the Total Bid Price because of any other changes in the Work necessitated by the use of an approved equal or an approved alternative will be considered.
- B7.10 Notwithstanding B7.2 to B7.9, and in accordance with B8.7, deviations inconsistent with the Bid Opportunity document shall be evaluated in accordance with B17.1(a).

B8. BID COMPONENTS

- B8.1 The Bid shall consist of the following components:
- (a) Form A: Bid;
 - (b) Form B: Prices;
 - (c) Design drawings as per B12, and
 - (d) Component Descriptions as per B13;
- B8.2 Further to B8.1, the Bidder should include the written correspondence from the Contract Administrator approving a substitute in accordance with B7.
- B8.3 All components of the Bid shall be fully completed or provided, and submitted by the Bidder no later than the Submission Deadline, with all required entries made clearly and completely, to constitute a responsive Bid.
- B8.4 The Bid Submission may be submitted by mail, courier or personal delivery, or by facsimile transmission.
- B8.5 If the Bid Submission is submitted by mail, courier or personal delivery, it shall be enclosed and sealed in an envelope clearly marked with the Bid Opportunity number and the Bidder's name and address, and shall be submitted to:
- The City of Winnipeg
Corporate Finance Department
Materials Management Division
185 King Street, Main Floor
Winnipeg, MB R3B 1J1
- B8.5.1 Samples or other components of the Bid Submission which cannot reasonably be enclosed in the envelope may be packaged separately, but shall be clearly marked with the Bid Opportunity number, the Bidder's name and address, and an indication that the contents are part of the Bidder's Bid Submission.

- B8.6 Bidders are advised not to include any information/literature except as requested in accordance with B8.1.
- B8.7 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 B17.1(a).
- B8.8 If the Bid Submission is submitted by facsimile transmission, it shall be submitted to 204 949-1178.
- B8.8.1 The Bidder is advised that the City cannot take responsibility for the availability of the facsimile machine at any time.
- B8.8.2 Bids submitted by internet electronic mail (e-mail) will not be accepted.

B9. BID

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

B10. PRICES

- B10.1 The Bidder shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.

- B10.2 Where quantities have not been shown in Form B: Prices the Bidder shall provide the quantities required to meet their design submission. No additional payment will be made to the Contractor for any additional material or labour required to supply and install more quantities of materials, over and above those quantities listed in Form B Prices, for the items/quantities the Contractor has provided and estimated to be required, to complete the Work as per their Design Submission.
- B10.3 The quantities for which payment will be made to the Contractor are to be determined by the Work actually performed and completed by the Contractor, to be measured as specified in the applicable Specifications.
- B10.4 Payments to Non-Resident Contractors are subject to Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).

B11. QUALIFICATION

- B11.1 The Bidder shall:
- (a) undertake to be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba; and
 - (b) be financially capable of carrying out the terms of the Contract; and
 - (c) have all the necessary experience, capital, organization, and equipment to perform the Work in strict accordance with the terms and provisions of the Contract.
- B11.2 The Bidder and any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:
- (a) be responsible and not be suspended, debarred or in default of any obligations to the City. A list of suspended or debarred individuals and companies is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/debar.stm>
- B11.3 The Bidder and/or any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:
- (a) have successfully carried out work similar in nature, scope and value to the Work; and
 - (b) be fully capable of performing the Work required to be in strict accordance with the terms and provisions of the Contract; and
 - (c) have a written workplace safety and health program if required pursuant to The Workplace Safety and Health Act (Manitoba);
- B11.4 Further to B11.3(c), the Bidder shall, within five (5) Business Days of a request by the Contract Administrator, provide proof satisfactory to the Contract Administrator that the Bidder/Subcontractors has a workplace safety and health program meeting the requirements of The Workplace Safety and Health Act (Manitoba), by providing:
- (a) a valid COR certification number under the Certificate of Recognition (COR) Program administered by the Construction Safety Association of Manitoba or by the Manitoba Heavy Construction Association's WORKSAFELY™ COR™ Program; or
 - (b) a report or letter to that effect from an independent reviewer acceptable to the City. (A list of acceptable reviewers and the review template are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/> .
- B11.5 The Bidder shall submit, within three (3) Business Days of a request by the Contract Administrator, proof satisfactory to the Contract Administrator of the qualifications of the Bidder and of any proposed Subcontractor.

B11.6 The Bidder shall provide, on the request of the Contract Administrator, full access to any of the Bidder's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Bidder's equipment and facilities are adequate to perform the Work.

B12. DESIGN DRAWINGS

B12.1 The Bidder shall submit drawings (maximum 11" x 17" size) that illustrate the proposed design and play equipment, such as plan, perspective and any other submissions to illustrate the design intent. At least one overall Site plan drawing must be submitted showing the location of the swing within the park and in relation to the new playstructure area. The play structure drawing shall clearly show the walkways which connect up to the pavement around the old wading pool, so the accessibility route can be determined, from the walkway to the play structure. The type of playstructure post i.e.: steel or aluminum, and the method of ground bracing for the play structure, must be shown and clearly defined on the drawing submissions. Additional drawings may be requested prior to award for more detailed information.

B13. COMPONENT DESCRIPTION

The Bidder shall submit component description and / or graphic or catalogue reference outlining specifications of play components should the play structure drawings not be able to communicate the information properly. It is highly recommended that the drawing submissions illustrate and show the nature of play components over using references to the catalogues.

B14. OPENING OF BIDS AND RELEASE OF INFORMATION

B14.1 Bids will not be opened publicly.

B14.2 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>

B14.3 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/>

B14.4 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.

B15. IRREVOCABLE BID

B15.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 9 of Form A: Bid.

B15.2 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.

B16. WITHDRAWAL OF BIDS

B16.1 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.

B16.1.1 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.

B16.1.2 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.

B16.1.3 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 B16.1.3(b), declare the Bid withdrawn.

B16.2 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 B15.2 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.

B17. EVALUATION OF BIDS

B17.1 Award of the Contract shall be based on the following bid evaluation criteria:

- (a) compliance by the Bidder with the requirements of the Bid Opportunity or acceptable deviation there from (pass/fail);
- (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B11 (pass/fail);
- (c) Total Bid Price (20 points)
- (d) Design Drawings/Component Description (80 points) pursuant to B12 & B13
- (e) economic analysis of any approved alternative pursuant to B7.

B17.2 Further to B17.1(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.

B17.3 Further to B17.1(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.

B17.4 Further to B17.1(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.

B17.4.1 Further to B17.1(a), in the event that a unit price is not provided on Form B: Prices, the City will determine the unit price by dividing the Amount (extended price) by the approximate quantity, for the purposes of evaluation and payment.

B17.4.2 Further to B14.1(c) the Award Authority may reject a Bid as being non-responsive if it exceeds the budget as shown on Form B: Prices.

B17.4.3 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.

B17.5 Further to B16.1(d). Play Areas shall be evaluated with a weighting of 80 points out of a total of 100 possible points. Play Areas will be evaluated considering the Bidder's Bid Submission and any other information required.

B17.5.1 The Design shall be evaluated on the following criteria:

- (a) compliance with CSA Standards (pass/fail);

- (b) use of aluminum posts for the playstructure will be given 10 points. Use of steel posts will not be given any points.
- (c) The play structure shall be geared for age 2 -12. The swings will not form part of the play value calculation.
- (d) play value (maximum 35 points):
 - (i) 5 points – Sensory/ Imaginative Play component(s), including fine motor skills;
 - (ii) 11 points – Climbing Component(s);
 - (iii) 7 points – Motion Component(s);
 - (iv) 2 points – Sliding Component(s);
 - (v) 5 points - Provides opportunities for appropriate social / interpersonal interaction and cooperative play.
 - (vi) 5 points- compliance of play value with for all age groups between age 2 -12.
- (e) Designed for inclusive play using Universal Design principles (maximum 10 points):
 - (i) Complies with section 4.5.4 of the 2006 City of Winnipeg Accessibility Design Standards (www.winnipeg.ca/ppd/UD/default.stm)(pass/fail);
 - (ii) 4 points - Layout of the play area for integration of wheelchair accessible components to promote inclusive play;
 - (iii) 4 points – Provision of tactile and auditory play experiences.
 - (iv) 2 points – layout of the play area for persons with visual impairment
- (f) Layout/circulation (maximum 10 points):
 - (i) 7 points - Efficient use of space within the full area allocated for the play equipment
 - (ii) 2 points - Layout / orientation of components on Site and in relation to surrounding park amenities and seating areas;
 - (iii) 1 points - Slide orientation (metal facing north or east facing).
- (g) Durability (maximum 10 points):
 - (i) Use of durable / tamper-resistant materials, low maintenance finishes and connector systems & ease of repair / replacement of the products used with the playground area. The use of aluminum posts in place of steel posts will be rated and points awarded separately as per B17.5.1(b)
- (h) Drawing and Design Submission Clarity (maximum 5 points):
 - (i) 1 points- Drawing submission including complete Site plan including all surrounding site amenities within 20 metres of the play area and clearly showing the location of all play equipment, safety surfacing and timber boundaries, walkways connections, and all Site restoration requirements.
 - (ii) 4 points – clarity of drawings, play component literature, photos, 3-d drawings, isometrics, and all other data submissions that allow the design submission to be clearly understood.

B17.6 Further to B17.5.1(a), if Contractor states play equipment components are compliant with CSA Standards which are not, liquidated damages shall be charged as per D14, should this result in additional design and/or meeting time on the part of the Contract Administrator.

B18. AWARD OF CONTRACT

B18.1 The City will give notice of the award of the Contract or will give notice that no award will be made.

B18.2 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.

- B18.2.1 Without limiting the generality of B18.2, 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.
- B18.3 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 B17.
- B18.3.1 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.
- B18.4 Notwithstanding C4, the City will issue a Purchase Order to the successful Bidder in lieu of the execution of a Contract.
- B18.5 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 play equipment at Muriel Sage Playground and Degraff Park.

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

- (a) Muriel Sage Playground
 - (i) Demolition of one building
 - (ii) Removal of some existing paving, and sand safety surfacing
 - (iii) Capping off of an existing sewer line
 - (iv) Supply and installation of a new play equipment, and engineered safety surfacing
 - (v) Supply and installation of a new interlocking paved patio, and granular walkway
 - (vi) Supply and installation of shrub plantings and sodding repairs
 - (vii) Installation only of site furniture
- (b) Degraff Park
 - (i) Removal of sand safety surfacing and timber edging
 - (ii) Supply and installation new play equipment and engineered safety surfacing
 - (iii) Supply and installation of granular walkways
 - (iv) Supply and installation of new topsoil and sod
 - (v) Installation only of site furniture

D3. CONTRACT ADMINISTRATOR

D3.1 The Contract Administrator is Ken Rech Landscape Architects Inc, represented by:

Ken Rech
Landscape Architect
Telephone No. 204 204 489-6616
Email: kenrech@mymts.net

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

D3.3 Bids Submissions must be submitted to the address in B8.5.

D3.4 At the pre-construction meeting, the Contract Administrator will identify additional personnel representing the Contract Administrator and their respective roles and responsibilities for the Work.

D3.5 Bids Submissions must be submitted to the address in B8.5.

D4. CONTRACTOR'S SUPERVISOR

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

D5. OWNERSHIP OF INFORMATION, CONFIDENTIALITY AND NON DISCLOSURE

- D5.1 The Contract, all deliverables produced or developed, and information provided to or acquired by the Contractor are the property of the City and shall not be appropriated for the Contractors own use, or for the use of any third party.
- D5.2 The Contractor shall not make any public announcements or press releases regarding the Contract, without the prior written authorization of the Contract Administrator.
- D5.3 The following shall be confidential and shall not be disclosed by the Contractor to the media or any member of the public without the prior written authorization of the Contract Administrator;
- (a) information provided to the Contractor by the City or acquired by the Contractor during the course of the Work;
 - (b) the Contract, all deliverables produced or developed; and
 - (c) any statement of fact or opinion regarding any aspect of the Contract.
- D5.4 A Contractor who violates any provision of D5 may be determined to be in breach of Contract.

D6. NOTICES

- D6.1 Except as provided for in C23.2.2, all notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the Contractor shall be sent to the address or facsimile number identified by the Contractor in Paragraph 2 of Form A: Bid.
- D6.2 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the City, except as expressly otherwise required in D6.3, D6.4 or elsewhere in the Contract, shall be sent to the attention of the Contract Administrator at the facsimile number identified in D3.1.
- D6.3 Notwithstanding C21., all notices of appeal to the Chief Administrative Officer shall be sent to the attention of the Chief Financial Officer at the following facsimile number:
- The City of Winnipeg
Chief Financial Officer
Facsimile No.: 204 949-1174
- D6.4 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications required to be submitted or returned to the City Solicitor shall be sent to the following facsimile number:
- The City of Winnipeg
Legal Services Department
Attn: Director of Legal Services
Facsimile No.: 204 947-9155

SUBMISSIONS

D7. AUTHORITY TO CARRY ON BUSINESS

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

D8. SAFE WORK PLAN

- D8.1 The Contractor shall provide the Contract Administrator with a Safe Work Plan at least five (5) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.
- D8.2 The Safe Work Plan should be prepared and submitted in the format shown in the City's template which is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgmt/Safety/default.stm>

D9. INSURANCE

- D9.1 The Contractor, and/or sub-contractor (if requested) 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 Ken Rech Landscape Architects Inc. added as an additional insured, with a cross-liability clause, such liability policy to also contain contractual liability, unlicensed motor vehicle liability, non-owned automobile liability and products and completed operations, to remain in place at all times during the performance of the Work and throughout the warranty period;
 - (b) Automobile Liability Insurance covering all motor vehicles, owned and operated and used or to be used by the Contractor directly or indirectly in the performance of the Work. The Limit of Liability shall not be less than \$2,000,000 inclusive for loss or damage including personal injuries and death resulting from any one accident or occurrence;
 - (c) 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.
 - (d) Evidence of operations to include demolition of buildings, supply and installation of playground equipment at the Muriel Sage Park and DeGraff Park.
- D9.2 Deductibles shall be borne by the Contractor.
- D9.3 The Contractor shall provide the Contract Administrator with a certificate(s) of insurance, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Work but in no event later than seven (7) Calendar Days from notification of the award of Contract by Purchase Order.
- D9.4 The Contractor shall not cancel, materially alter, or cause each policy to lapse without providing at least thirty (30) Calendar Days prior written notice to the Contract Administrator.

D10. PERFORMANCE SECURITY

- D10.1 If the Contract Price exceeds twenty-five thousand dollars (\$25,000.00), the Contractor shall provide and maintain performance security until the expiration of the warranty period in the form of:
- (a) a performance bond of a company registered to conduct the business of a surety in Manitoba, in the form attached to these Supplemental Conditions (Form H1: Performance Bond), in the amount of fifty percent (50%) of the Contract Price; or
 - (b) an irrevocable standby letter of credit issued by a bank or other financial institution registered to conduct business in Manitoba and drawn on a branch located in Winnipeg, in the form attached to these Supplemental Conditions (Form H2: Irrevocable Standby Letter of Credit), in the amount of fifty percent (50%) of the Contract Price; or
 - (c) a certified cheque or draft payable to "The City of Winnipeg", drawn on a bank or other financial institution registered to conduct business in Manitoba, in the amount of fifty percent (50%) of the Contract Price.

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

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

D11. SUBCONTRACTOR LIST

D11.1 The Contractor shall provide the Contract Administrator with a complete list of the Subcontractors whom the Contractor proposes to engage (Form J: Subcontractor List) at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than seven (7) Calendar Days from notification of the award of Contract.

SCHEDULE OF WORK

D12. COMMENCEMENT

D12.1 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.

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 D7;
 - (ii) evidence of the workers compensation coverage specified in C6.15;
 - (iii) the Safe Work Plan specified in D8;
 - (iv) evidence of the insurance specified in D9;
 - (v) the performance security specified in D10; and
 - (vi) the Subcontractor list specified in D11.
- (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 shall order the play equipment and submit this information to the Contract Administrator within seven (7) Working Days of receipt of the Purchase Order

D12.3 The City intends to award this Contract by October 15, 2013.

D12.3.1 If the actual date of award is later than the intended date, the dates specified for Substantial Performance, and Total Performance will be adjusted by the difference between the aforementioned intended and actual dates.

D13. SUBSTANTIAL PERFORMANCE

D13.1 The Contractor shall achieve Substantial Performance within twenty (20) 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 twenty two (22) 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.
- 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 or Total Performance in accordance with the Contract by the day fixed herein for Substantial or Total Performance, the Contractor shall pay the City five hundred dollars (\$500.00) per Calendar Day for each and every Calendar Day following the day fixed herein for Substantial or Total 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 or Total Performance by the day fixed herein for same.
- D15.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

D16. SCHEDULED MAINTENANCE

- D16.1 The Contractor shall perform the following scheduled maintenance in the manner and within the time periods required by the Specifications:
- (a) Topsoil and sod as specified in E10;
- D16.2 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

D17. JOB MEETINGS

- D17.1 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.
- D17.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he/she deems it necessary.

D18. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)

D18.1 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).

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

D19.1 Further to B11.4 the Contractor/Subcontractor must, throughout the term of the Contract, have a Workplace Safety and Health Program meeting the requirements of The Workplace Safety and Health Act (Manitoba). At any time during the term of the Contract, the City may, at its sole discretion and acting reasonably, require updated proof of compliance, as set out in B11.4.

MEASUREMENT AND PAYMENT

D20. PAYMENT

D20.1 Further to C12, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

WARRANTY

D21. WARRANTY

D21.1 Warranty is as stated in C13.

MISCELLANEOUS

D23. EXISTING SERVICES AND UTILITIES

D23.1 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.

D24. ACCESS TO SITE

D24.1 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.

D24.2 The Contractor is responsible to correcting all Site damage as a result of their operations, or accessing the Site at no further cost to the City. All repairs must be done to pre-construction conditions.

D24.3 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.

D25. PERMITS, NOTICES, LICENSES, CERTIFICATES, LAWS AND RULES

D25.1 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.

D25.2 The Contractor shall comply with all laws, ordinances, rules and regulations that would relate to the Work.

- D25.3 All notices, consents, approvals, statements, authorizations, documents or other communications to the City shall be submitted to the Contract Administrator.
- D25.4 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety Act.
- D25.5 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety Fall Protection guidelines.
- D25.6 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.

D26. DAMAGE TO EXISTING STRUCTURES, TREES AND PROPERTY

- D26.1 All necessary precautions shall be exercised by the Contractor so as not to remove, disturb, or damage any existing trees, shrubs, sod, pavements, streets, roads, boulevards, poles, hydrants, water pipes, gas pipes, electrical wires, cables, conduits, sewers or other existing facilities and equipment at the Site of the Work. For all damage incurred in the performance of the Work (either directly or indirectly), the Contractor shall either replace and repair such damage, whichever may be deemed necessary in the opinion of, and acceptable to City of Winnipeg Contract Administrator, and the cost of which shall be borne entirely by the Contractor. The Contractor shall also indemnify and save harmless the City from all claims made directly or indirectly against it in respect to any such damage.
- D26.2 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.
- D26.3 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.
- D26.4 No separate measurement or payment will be made for the protection of trees.

D27. SITE RESTORATION

- D27.1 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.

D28. PEDESTRIAN SAFETY AND TRAFFIC MANAGEMENT

D28.1 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 Sub-Contractors to the adjacent Works or properties, shall be promptly repaired by him at his own expense, to the satisfaction of the Contract Administrator.

D28.2 Ambulance/ Emergency vehicle access must be maintained at all times.

D29. SITE ENCLOSURES

D29.1 Temporary Site enclosures, The Contractor must fence off the Work area with a bright orange safety fence, securely staked to keep the fence in an upright position. This fence shall be installed at the commencement of construction and be maintained until the safety surfacing and topsoil and sod has been installed.

D29.2 Site enclosures shall be considered incidental to the Contract Work.

FORM H1: PERFORMANCE BOND
(See D10)

KNOW ALL MEN BY THESE PRESENTS THAT

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

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

_____ dollars (\$_____)

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

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

BID OPPORTUNITY NO. 661-2013

**MURIEL SAGE PLAYGROUND REDEVELOPMENT & DEGRAFF PLAYGROUND
REDEVELOPMENT**

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

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

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

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

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

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

_____ day of _____, 20____.

SIGNED AND SEALED
in the presence of:

(Witness as to Principal if no seal)

(Name of Principal)

Per: _____ (Seal)

Per: _____

(Name of Surety)

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

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

(Date)

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

RE: PERFORMANCE SECURITY - BID OPPORTUNITY NO. 661-2013

**MURIEL SAGE PLAYGROUND REDEVELOPMENT & DEGRAFF PLAYGROUND
REDEVELOPMENT**

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

(Name of Contractor)

(Address of Contractor)

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

Canadian dollars.

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

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

Partial drawings are permitted.

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

(Address)

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

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

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

(Date)

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

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

This credit is subject to the Uniform Customs and Practice for Documentary Credit (2007 Revision), International Chamber of Commerce Publication Number 600.

(Name of bank or financial institution)

Per: _____
(Authorized Signing Officer)

Per: _____
(Authorized Signing Officer)

PART E - SPECIFICATIONS

GENERAL

E1. APPLICABLE SPECIFICATIONS AND DRAWINGS

- E1.1 These Specifications shall apply to the Work.
- E1.2 *The City of Winnipeg Standard Construction Specifications* in its entirety, whether or not specifically listed on Form B: Prices, shall apply to the Work.
- E1.2.1 *The City of Winnipeg Standard Construction Specifications* is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/Spec/Default.stm>
- E1.2.2 The version in effect three (3) Business Days before the Submission Deadline shall apply.
- E1.2.3 Further to C2.4(d), Specifications included in the Bid Opportunity shall govern over *The City of Winnipeg Standard Construction Specifications*.
- E1.3 The following are applicable to the Work:

<u>Drawing No.</u>	<u>Drawing Name/Title</u>
L-1	DeGraff Park - Existing Site Plan and Demolition Plan
L-2	DeGraff Park - New Site Plan
L-3	DeGraff Park and Muriel Sage Playground – Wading Pool Sections
L-4	Muriel Sage Playground.- Site Details
SCD-121	Tache Bench Composite
SCD-122A	Tache Style Wheelchair Metal Frame Picnic Table
SCD-645	Park Path Crushed Limestone
SCD-650	Engineered Wood Fibre Safety Surfacing Drainage Diagram
SCD-651A	Double Timber Edging with Cap
SCD-656	Accessible Playground Ramp
SCD-659	Multi-Flow Drainage

E2. GENERAL SITE DEMOLITION, EXCAVATION, ROUGH GRADING AND SITE ACCESS RESTORATION

- E2.1 General Description
- E2.1.1 This specification shall cover the removal of existing paving, sand safety surfacing, and excavation and legal disposal of grass surfacing from the proposed play areas and Site access route, to accommodate new topsoil and sod, as well as excavation for new play equipment area. It shall amend and supplement CW 3110-R11 and CW 3170. It shall also cover the provision of rough grading to ensure play equipment area will meet CSA standards for surfacing depth, play equipment areas will drain, and to ensure the newly sodded areas will drain.
- E2.1.2 The demolition of the change building at Muriel Sage Playground is covered in section E3 – Building Demolition.
- E2.1.3 The City of Winnipeg will be removing the chain link fence at Muriel Sage Playground that is located along Muriel Street and around the wading pool.
- E2.1.4 The Contractor shall access the Muriel Sage Playground via Muriel Street in a location where the new walkway will be constructed. The Contractor is required to restore any sod damage as a result of their activity to prior construction condition. No additional payment will be made for installing new topsoil and sod beyond the costs indicated in the Unit Price Forms Items A8 and B18.
- E2.1.5 The Contractor shall access the Degraff Park via the existing road approach and asphalt paved driveway located on Degraff Bay.

- E2.1.6 All extraneous materials are to be removed from the Site and disposed of in a safe and legal manner. 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.
- E2.1.7 Work shall include but not be limited to the following:
- (a) Excavate, add clean fill if necessary, and rough grade excess soil to the limits shown on Drawings to the depths necessary to achieve finish grade for:
 - (i) Subsurface drainage and adequate safety surfacing.
 - (ii) Remove the existing sod shown within the limit of new sod and grading to a 75 mm depth below the new finish grade elevations.
 - (iii) Removal existing sand safety surfacing to 200 mm depth below existing grade
 - (iv) Where existing asphalt paving is shown to be removed, the Contractor shall remove the asphalt paving and all granular base to a maximum 300 mm depth. Any gravel located below the 300 mm depth may be retained. The Contractor will have to sawcut and remove two small areas of concrete paving outside the two doors on the washroom building.
 - (v) Protection of existing trees and sod outside the new construction area.
- E2.2 Construction Methods
- E2.2.1 Excavation includes the removal of existing surface vegetation and sod to the limit of new Site works including the access route. 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.
- E2.2.2 Do not disturb existing surrounding trees, sodded areas shown to remain, or existing paving shown to remain.
- E2.2.3 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.
- E2.2.4 Contractor must coordinate with the Contract Administrator to ensure all removals have occurred.
- E2.2.5 Excavation should be coordinated with the installation of play equipment, surfacing and sodding so as not to leave open excavation areas subject to ponding water. The new swing area at Degraff Park will have to be installed at a higher elevation to allow the underground Multi-Flow drainage pipe to gravity flow to a ground emitter.
- E2.2.6 Where fill is required to bring the subgrade up to the proper subgrade elevation use compacted clay fill, sloped to match the finish grade elevations. Fill below newly sodded areas shall be installed to a 75 mm depth below finish grade elevations and fill below wood fibre areas for the swings shall be installed to a 300 mm depth below finish grade elevations.
- E2.3 Method of Measurement and Basis of Payment
- E2.3.1 Method of Measurement shall be as follows:
- (a) General site demolition, excavation, rough grading, and Site access restoration shall be measured on a lump sum basis for:
 - (i) Item A1: "General site demolition, excavation rough grading, for old swing area" on Form B: Prices.
 - (ii) Item B12: "General site demolition, excavation, and round grading : remove existing asphalt paving, vertical culvert, and old safety sand surfacing" on Form B: Prices.
 - (b) Basis of Payment shall be as follows:

General site demolition, excavation, rough grading, and Site access restoration will be paid for on a Lump Sum Basis on Form B: Prices. The amount to be paid for 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.

E3. BUILDING DEMOLITION

E3.1 General Description

- E3.1.1 This specification shall cover the demolition of the existing washroom building at Muriel Sage Playground, disconnection of the electrical services, and the capping of the old sewer line.
- E3.1.2 The Contractor is responsible to obtain and pay for all City Permits required, and to perform all Work in accordance with City of Winnipeg Standards, and local electrical laws.
- E3.1.3 All extraneous materials are to be removed from the Site and disposed of in a safe and legal manner. 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.
- E3.1.4 Work shall include but not be limited to the following:
- (a) Contractor to completely remove above ground building structure, located above the existing concrete floor.
 - (b) Contractor to disconnect hydro service to building at hydro meter location on wood pole, capping/plugging old electrical line penetration into hydro meeting, to local electrical codes. The existing hydro meter and electrical service to the pole mounted light is to be retained.
 - (c) Contractor to excavate down to existing sewer line outside building, sever line and cap line prior to connection to main sewer line to Waterworks and Waste Standards...

E3.2 Construction Methods

- E3.2.1 The existing hydro service to the washroom building is to be removed by a qualified license electrician and to local electrical codes. The conduit and wiring to the building is to be removed at the hydro meter location, and the old conduit opening seal off with an electrical plug.
- E3.2.2 The existing sewer line is to be excavated and severed from the main sewer line which is to remain. The Contractor shall cap off the sewer line which connects to the main sewer line to Waterworks and Waste Standards, to prevent contaminants from entering the pipe. The contractor shall install a minimum 900 mm depth of sand over the sewer line which is capped off and to remain. Clay fill from the original excavation is then to be backfilled in maximum 300 mm compacted lifts to minimum 95% Modified Proctor Density.
- E3.2.3 The entire wood framed building is to be removed including all above concrete slab plumbing fixtures, electrical conduits and wiring, wood framing, metal anchors, etc.
- E3.2.4 The existing concrete floor and upturn foundation walls are to remain and be protected. The existing two exterior concrete landings are to be removed by completely saw cutting through the slabs, to sever them from the main building floor.
- E3.2.5 The existing concrete upturn, which the building walls rest on, are to be retained and as such must not be damaged. The Contractor shall sawcut any metal anchors which secure the wood walls to the floor and grind off any metal anchors flush with the concrete to remove any sharp edges. Upon removal of the building any concrete chips in the upturn portion of the floor is to be filled with a masonry grout. The horizontal surface only of the concrete upturn is to be sandblasted to remove any paint residue or stain marks, as it will be visible once the patio is constructed.

- E3.2.6 There are approximately six (6) sewer drains located in the floor and the sewer pipe shall be removed to be flush with the top of the existing concrete floor. One porcelain urinal is embedded in the concrete floor, and will have to also be removed to at least the top of the concrete floor.
- E3.2.7 All sewer lines shall be plugged with either concrete or hydraulic cement to a minimum 150 mm thickness to prevent future settlement into the pipe. Prior to installing the plug stuff rags or Styrofoam plugs to support the concrete or cement until it cures.
- E3.2.8 The top of the sewer pipe shall than be covered with a 20 gauge thickness of galvanized metal, size as noted on drawing 2-L4.
- E3.3 Method of Measurement and Basis of Payment
- E3.3.1 Method of Measurement shall be as follows:
- (a) Demolition of existing washroom building and disconnection of electrical service to the building and disconnection of the sewer line shall be measured on a lump sum basis for:
 - (i) Item B10: "Demolish existing building to concrete floor, and disconnect electrical service to building" on Form B: Prices.
 - (ii) Item B11: "Excavate, sever and cap off old sewer line, and backfill" on Form B: Prices.
 - (b) Basis of Payment shall be as follows:

Demolition of the building, disconnection of the electrical and sewer service will be paid for on a Lump Sum Basis on Form B: Prices. The amount to be paid for 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.

E4. PLAY EQUIPMENT

- E4.1 This specification shall cover the supply and installation of the Play Equipment as listed below and specified herein for the two Sites.
- E4.2 The Contractor is made aware the play equipment is to be installed within the existing concrete wading pools at each Site, which shape and size is showing on drawing detail 1-L2, L3, and 3-L4. The depth of the two pools varies and is shown on drawing L3.
- E4.3 The method of installation for the Play Equipment on these Sites shall be a ground surface metal stringer system, in which a series of metal stringers are welded to the posts of the Play Equipment, and thus the Play Equipment floats on top of the level granular surface, rather than being installed into poured in placed concrete footings. The metal stringer support system must be designed and approved by the playground equipment manufacturer. Prior to authorizing acceptance of anchoring method the Contractor will have to provide documents from the play equipment manufacturer that they have designed and approved the system of anchoring. The City will also consider systems whereby the posts can be bolted to the metal ground anchors.**
- E4.4 The preferred post material is aluminum, however steel posts will be accepted provided they have been factory finished and powder coated. The Bid Submission shall clearly show and identify if the posts are aluminum or steel.
- E4.5 The posts must be capable of draining water at their base and as such shall have a minimum of two (2) 12 mm diameter drainage holes located on opposite side of the posts where they are fastened to the metal ground beams.
- E4.6 The play structure for both sites may be the same, and is the preferred system, as opposed to different structures, in order to more easily evaluate the Bid Submissions. However, the two structures will probably have to be flipped in plan view, to allow a better relationship to obtain

Universal Design Principle access to the structures as the Muriel Sage site will be approached from the east and the Degraff Park site approached from the west. The Bidders shall clearly show on their respective site plans where the play structure will be located in relationship to the surrounding park area and walkway approaches to the play spaces.

- E4.7 The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work according to the drawings and specifications.
- E4.8 The Contractor shall obtain all approvals including permit if required
- E4.9 Play Area:
- (a) All the play equipment shall be located within the wading pool area, and the Bidder shall maximize the use of the entire space within the wading pool, installing independents if possible, where the space permits to fill in any voids. The main playstructure shall be the focus of the Submission and be designed for ages 2 -12.
 - (b) Independent play components are not required, but their use is encouraged to increase play value, and to maximize the use of the site area.
 - (c) The swings are to be located in the general areas shown on drawing details 1-L2 and 3-L4.
 - (d) There is no overall theme for the play areas, and Bidders are free to choose their own theme if desired.
 - (e) The play structure should be designed to maximize the amount of use by the age 2-5 and age 5-12 trying to separate the area of use within the one or multiple structures. The use of large standing platforms should be avoided, however the age 2-5 section of the play structure shall include some level surfaces for the children to stand on.
 - (f) The Age 2-5 play equipment on the structure should be orientated towards the walkway approach to the play structure to allow for better views and monitoring of the younger user group.
 - (g) The design submission shall be evaluated as per B17.
 - (h) Proposal may include independent play components not requiring safety surfacing, outside of or along the edge of the wading pool area.
- E4.10 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.
- E4.11 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) Talk Tubes;
 - (e) Barrel rollers; and
 - (f) Large number of plastic components.
 - (g) Brightly coloured hoods or roofs
- E4.12 Components which are generally not accepted but may be considered are the following:
- (a) Cable rides;
 - (b) Sand diggers;
 - (c) Lightly coloured hoods or roofs.
- E4.13 Play structure Equipment
- E4.13.1 General Description

- (a) Play equipment shall be installed within the wading pool areas as shown on the attached drawing detail 1-L2 and 3-L4. The play equipment and their safety zones should be sized to fill and maximize the full area available within the wading pool limits. Efficiency and good use of space will be considered in the evaluation of submissions, particularly layouts and orientations which allow good supervision of the Age 2-5 play equipment.

E4.13.2 Materials

(a) Posts / Caps

- (i) All posts shall be a minimum 5" O.D. round or 4" square tubing.
- (ii) 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.
- (iii) 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. The bottoms of all posts must have drain holes to allow moisture to escape.
- (iv) 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).
- (v) 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.

(b) Decks (if applicable)

- (i) 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'.

(c) Clamping System

- (i) 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.

(d) Handrails, Safety Rails and Handloops (if applicable)

- (i) All handrails, safety rails and hand-loops shall be fabricated using a minimum of 15/16" (24mm) O.D. with .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.
- (ii) 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.

(e) Hardware

- (i) 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.
- (ii) All necessary hardware shall be provided.

(f) Poly Components

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

(g) Slides (if applicable)

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

- (h) Each playstructure shall have kick plates and hand loops as required to meet the most recent Canadian Standards Association Standards.

E4.13.3 Installation

- (a) Play equipment shall be installed as per manufacturer's specifications and in accordance with the most recent Canadian Standards Association Standard.
- (b) **The method of installation for the Play Equipment on these Sites shall be a ground surface metal stringer system as previously indicated in section E4.3.**
- (c) All posts and other vertical items shall be plumb and true to vertical, if so designed.
- (d) All decks shall be level, if so designed.

E4.14 Independent Components

E4.14.1 General Description

- (a) The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work according to the specifications.
- (b) This specification shall cover the supply and installation of Independent Components as specified herein.
- (c) Independent Components may be installed as the proposed budget will allow to maximize the use of the space.

E4.14.2 Materials

- (a) All materials shall be structurally sound and suitable for safe play. Durability shall be ensured on all parts and materials.
- (b) There shall be a minimum (or no) amount of hollow plastic components. Solid plastic is acceptable.
- (c) There shall be a minimum amount of solid elements which limit visibility through the Site.
- (d) Fasteners
 - (i) 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.
- (e) Finishes
 - (i) 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.
- (f) Slides
 - (i) 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 for stainless steel slides. If independent slide over 4' high is proposed, support posts must be minimum 5"O.D.
 - (ii) Tube (enclosed) slides and plastic spiral slides will not be accepted.

E4.15 Method of Measurement and Basis of Payment

E4.15.1 Method of Measurement shall be as follows:

- (a) Play Equipment shall be measured on a lump sum basis for:
 - (i) Item A2: "Supply and install new Age 2-12 play equipment" on Form B: Prices.
 - (ii) Item B13: "Supply and install new Age 2-12 play equipment" on Form B: Prices.

E4.15.2 Basis of Payment shall be as follows:

Play Equipment will be paid for at the Contract Unit Prices. The amount to be paid for shall be the total number of units including any independents, 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.

E5. SWING SET

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 The Contractor shall install one (1) 2 Bay swing set at each site in the general location shown on drawing detail 1-L2 and 3-L4. The Swing shall be installed as close as possible to the old wading pools, but far enough away to allow for the gravel walkways which connect to the swings to be sloped to meet accessibility standards and not exceed 5% slope (20:1).
- E5.1.3 The swing at Muriel Sage Playground will be able to be installed at a fairly low elevation, as the underground drainage pipe can be installed through the existing sewer manhole wall located a short distance away. The swing at Degraff Park will have to be installed at a higher grade level than surrounding ground to allow the underground drainage line to gravity floor to a ground emitter.
- E5.1.4 This specification shall cover the supply and installation of one (1) complete swing standards as specified herein for each site. Swing may be three leg or Arch leg.
- (a) One (1), Three Leg Heavy Duty Swing Frame, 2.4m (8ft.) high, 2-Bay, complete with Two (2) slash-proof rubber, enclosed baby seats and Two (2) slash proof rubber belt seats.. Heavy-duty chain, swing hangers and hammer locks / bolt links.

E5.2 Materials

- E5.2.1 Topbeam
- (a) All topbeams shall be fabricated from 3 1/2" O.D. 8 gauge (minimum), RS40 galvanized steel pipe with anti-wrap. All fabrication cuts, drill holes and weld joints shall be sprayed with a corrosion resistant coating.
- E5.2.2 Legs
- (a) All legs shall be fabricated from 2 3/8" O.D. 10 gauge, RS40 galvanized steel pipe. 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.
- 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 Baby (Bucket) Seats
- (a) All enclosed baby 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. Baby seats shall be fully enclosed to prevent slipping out and provide extra lower back support.

- E5.2.7 Belt Seats
- (a) All 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 Manufacturers specifications.
- E5.3.2 Top rail is to be level and posts securing anchored in concrete.
- E5.3.3 Swing seats shall not be installed until the protective surfacing (in accordance with E9) 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:
 - (i) Item A4: "Supply and install new Swing" on Form B: Prices.
 - (ii) Item B15 "Supply and install new Swing" on Form B: Prices.
- E5.4.2 Basis of Payment shall be as follows:

Swing Standard 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

E6. FOUNDATIONS

- E6.1 General Description
- E6.1.1 All swing posts, bases and anchors are to be set in concrete footings or piles to ensure stability and prevent frost heaving. Piles that may be approved includes a welded and secured railed system. Concrete to be used in Underground Works, is to be utilized in the installation of the concrete works for all below ground components. Play equipment located within the old pool basin must be mounted on metal stringers as per E4.3.
- 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 Play Equipment listed above and as shown on Form B: Prices.

E6.4.2 Basis of Payment shall be as follows:

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.

There shall be no payment for the maintenance kits.

E8. TIMBER EDGING

E8.1 General Description

E8.1.1 The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work according to the drawings and specifications.

E8.1.2 This specification shall cover the supply and installation of 2-tier timber edging to contain the wood fibre safety surfacing as per Drawing SCD 651A, for the swing locations of both sites, and as shown on Drawing 1-L2 and 3-L4. The Work will involve a 2 tier timber edging installed around all swing locations.

E8.2 Materials and Method

E8.2.1 Cap shall be Composite and solid such as Trex or substitute in accordance with B7, and shall not be treated. Colour of capping shall be light tan colour. Top edges of all exposed timbers shall have an 8mm (45°) chamfer. The composite cap shall be pre-drilled and screwed with two parallel screws at each end of the timber and at 600mm O.C. Tops of holes shall be tapered if required to allow for countersinking of all screw heads. All screws for securing cap to the pressure treated timber below shall be stainless steel, min. 50 mm lengths. Screw heads shall be countersunk the minimum necessary so as not to protrude above the cap, but not so deep as to hold water.

E8.2.2 All wood for the bottom rows 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 full length timbers used whenever possible, and a minimum length of 1200mm. All ends and cuts shall be treated with preservative before being secured.

E8.2.3 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.

E8.2.4 Turf shall be repaired as required around edging in accordance with City of Winnipeg Standard Specifications for Topsoil and Sodding.

E8.3 Method of Measurement and Basis of Payment

E8.3.1 Method of Measurement shall be as follows:

(a) Edging will be measured on a linear metre basis for:

- (i) Item A5: "Supply and install double layer timber edge to SCD-651A" ; on Form B: Prices
- (ii) Item B16 "Supply and install double layer timber edge to SCD-651-A" ; on Form B: Prices

(b) The Bidder must indicate for Item # A5 and #B16 on Form B: Prices the required quantity of units, dependant on the submission.

E8.3.2 Basis of Payment shall be as follows:

Timber edging will be paid for on a per lineal metre basis 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.

E9. PROTECTIVE SURFACING AND SUB-SURFACE DRAINAGE

E9.1 General Description

E9.2 This specification shall cover the supply and install of wood fibre safety surfacing, gravel base and associated sub-surface drainage.

E9.3 Wood Fibre Surfacing

E9.3.1 Description

- (a) This specification shall cover the supply and installation of Wood Fibre Surfacing within the Play Equipment Area and under the swing areas.
- (b) This specification shall cover the supply and installation of Wood Fibre Surfacing to drain externally as per Drawing SCD 650.
- (c) This specification shall cover the supply and installation of Multi-Flow Drainage and connection to the existing sewer manhole at Muriel Sage Park or ground emitter at Degraff Park, as per Drawing SCD-659.

E9.3.2 Materials

(a) Wood Fibre product shall be either Zeager Woodcarpet or Fibar FibarSystem 200 or 300 products or substitute in accordance with B6.

(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 under swings and ends of slides.
- (c) Granular base for below wading pool engineered wood safety surfacing to be 19 mm diameter, clean crushed limestone regardless of which wood fibre product is used.
- (d) Geotextile/Filter Fabric to be Armtec 200, or product supplied by engineered safety surfacing manufacturer or in accordance with section B7 Substitutes.

E9.3.3 Construction Methods

- (a) Prior to installing the engineered wood safety surfacing in the wading pools, cover the bottom of the existing drainage inlet with a layer of filter fabric as shown on drawing details 1, 2 –L3. Fill bottom portion of pool with a layer of 19 mm dia. limestone to a level which will allow the play structure to be installed level and the bottom ground anchoring system below the required depth of safety surfacing
- (b) Install metal ground anchoring system on top of level granular base.
- (c) Install a layer of geotextile/filter fabric (subsurface drainage layer) over the gravel overlapping all seams by a minimum 400 mm.
- (d) Wood Fibre shall be installed within the play areas, as defined by the timber edging or existing wading pool concrete edge 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.
- (e) The installation of the Wood Fibre shall be done immediately after the play equipment has been installed.
- (f) 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.
- (g) Subsurface of swing locations shall be graded to drain to the existing sewer manhole at Muriel Sage Playground and to a ground emitter at Degraff Park. The cost for the underground drainage line, gravel base and surface repairs shall be included in the price for the wood fibre supply and installation.
- (h) 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.

E9.4 Method of Measurement and Basis of Payment

E9.4.1 Method of Measurement shall be as follows:

- (a) Protective Surfacing will be measured on a square metre basis for:
 - (i) Item A3: "Supply and install new engineered wood fibre safety surfacing, and underground drainage gravel for playstructure area".
 - (ii) Item A6: "Supply and install new engineered wood fibre safety surfacing, and Multiflow drainage to SCD 650 & 659 for swing area".
 - (iii) Item B14: "Supply and install new engineered wood fibre safety surfacing, and underground drainage gravel for playstructure area".
 - (iv) Item 17: "Supply and install new engineered wood fibre safety surfacing, and Multiflow drainage to SCD 650 & 659 and tie in drainage pipe to existing manhole for swing area".
- (b) **The Bidder must indicate for Item # A6 and # B17 on Form B: Prices the required quantity of units, dependant on the submission.**

E9.4.2 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 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.

E9.5 Sub-Surface Drainage

E9.5.1 Description

- (a) This Work shall consist of providing and placing a geo-composite prefabricated drain system as required in the design submission and 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.

E9.5.2 Material

- (a) Drainage pipe shall be Multi-Flow, or 100 mm perforated pvc pipe or approved substitute in accordance with B6. If Multi-Flow pipe use 150 mm (6") wide strips. The manufacturer will size and approve all fittings for use with Multi-Flow or approved substitute drainage pipe. . The Multi-Flow pipe may be installed horizontally.
- (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/ft2	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.

(b)

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.

(a) 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.

E9.5.3 Backfill for Trenches

- (i) Backfill will be coarse sand whose particle size is defined as less than 5% retained on a # 10 screen and less than 5% passing through a # 30 (US Std Sieve) In no case will more than 1% pass a # 60 screen.

E9.5.4 Methods

- (a) The layout of the sub-drain is to be marked on Site and approved by the Contract Administrator. Trenches shall be a min. 150mm in width. The trenches are to be installed to drain the water to the existing sewer manhole at Muriel Sage Playground and to a ground emitter at Degraff Park.
- (b) Sub-drain is to be laid on the prepared surface to facilitate cross movement of water. Sub-drain shall be installed below geotextile and in conformance with details provided. The sub-drain shall be sloped working from the low end of the side by the concrete City lane and sloping upwards towards the play area.
- (c) Contractor is to protect sub-drain 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 manufacturer's specification and to the satisfaction of the Contract Administrator.
- (f) Outlet ends of drainage pipe shall have the geotextile fabric trimmed off flush with the drainage pipe to prevent vandals from pulling the pipe out of the ground.

E9.6 Method of Measurement and Basis of Payment

E9.6.1 Method of Measurement shall be as follows:

- (a) Sub-surface Drainage shall be incidental to the measurement of Wood Fibre Surfacing listed above and as shown on Form B: Prices.

E9.6.2 Basis of Payment shall be as follows:

No separate payment shall be made for Sub-surface Drainage.

E10. TOPSOIL AND SOD

E10.1 Description

E10.1.1 This Specification shall amend and supplement the City of Winnipeg Specifications CW 3510-R9, CW 3520-R5 and CW 3540-R5. The Contractor shall install mineral sod and a minimum 75mm compacted thickness of topsoil, as required.

E10.1.2 The Contractor shall install topsoil and sod to the full limit of Site construction including repairs to the access road route. On the outside of the new timber edge the sod shall be sloped away from the timber edge at a minimum 1%, maximum 10% slope. Where new sod meets existing sod it shall be cut into the existing sod to meet flush.

E10.1.3 Thirty (30) day maintenance period on sod will commence at Total Performance and acceptance.

E10.2 Method of Measurement and Basis of Payment

E10.2.1 Method of Measurement shall be as follows:

(a) Sodding will be measured on a square metre basis for:

(i) Item A8: "Supply and install 75 mm depth new topsoil and sod" on Form B: Prices.

(ii) Item B18 " Supply and install 75 mm depth new topsoil and sod" on Form B: Prices.

(b) The Bidder must indicate for Item # A8 and # B18 on Form B: Prices the required quantity of topsoil and sod, dependant on the submission.

E10.2.2 Basis of Payment shall be as follows:

Sodding will be paid for at the Contract Unit Prices. The amount to be paid for shall be the total area, 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.

E11. SITE FURNITURE

E11.1 Description

E11.1.1 This specification shall cover the pickup and installation of new City supplied site furnishings: one (1) picnic table; two (2) benches inground mount and two (2) benches surface mount at Muriel Sage Playground and two (2) benches inground mount at Degraff Park.

E11.1.2 The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work as shown on Drawing 1-L2 and 3, 5 -L4 and specified herein. Supply includes pick up at the City of Winnipeg. There will be no charge for the supply of the benches and picnic table.

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.

E11.2.2 City Supplied Site Furniture shall be:

(a) Bench: Tache Composite Bench as per SCD-121, galvanize finished metal legs, inground mount or approved equal in accordance with B7. four (4) benches required.

(b) Bench: Tache Composite Bench as per SCD-121, galvanize finished metal legs, surface mount or approved equal in accordance with B7. two (2) benches required.

(c) Picnic Table: Tache Style Metal Frame Picnic Table as per SCD-122A, galvanized finished metal frame, Product #52501108 or approved equal in accordance with B7. One (1) picnic table required.

(i) Contact for Bench:

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
Tel: 204 986-5505
Email: ALennon@winnipeg.ca

(ii) Contact for Picnic Table:

Brian Mayer tel: 204 470-7747 e:mail BMayer@winnipeg.ca

E11.3 Construction Methods

- (a) All Work is to be located and installed in accordance with the Drawing 1-L2 and 3, 5 L-4 or approved Contractor Site Plan, SCD-121B, SCD-122A, and following manufacturer's instructions, using approved non-rusting, vandal resistant fasteners to ensure solid, durable, finished work suitable for the purpose intended. Fasteners and assembly hardware shall be incidental to the Work.
- (b) All furnishings and fixtures to be installed plumb and true to correct elevations and location, as directed by the Contract Administrator. The Contractor shall confirm proposed locations of all site furnishings with Contract Administrator prior to installation;
- (c) All furnishings and fixtures to be carefully handled so that no parts will be bent, broken or otherwise damaged. Hammering is prohibited;
- (d) Install as per manufacturer's instructions and the attached drawings.
- (e) The picnic table and surface mount benches shall be installed on top of interlocking paved patio stones by drilling through paving stones and into the existing concrete floor. Install with 9 mm x 150 mm long concrete wedge anchors. Hammer top of bolt to prevent removal.
- (f) Inground benches shall be installed in 300 mm dia. x 600 mm deep concrete filled holes. Form top of 150 mm of concrete in sonotube. Slope top of concrete to drain away from bench leg. Repair all asphalt damage as a result of drilling holes or installing benches.

E11.4 Method of Measurement and Basis of Payment

E11.4.1 Method of Measurement shall be as follows:

- (a) Site Furniture will be measured on a per unit basis for the following items:
 - (i) Item A9: "Install only Tache Bench – inground mount" on Form B: Prices;
 - (ii) Item B21: "Install only Tache Bench – inground mount" on Form B: Prices;
 - (iii) Item B22: "Install only Tache Bench – surface mount" on Form B: Prices;
 - (iv) Item B23: "Install only Tache Accessible Picnic Table – surface mount" on Form B: Prices;

E11.4.2 Basis of Payment shall be as follows:

- (i) Site Furniture 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.

E12. INTERLOCKING PAVING

E12.1 Interlocking paving shall be installed in accordance with CW 3330 Specification for Installation of Interlocking Paving Stones.

E12.2 Materials

- (a) Granular levelling base shall be 6 mm diameter crushed limestone.
- (b) Paving Stone shall be Barkman Concrete Heartland pavers, or approved equal as per section B7. Colour to be "Old Town"
- (c) Sand infill shall be Techniseal or approved equal as per section B7, HP Polymeric Sand, "Tan" colour.

E12.3 Construction Methods

- (a) Install granular levelling base on top of existing concrete floor foundation to a depth to suit that the interlocking pavers will meet flush with the top of the surrounding concrete edge. Centre of paved area to be built up with additional granular base to achieve 1% slopes shown on drawing detail 5-L4.
- (b) Install pavers tight against one another. Cut to fit around perimeter edges with maximum 6 mm space around edging.
- (c) Install full depth of polymeric sand between pavers, brushing in between crevices and lightly vibrating.
- (d) Provide heavy sweeping of surplus sand from surface of pavers. Lightly blow off any dust with leaf blower.
- (e) Apply a light mist of water to the surface and let cure 30 minutes. After 30 minutes provide heavier watering of the surfacing. Remove any sand which has run onto surface of pavers.
- (f) Remove all surplus materials from Site.

E12.4 Basis of Payment

- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a per square metre basis for the Items of Work listed below, which price shall include all costs for the granular levelling base, interlocking paving, and polymeric sand infill.
 - (i) Item No: A19: "Supply and install interlocking paved patio c/w granular bedding base" on Form B: Prices.

E13. GRANULAR PAVING

E13.1 This Specification shall amend and supplement City Specification CW 3110 Sub Grade, Su-Base, and Base Course Construction and CW-3150 Gravel Surfacing. 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 gravel paved walkways for both sites.

E13.2 All Work shall be installed as per drawing detail SCD -645 Park Path Crushed Limestone.

E13.3 Walk widths shall be minimum 1800 m.m. (1.8 metres) unless shown otherwise.

E13.4 Materials

- (a) Geotextile shall be non- woven, Armtec 200, or approved equal as per section B7.
- (b) Base course shall be 19 mm crushed limestone down, installed to 150 mm depth.
- (c) Surface shall be 6 mm diameter crushed limestone, installed to 25 mm depth

E13.5 Construction Methods

- (a) Install material to the depth and design elevations indicated on the Construction Drawings. Install only on clean unfrozen surface, properly shaped and compacted. Place the material using methods which do not lead to segregation or degradation of aggregate.
- (b) Contractor shall slope walkway up at maximum 5% (20:1) slope at swing locations to allow for accessibility of wheelchairs to swing areas. Contractor will have to ensure a sufficient length of walkway is installed between the new swing timber edging and adjoining paving the walk connects to, to stay within maximum grade slopes of slopes sections of walkways.
- (c) The finished surface is to be within plus or minus 10 mm of established grade and cross section, but not uniformly high or low. Any surface irregularities shall be corrected by loosening and adding or removing material until surface is within specified tolerance.
- (d) Walkways shall have a minimum 1% and maximum 2% cross slope installed on them so as not to pond water over the full walk width. Install cross slope in direction of drainage where existing land slopes.
- (e) Unless noted otherwise, the Contractor is responsible for making all sodding repairs, as a result of the granular paving installations, at no additional cost to the City.

E13.6 Basis of Payment

- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a per square metre basis for the Items of Work listed below, which price shall include all costs for the walkway excavation, geotextile, granular paving and sodding repairs..
 - (i) Item No: A7: "Supply and install granular walkway to new swing location to SCD 645" on Form B: Prices.
 - (ii) Item No: B20: "Supply and install new granular walkway to patio, playstructure, and swing location to SCD 645" on Form B: Prices.
- (b) **The Bidder must indicate for Item # A7 and #B20 on Form B: Prices the required quantity of units, dependant on the submission.**

E14. PLANT MATERIAL

E14.1 Description: This specification shall cover the supply and installation of nursery grown shrubs and shrub bed installation.

E14.2 Materials

E14.2.1 General

- (a) Shrubs shall be the size and variety noted on the Plant List shown on drawing L-4.
- (b) All nursery stock supplied shall be Canadian prairie nursery grown, of the species and sizes indicated on the drawings. Quality shall be in accordance with the latest "Guide Specification for Nursery Stock of the Canadian Nursery Trades Association".
- (c) Any nursery stock dug from native stands, wood lots, orchards or neglected nurseries and which have not received proper cultural maintenance as advocated by the Canadian Nursery Trades Association, shall be designated as "collected plants". The use of "collected plants" will not be permitted unless approved by the Contract Administrator.
- (d) The Contract Administrator reserves the right to inspect the plant material at their original source, and to instruct the supplier on root and branch pruning requirements.
- (e) Nomenclature of specified nursery stock shall conform to the International Code of Nomenclature for Cultivated Plants and shall be in accordance with the approved scientific names given in the latest edition of standardized Plant Names. The names of varieties not names therein are generally in conformity with the names accepted in the nursery trades.
- (f) Plants larger than specified may be used if approved by the Contract Administrator. The use of such plants shall not increase the Contract price.

- (g) All nursery stock shall be measured when the branches are in their normal position. Height and spread dimensions specified refer to the main body of the plant and not from branch tip.
- (h) All nursery stock shall be well branched, true to type, structurally sound, possess a well developed, undamaged root system and shall be free of disease, insect infestations, rodent damage, sunscald, frost cracks and other abrasion or scare to the bark. All parts of the nursery stock shall be moist and show live, green cambium when cut.

E14.2.2 Protection of Stock

- (a) All nursery stock shall be well protected from damage and drying out from the time of digging until the time of planting on site. All roots shall be cleanly cut; split roots are not acceptable.
- (b) Nursery stock shall be transplanted with care to prevent damage. Branches shall be carefully tied in such a manner so as not to break or damage trunks. Points of contact with equipment shall be padded. All nursery stock, which cannot be planted immediately upon arrival at the Site, shall be well protected to prevent drying out and shall be kept moist until commencement of planting.

E14.2.3 Topsoil Backfill Mix

- (a) Backfill mix shall be screened garden soil mixture of two parts black loam topsoil, one part milled peat moss and one part sharp sand.

E14.2.4 Wood Chip Mulch

- (a) Shall be standard tree limbs and leaves chippings, containing a maximum of 5% conifer branches.

E14.3 Construction Methods

E14.3.1 General

- (a) Shrub beds shall be excavated with vertical sides to the width shown on the drawings, and to a depth of 400mm. The excavated shrub bed shall be refilled with backfill mix (E14.2.3) to a 300mm depth, and covered with a 100mm depth of wood chip mulch. See detail 6-L4.
- (b) After topsoil has been placed and lightly compacted install shrubs with the top of the root ball 25 mm below the top of the topsoil. Provide 400 mm wide watering saucers around all shrubs.
- (c) Once shrubs and watering saucers have been installed, cover all exposed soil with a 100 mm depth of wood chip mulch. Rake wood chip mulch to level surface.

E14.4 Guarantee of Nursery Stock

- (a) The Contractor shall agree and guarantee to replace and replant any nursery stock found dead and/or in poor condition within one year from the date of the Certificate of Total Performance, at his cost. "Poor condition" shall be interpreted as meaning nursery stock on which branches are dying, or have not shown satisfactory growth of leaves. All replacement plants shall be installed within five (5) working days from the date of notification from the City, unless the City extends the time period, as a result of seasonal or climatic considerations.
- (b) All required replacements shall be by plants of at least the same size and species as specified, and shall be supplied and planted in accordance with the original drawings and Specifications, and the replaced material shall carry an additional one-year guarantee and maintenance period. All shrubs must be in a healthy conditional for a full one year before the warranty will be considered fulfilled.

E14.5 Plant Material Basis of Payment

- (a) The supply and installation of Plant Material will be paid for at the Contract unit price for each shrub, measured as specified herein, which price shall be payment in full including all costs for the shrub and all other items incidental to the Work included in this Specification.
 - (i) Item No: B25 "Supply and Install Pygmy Caragana shrubs" on Form B: Prices.
 - (ii) Item No: B26 "Supply and Install Mango Tango Potentilla shrubs" on Form B: Prices
 - (iii) Item No: B27 "Supply and Install Stella d'Oro Daylily perennials" on Form B: Prices

E14.6 Shrub Bed and Wood Chip Mulch Basis of Payment

- (a) Payment for Work specified under this section shall be paid for at the Unit Price, per square metre, which price shall be payment in full including all costs for the excavation of the shrub bed, installation of the topsoil, and installation of the wood chip mulch.
 - (i) Item No: B24: "Supply and install 300 mm depth topsoil planting beds c/w 100 mm depth wood chip mulch" on Form B: Prices