



**THE CITY OF WINNIPEG**

# **BID OPPORTUNITY**

**BID OPPORTUNITY NO. 121-2005**

**SITE IMPROVEMENTS TO FOUR PARK SITES IN ST. VITAL DISTRICT**

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# **PART B**

# **BIDDING PROCEDURES**

## **PART B - BIDDING PROCEDURES**

### **B1. PROJECT TITLE**

B1.1 SITE IMPROVEMENTS TO FOUR PARK SITES IN ST. VITAL DISTRICT

### **B2. SUBMISSION DEADLINE**

B2.1 The Submission Deadline is 12:00 noon Winnipeg time, May 11, 2005.

B2.2 Bid Submissions 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 GC:3.1, the Bidder may view the Site without making an appointment.

B3.2 The Bidder is advised that all sites are to be viewed prior to submitting a bid to familiarize the Bidder with the nature of the work area, and site access restrictions. Bidder shall note that existing trees are to be protected, and proximity of trees to the construction area may limit the type of construction equipment utilized. The Bidder is made aware the City Naturalist and Forestry Department will require financial compensation for trees or plant material damaged, by the construction area.

### **B4. ENQUIRIES**

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

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

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

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

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

### **B5. ADDENDA**

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

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

- B5.2.1 Addenda will be available on the Bid Opportunities page at The City of Winnipeg, Corporate Finance, Materials Management Branch internet site at <http://www.winnipeg.ca/matmgt>.
- B5.2.2 The Bidder is responsible for ensuring that he has received all addenda and is advised to check the Materials Management Branch internet site for addenda shortly before submitting his Bid.
- B5.3 The Bidder shall acknowledge receipt of each addendum in Paragraph 8 of Form A: Bid. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.

**B6. SUBSTITUTES**

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

B6.8 If the Contract Administrator approves a substitute as an “approved alternative”, any Bidder bidding that approved alternative shall base his Total Bid Price upon the specified item but may also indicate an alternative price based upon the approved alternative. Such alternatives will be evaluated in accordance with B14.

B6.9 No later claim by the Contractor for an addition to the Total Bid Price because of any other changes in the Work necessitated by the use of an approved equal or an approved alternative will be considered.

## **B7. BID SUBMISSION**

B7.1 The Bid Submission consists of the following components:

- (a) Form A: Bid;
- (b) Form B: Prices;

B7.2 The Bid Submission shall be submitted enclosed and sealed in an envelope clearly marked with the Bid Opportunity number and the Bidder's name and address.

B7.2.1 Samples or other components of the Bid Submission which cannot reasonably be enclosed in the envelope may be packaged separately, but shall be clearly marked with the Bid Opportunity number, the Bidder's name and address, and an indication that the contents are part of the Bidder's Bid Submission.

B7.3 Bid Submissions submitted by facsimile transmission (fax) or internet electronic mail (e-mail) will not be accepted.

B7.4 Bid Submissions shall be submitted to:

The City of Winnipeg  
Corporate Finance Department  
Materials Management Branch  
185 King Street, Main Floor  
Winnipeg, MB R3B 1J1

## **B8. BID**

B8.1 The Bidder shall complete Form A: Bid, making all required entries.

B8.2 Paragraph 2 of Form A: Bid shall be completed in accordance with the following requirements:

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

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

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

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

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

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

B8.4.2 All signatures shall be original.

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

## **B9. PRICES**

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

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

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

## **B10. QUALIFICATION**

B10.1 The Bidder shall:

- (a) undertake to be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba;
- (b) be responsible and not be suspended, debarred or in default of any obligation to the City;
- (c) be financially capable of carrying out the terms of the Contract;
- (d) have all the necessary experience, capital, organization, and equipment to perform the Work in strict accordance with the terms and provisions of the Contract;
- (e) have successfully carried out work, similar in nature, scope and value to the Work;
- (f) employ only Sub-Contractors who:
  - (i) are responsible and not suspended, debarred or in default of any obligation 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 Branch internet site at <http://www.winnipeg.ca/matmgt>); and
  - (ii) have successfully carried out work similar in nature, scope and value to the portion of the Work proposed to be subcontracted to them, and are fully capable of performing the Work required to be done in accordance with the terms of the Contract;
- (g) have a written workplace safety and health program in accordance with The Workplace Safety and Health Act (Manitoba);

- B10.2 The Bidder shall be prepared to 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 Sub-Contractor.
- B10.3 The Bidder shall provide, on the request of the Contract Administrator, full access to any of the Bidder's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Bidder's equipment and facilities are adequate to perform the Work.

### **B11. OPENING OF BIDS AND RELEASE OF INFORMATION**

- B11.1 Bid Submissions will be opened publicly, after the Submission Deadline has elapsed, in the office of the Corporate Finance Department, Materials Management Branch, or in such other office as may be designated by the Manager of Materials.
- B11.1.1 Bidders or their representatives may attend.
- B11.2 After the public opening, the names of the Bidders and their Total Bid Prices as read out (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 Branch internet site at <http://www.winnipeg.ca/matmgt>.
- B11.3 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 Branch internet site at <http://www.winnipeg.ca/matmgt>.
- B11.4 The Bidder is advised that any information contained in any Bid Submission 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.

### **B12. IRREVOCABLE BID**

- B12.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 9 of Form A: Bid.
- B12.2 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.

### **B13. WITHDRAWAL OF BIDS**

- B13.1 A Bidder may withdraw his Bid without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.
- B13.1.1 Notwithstanding GC:23.3, 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.
- B13.1.2 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.
- B13.1.3 If a Bidder gives notice of withdrawal prior to the Submission Deadline, the Manager of Materials shall:
- (a) retain the Bid Submission until after the Submission Deadline has elapsed;

- (b) open the Bid Submission 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 B13.1.3(b), declare the Bid withdrawn.

**B13.2** A Bidder who withdraws his Bid after the Submission Deadline but before his Bid has been released or has lapsed as provided for in B12.2 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.

## **B14. EVALUATION OF BIDS**

**B14.1** Award of the Contract shall be based on the following bid evaluation criteria:

- (a) compliance by the Bidder with the requirements of the Bid Opportunity (pass/fail);
- (b) qualifications of the Bidder and the Sub-Contractors, if any, pursuant to B10 (pass/fail);
- (c) Total Bid Price;
- (d) economic analysis of any approved alternative pursuant to B6.

**B14.2** Further to B14.1(a), the Award Authority may reject a Bid as being non-responsive if the Bid Submission 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 if the interests of the City so require.

**B14.3** Further to B14.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in his Bid Submission or in other information required to be submitted, that he is responsible and qualified.

**B14.4** Further to B14.1(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.

**B14.4.1** If there is any discrepancy between the Total Bid Price written in figures, the Total Bid Price written in words and the sum of the quantities multiplied by the unit prices for each item, the sum of the quantities multiplied by the unit prices for each item shall take precedence.

**B14.4.2** Further to B14.1(c), the Total Bid Price shall be the lump sum price shown on Form B: Prices.

- (a) If the lowest evaluated responsive Bid submitted by a responsible and qualified Bidder is within the budgetary provision for the Work, no adjustment will be made to the Total Bid Price; or
- (b) If the lowest evaluated responsive Bid submitted by a responsible and qualified Bidder exceeds the budgetary provision for the Work, the lump sum prices will be progressively adjusted, until the budget is met. All bids will be re-evaluated to determine the new Total Bid Price and low bidder.
- (c) The bidder is made aware each park site has its own budget and deletions will be made to each site if required to meet the budgetary constraints of each site.
- (d) The following lists the progressive order of deductions for each Site:
  - (i) St. David Place Park: Item 3, 7, and 6,
  - (ii) St. George Park: Item 19a, 19b, 19c, 19d, 19e, 19f, 19g, 17, and 13,
  - (iii) Eric Street Forest: Item 22, 21, 23 and 24,

(iv) Trafford Park: Item 31, 47a, 47b, 47c, 46, 45, 41, 42, 43, 48 and 49.

**B15. AWARD OF CONTRACT**

- B15.1 The City will give notice of the award of the Contract or will give notice that no award will be made.
- B15.2 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.
- B15.2.1 Without limiting the generality of B15.2, 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.
- B15.3 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.
- B15.4 Notwithstanding GC:4, the City will issue a Purchase Order to the successful Bidder in lieu of the execution of a Contract.
- B15.5 The Contract, as defined in GC:1.1, 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**

### **C1. GENERAL CONDITIONS**

C1.1 The *General Conditions for Construction Contracts* (Revision 2000 11 09) are applicable to the Work of the Contract.

C1.1.1 The *General Conditions for Construction Contracts* are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Branch internet site at <http://www.winnipeg.ca/matmgt>.

## **PART D - SUPPLEMENTAL CONDITIONS**

### **GENERAL**

#### **D1. GENERAL CONDITIONS**

- D1.1 In addition to the *General Conditions for Construction Contracts*, these Supplemental Conditions are applicable to the Work of the Contract.
- D1.2 The General Conditions are amended by striking out "The City of Winnipeg Act" wherever it appears in the General Conditions and substituting "The City of Winnipeg Charter".
- D1.3 The General Conditions are amended by striking out "Tender Package" wherever it appears in the General Conditions and substituting "Bid Opportunity".
- D1.4 The General Conditions are amended by striking out "Tender Submission" wherever it appears in the General Conditions and substituting "Bid Submission".
- D1.5 The General Conditions are amended by deleting GC:6.16 and GC:6.17. The City of Winnipeg is now within the jurisdiction of the Manitoba Ombudsman pursuant to The Ombudsman Act.

#### **D2. SCOPE OF WORK**

- D2.1 The Work to be done under the Contract shall consist of site improvements to four (4) separate park areas located in the St. Vital District.
- D2.2 The major components of the Work are as follows:
- (a) Drainage improvements to St. David Place Park
  - (b) Play equipment installation, c/w concrete edging and safety stone surfacing
  - (c) Installation of one light
  - (d) Installation of trees and shrubs
  - (e) Installation of granular and interlocking paving
  - (f) Miscellaneous chain link fence installation and wood bollards
  - (g) Installation of site furniture

#### **D3. CONTRACT ADMINISTRATOR**

- D3.1 The Contract Administrator is Ken Rech Landscape Architects Inc, represented by:
- Ken Rech  
Landscape Architect  
1480 Wellington Crescent, Winnipeg, Manitoba, R3N 0B3  
Telephone No. (204) 489-6616  
Facsimile No. (204) 489-6852
- 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.

#### **D4. CONTRACTOR'S SUPERVISOR**

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

## **D5. NOTICES**

- D5.1 Except as provided for in GC:23.2.2, all notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the Contractor shall be sent to the address or facsimile number identified by the Contractor in Paragraph 2 of Form A: Bid.
- D5.2 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the City, except as expressly otherwise required in D5.3, D5.4 or elsewhere in the Contract, shall be sent to the attention of the Contract Administrator at the address or facsimile number identified in D3.1
- D5.3 All notices of appeal to the Chief Administrative Officer shall be sent to the attention of the Chief Financial Officer at the following address or facsimile number:
- The City of Winnipeg  
Chief Administrative Officer Secretariat  
Administration Building, 3rd Floor  
510 Main Street  
Winnipeg MB R3B 1B9  
Facsimile No.: (204) 949-1174
- D5.4 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications required to be submitted or returned to the City Solicitor shall be sent to the following address or facsimile number:
- The City of Winnipeg  
Corporate Services Department  
Legal Services Division  
185 King Street, 3rd Floor  
Winnipeg MB R3B 1J1  
Facsimile No.: (204) 947-9155

## **SUBMISSIONS**

### **D6. INSURANCE**

- D6.1 The Contractor shall provide and maintain the following insurance coverage:
- (a) commercial general liability insurance, in the amount of at least two million dollars (\$2,000,000.00) all inclusive, with The City of Winnipeg being added as an additional insured, with a cross-liability clause, such liability policy to also contain a contractual liability, an unlicensed motor vehicle liability and a products and completed operations endorsement to remain in place at all times during the performance of the Work and throughout the warranty period;
  - (b) automobile liability insurance for owned and non-owned automobiles used for or in connection with the Work in the amount of at least two million dollars (\$2,000,000.00) at all times during the performance of the Work and until the date of Total Performance;
- D6.2 Deductibles shall be borne by the Contractor.
- D6.3 The Contractor shall provide the City Solicitor with a certified true copy or a certificate of insurance of each policy, in a form satisfactory to the City Solicitor, 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.

D6.3.1 The certificate of insurance for the commercial general liability insurance must clearly state "operations to include demolition work".

D6.4 The Contractor shall not cancel, materially alter, or cause each policy to lapse without providing at least fifteen (15) Calendar Days prior written notice to the Contract Administrator.

## **D7. PERFORMANCE SECURITY**

D7.1 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.

D7.1.1 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.

D7.2 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.

## **SCHEDULE OF WORK**

### **D8. COMMENCEMENT**

D8.1 The Contractor shall not commence any Work until he is in receipt of a Purchase Order from the Award Authority authorizing the commencement of the Work.

D8.2 The Contractor shall not commence any Work on the Site until:

- (a) the Contract Administrator has confirmed receipt and approval of:
  - (i) evidence that the Contractor is 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;
  - (ii) evidence of the workers compensation coverage specified in GC:6.14;
  - (iii) evidence of the insurance specified in D6;
  - (iv) the performance security specified in D7;
- (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.

D8.3 The Contractor shall commence the Work on the Site within seven (7) Working Days of receipt of the Purchase Order.

**D9. SUBSTANTIAL PERFORMANCE**

- D9.1 The Contractor shall achieve Substantial Performance within twenty five (25) consecutive Working Days of the commencement of the Work as specified in D8.
- D9.2 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.
- D9.3 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.

**D10. TOTAL PERFORMANCE**

- D10.1 The Contractor shall achieve Total Performance within thirty (30) consecutive Working Days of the commencement of the Work as specified in D8.
- D10.2 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.
- D10.3 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.

**D11. LIQUIDATED DAMAGES**

- D11.1 If the Contractor fails to achieve Total Performance in accordance with the Contract by the day fixed herein for Total Performance, the Contractor shall pay the City four hundred dollars (\$400.00) per Working Day for each and every Working Day following the day fixed herein for Total Performance during which such failure continues.
- D11.2 The amount specified for liquidated damages in D11.1 is based on a genuine pre-estimate of the City's losses in the event that the Contractor does not achieve Total Performance by the day fixed herein for same.
- D11.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

**D12. SCHEDULED MAINTENANCE**

- D12.1 The Contractor shall perform the following scheduled maintenance in the manner and within the time periods required by the Specifications:
- (a) Two year tree and shrub maintenance as specified in E33.;
- D12.2 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**

### **D13. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)**

D13.1 Further to GC:6.26, 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).

## **WARRANTY**

### **D14. WARRANTY**

D14.1 Notwithstanding GC:13.2, the warranty period shall begin on the date of Total Performance and shall expire one (1) year thereafter, except where longer warranty periods are specified in the respective Specification sections, unless extended pursuant to GC:13.2.1 or GC:13.2.2, in which case it shall expire when provided for thereunder.

D14.1.1 For the purpose of Performance Security, the warranty period shall be one (1) year.

D14.2 Notwithstanding GC:13.2, the Contract Administrator may permit the warranty period for a portion or portions of the Work to begin prior to the date of Total Performance if a portion of the Work cannot be completed because of unseasonable weather or other conditions reasonably beyond the control of the Contractor but that portion does not prevent the balance of the Work from being put to its intended use.

D14.2.1 In such case, the date specified by the Contract Administrator for the warranty period to begin shall be substituted for the date specified in GC:13.2 for the warranty period to begin.

**FORM H1: PERFORMANCE BOND**  
(See D7)

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 dated the

\_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, for:

BID OPPORTUNITY NO. 121-2005

SITE IMPROVEMENTS TO FOUR PARK SITES IN ST. VITAL DISTRICT

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)

\_\_\_\_\_  
(Name of Principal)

Per: \_\_\_\_\_ (Seal)

Per: \_\_\_\_\_

\_\_\_\_\_  
(Name of Surety)

By: \_\_\_\_\_ (Seal)  
(Attorney-in-Fact)

**FORM H2: IRREVOCABLE STANDBY LETTER OF CREDIT  
(PERFORMANCE SECURITY)**  
(See D7)

\_\_\_\_\_  
(Date)

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

RE: PERFORMANCE SECURITY - BID OPPORTUNITY NO. 121-2005  
SITE IMPROVEMENTS TO FOUR PARK SITES IN ST. VITAL DISTRICT

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

\_\_\_\_\_  
(Name of Contractor)

\_\_\_\_\_  
(Address of Contractor)

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

\_\_\_\_\_ Canadian dollars.

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

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

Partial drawings are permitted.

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

\_\_\_\_\_  
(Address)

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

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

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

\_\_\_\_\_  
(Date)

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

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

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

\_\_\_\_\_  
(Name of bank or financial institution)

Per: \_\_\_\_\_  
(Authorized Signing Officer)

Per: \_\_\_\_\_  
(Authorized Signing Officer)

## PART E - SPECIFICATIONS

### GENERAL

#### E1. APPLICABLE SPECIFICATIONS, STANDARD DETAILS AND DRAWINGS

- E1.1 *The City of Winnipeg Standard Construction Specifications* in its entirety, whether or not specifically listed on Form B: Prices, shall apply to the Work.
- E1.1.1 *The City of Winnipeg Standard Construction Specifications* is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Branch internet site at <http://www.winnipeg.ca/matmgt>.
- E1.1.2 The version in effect three (3) Business Days before the Submission Deadline shall apply.
- E1.1.3 Further to GC:2.4(d), Specifications included in the Bid Opportunity shall govern over *The City of Winnipeg Standard Construction Specifications*.
- E1.2 The following Drawings are applicable to the Work:

<u>Drawing No.</u>	<u>Drawing Name/Title</u>
L1	St. David Place Park – Site Plan and Drainage Improvements
L2	St. George Park – Site Plan and Details
L3	St. George Park – Miscellaneous Details
L4	Eric Street Forest – Site Improvements
L5	Trafford Park – Site Plans & Miscellaneous Details
L6	Trafford Park – Site Plans & Miscellaneous Details

#### E2. SCOPE OF WORK TO BE DELETED

- E2.1 The Contractor is made aware certain portions of the Work may be deleted from the Contract in order to meet the budgetary constraints. See section B14.4.2d.

#### E3. WORK BY OTHERS

- E3.1 The Contractor is made aware the City of Winnipeg Naturalist Department will be undertaking some work at the Eric Street Forest location. The work they will be undertaking is: Fabrication and installation of park and interpretive signage; installation of wood chip and log ramp areas.

#### E4. LAYOUT OF WORK

- E4.1 The Contractor shall set control lines and bench marks by means of stakes, buoys or marks and the Contractor shall make the completed Works conform to the lines and marks thus indicated. The Contractor shall furnish all other lines and levels required. The Contractor shall be responsible for the careful preservation of all stakes and marks. Care must be taken that the Contract Administrator be notified immediately of the disturbance of any such stakes or marks; the cost of correcting any errors arising out of neglect of the Contractor or his agent or his employees, to so notify the Contract Administrator shall be borne entirely by the Contractor, as well as the cost of replacing any disturbed stakes or marks.
- E4.2 The City of Winnipeg Survey Branch will inspect each site prior to construction commencing and verify all legal survey pins are in place and not damaged. Any damage to the pins by the Contractor, will have to be rectified to the satisfaction of the City of Winnipeg, and all associated costs paid for by the Contractor.

- E4.3 All layout Work shall be inspected and approved by the Contract Administrator prior to construction. Items indicated to be field are to be roughly located by the Contractor, and approved by the Contract Administrator. The Contract Administrator may also roughly lay out the shapes or locations of items, for further refinement to the shape by the Contractor.
- E4.4 Before commencing Work the Contractor shall satisfy himself as to the meaning and correctness of all stakes and marks and no claims shall be entertained by the City of Winnipeg on account of any alleged inaccuracies. If any error is suspected in the plans, specifications or the directions of the Contract Administrator, Work shall be discontinued until the errors are rectified, but no claims shall be made on account of any delay occasioned thereby.
- E4.5 All shapes laid out by the Contractor must be within the area allowance for all items shown in the Unit Price Forms.
- E4.6 All proposed tree planting locations shall be staked with minimum 610mm height vertical markers, and be approved by the Contract Administrator prior to excavating the tree pit.
- E4.7 The Contractor shall locate and protect all underground utilities prior to commencing construction.

## **E5. EXISTING SURVEY INFORMATION**

- E5.1 The site plan is based on drawing data supplied by the City of Winnipeg and supplemental field data supplied by Ken Rech Landscape Architects.
- E5.2 Survey grade elevations were undertaken by Michalenko Surveys in conjunction with Ken Rech Landscape Architects Inc.
- E5.3 Existing site photos are available in digital format for viewing. To see the photos contact the Contract Administrator.

## **E6. SITE ACCESS**

- E6.1 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.
- E6.2 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 thereto in the performance of the Work, the Contractor shall upon instructions from and to the satisfaction of the City thereof, either replace and repair such damage, whichever may be deemed necessary in the opinion of, and acceptable to, the City thereof 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.
- E6.3 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. 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.

- E6.4 Care shall be taken to protect existing trees and their root systems from damage, compaction, and contamination resulting from construction to the satisfaction of the Contract Administrator. No heavy equipment shall be driven or parked on the area within the drip line of any trees.
- E6.5 Access to the Work areas shall be as noted below, unless approved otherwise by the Contract Administrator:
- (a) St. David Place Park: off of St. David Road, away from any existing trees. Contractor to repair access route damage at their own expense. The Contractor will not be allowed to Work with any machinery, except a walk behind trencher, within part of the site as shown on drawing L1, so as not to compact the soil around the existing trees.
  - (b) St. George Park: via the north public lane vehicle gate.
  - (c) Eric Street Forest: access to the corners of the site to install wood bollards, shall be via walking/people only, no vehicles or equipments. Wheel barrows and hand augers are permitted, however existing forest vegetation shall not be damaged.
  - (d) Trafford Park: via new park entrances or off public lane. Contractor responsible for obtaining sidewalk crossing permit and protecting the sidewalk. If access is off public lane Contractor to remove and reinstall existing chain link fence as required.

## **E7. PROTECTION OF EXISTING TREES**

- E7.1 The Contractor shall take the following precautionary steps to prevent damage from construction activities to existing boulevard trees, and trees within the site, within the limits of the construction area. If the Contractor requires further information on these specifications, contact the City of Winnipeg Forestry Branch at 986-2004.
- (a) For trees greater than 100 mm in diameter, attach wood strapping material having a minimum thickness of 25 millimetres and minimum length of 2440 millimetres around the tree trunks in a manner that will not harm the trees. Do not use nails or other fasteners that penetrate the tree trunk. The width of the strapping may be reduced to suit tree being protected. Length of strapping may be reduced to suit tree being protected as approved by the Contract Administrator.
  - (b) For trees less than 100 mm in diameter, install PVC safety fencing around the tree to a 2.0 metre radius complete with installation hardware, to adequately support the safety fence. The 2.0 metre radius safety fence may be reduced to suit the tree being protected as approved by the Contract Administrator.
  - (c) Operation of equipment within the dripline of the trees shall be kept to the minimum required to perform the Work. Equipment shall not be parked, repaired, refuelled; construction materials shall not be stored, and earth materials shall not be stockpiled within the driplines of the trees. The dripline of a tree shall be considered to be the ground surface directly beneath 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.
  - (d) Repair, replace and maintain tree protection materials during construction until such time no equipment will be working in the area.
  - (e) Remove safety fencing and strapping material without harming the trees as soon as the construction and restoration Work is complete.
- E7.2 Obtain approval from the Contract Administrator to excavate within 2.0 metres of a tree.
- E7.3 Excavate in a manner to minimize damage to the tree root systems. Keep exposed roots in excavations and trenches moist or shaded. If stockpiling of excavated soil material is required, stockpile in areas away from the tree roots if possible.

- E7.4 Prune exposed roots with equipment such as trencher, chain saws, root cutters or other methods acceptable to the Contract Administrator in a manner that will leave a neat, clean root end.
- E7.5 Take precautions to ensure tree limbs overhanging the Work area are not damaged by construction equipment. Contact the Forestry Branch for consultation or pruning of overhanging or damaged limbs and branches and other unanticipated problems with trees during the construction of the Works.
- E7.6 American Elm trees are not to be pruned between April 1<sup>st</sup> and August 1<sup>st</sup> and Siberian Elm trees between April 1<sup>st</sup> and July 1<sup>st</sup> of any year under the provisions of The Dutch Elm Disease Act.
- E7.7 The City of Winnipeg Naturalist Branch, also has authority for Natural stands of forested/brush/native grass areas, and may also instruct the Contractor on protective measures to protect the forests
- E7.8 Further to the Naturalist requirements the Contractor must set up a temporary orange safety fence to define the agreed upon Work area to ensure that additional damage does not occur to adjacent vegetation. Damage to vegetation beyond the defined Work area will result in damage charges of \$10.00 per square metre. Any damage to established trees will result in additional charges based on the Forestry Branch assessment of the tree valuation.
- E7.9 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 Forestry Branch. Damages must be repaired by an Individual with a Manitoba Arborist Licence or by the Forestry Branch.
- E7.10 The Forestry Branch will remove and replace any trees deemed to have died or that are dying due to damage from carelessness during construction. Removal and replacement costs will be determined by size, market price of the largest transplantable tree of same or different species and may include appraised value of the existing tree as determined by current International Society of Arboriculture evaluation procedure presently used by the Forestry Branch in conjunction with the City's Claims Branch. Estimated replacement cost of a 250 and 600 millimetre diameter American Elm, on a boulevard, based on an appraised value, is approximately \$4,700.00 and \$27,000.00 respectively.
- E7.11 Protection of existing trees, repair of trees and pruning of damaged limbs will not be measured for payment and is to be included with the Underground or Surface Works. Removal and replacement of existing trees by the Forestry Branch deemed to have died or that are dying due to damage from carelessness during construction, will be at the Contractor's cost. The Contractor will be invoiced for the cost, or have the cost deducted from any payments owing.

## **E8. DEMOLITION AND SALVAGE**

- E8.1 In general terms the scope of Work under and demolition/legal disposal and salvage phase of Work is as listed below for each site.
- E8.2 St. David Place Park:  
(a) Removal and legal disposal of 3 existing benches
- E8.3 St. George Park:  
(a) Removal of one existing swing and granular base, including legal disposal of surplus materials. Seats and chains to be salvaged and delivered to City of Winnipeg storage yards.  
(b) Removal of small sections of existing chain link fencing to allow construction of new entrances.

- (c) Removal of sand areas in former long jump area.
- (d) Removal of a few shrubs as shown on the drawings.

**E8.4 Eric Street Forest:**

- (a) Removal of low brush cover at Eric Street entrance. One dead tree lying on its side to also be removed.

**E8.5 Trafford Park:**

- (a) Removal of one existing swing and granular base. Seats and chains to be salvaged and delivered to City of Winnipeg storage yards.
- (b) Removal and legal disposal of all existing wood play structures.
- (c) Removal and legal disposal of sections of existing chain link fencing by two new entrances and most westerly section of fence running in north/south direction.
- (d) Removal of one existing tree and two additional tree stumps to 300 mm below grade.
- (e) Removal of one sand box and associated sand areas.
- (f) Salvaging of two existing picnic tables for relocation within the park.

**E8.6** The cost for the demolition Work or salvaging shall be included in the lump sum cost of the related site, and as identified in the Unit Price Forms.

**E8.7 Basis of Payment**

- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a lump sum basis for the Items of Work listed below, which price shall include all costs for demolition and legal removal of the product from each site. The cost for salvaging the two (2) picnic tables is to be included in the re-installation cost of item E18.
  - (i) St. David Place Park, item No: 3 – Remove 3 benches and repair sod
  - (ii) St. George Park, item No: 8 – Demolition, Salvage, swings, shrubs, and minor fencing sections
  - (iii) Eric Street Forest, item No: 20 – Demolition, remove brush and tree
  - (iv) Trafford Park, item No: 29 – Demolition: remove one tree and three stumps, chain link fencing, swing, and salvage picnic tables.

**E9. SITE RESTORATION**

**E9.1** Total Performance of the Work shall not be attained until the Contractor has cleaned up the Site and has removed all plant, 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. No separate payment will be made for this Work.

**E10. GRANULAR PAVING**

**E10.1** This Specification shall amend and supplement City Specification CW 3110-R7 Sub Grade, Su-Base, and Base Course Construction and CW-3150-R4 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 Trafford and St. George Park, and as a base course for interlocking paving at Trafford Park only.

- E10.2 New granular walkway paving shall consist of a 125 mm subbase depth of 39 mm diameter crushed limestone down, a 50 mm base depth of 19 mm diameter crushed limestone down, with a 25 mm capping depth of 6 mm diameter limestone dust.
- E10.3 Granular base for interlocking paving shall consist of a 200 mm depth of 19 mm diameter crushed limestone down, with a 12 mm capping of levelling sand.
- E10.4 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.
- E10.5 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.
- E10.6 Walkways shall have a minimum 2% and maximum 3% 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.
- E10.7 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, granular paving, associated sodding repairs, and the thirty day sod maintenance period. No separate payment will be made for sodding repairs for the walkway installation. Only areas shown as new sod on the drawings will be paid for additionally under the sodding specifications.
    - (i) St. George Park, item No: 9 – Granular paving and associated sodding repairs
    - (ii) Trafford Park, item No: 30 – Granular paving and associated sodding repairs

## **E11. INTERLOCKING PAVING**

- E11.1 Interlocking paving shall be installed in accordance with CW 3330-R3 Specification for Installation of Interlocking Paving Stones.
- E11.2 The Contractor is made aware the interlocking paving at Trafford Park may be deleted, and if it is deleted granular paving will be installed. The granular paving quantities of the Unit Price forms, allows for the area of gravel paving below the interlocking paving.
- E11.3 Type, size, colours and paving pattern are shown in the Details on the drawings. All paving stones shall be as manufactured by Barkman Concrete.
- E11.4 Edging for paving shall be “Snap Edge” or poured in place concrete as noted on the drawings.
- E11.5 Install granular sub-base for interlocking paving a minimum 150mm past all edges of the paving stones, to permit the snap edge to be installed on a compacted granular base.
- E11.6 Trafford Park Interlocking Paving Basis of Payment
- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a per metre basis for the Items of Work listed below, which price shall include all costs for the supply and installation of the sand levelling base, interlocking paving and Snap Edge only. The granular sub-base for these areas is included in the granular walk paving quantity allowances.

- (i) Trafford Park, item No: 31 – Interlocking paving: pavers and sand base only

**E11.7 Eric Street Forest Interlocking Paving Basis of Payment**

- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a per metre basis for the Items of Work listed below, which price shall include all costs for the supply and installation of the granular sub-base, sand levelling base, and interlocking paving.
  - (i) Eric Street Forest, item No: 27 – Interlocking paving: pavers, sand base, and granular sub base

**E12. WOOD BOLLARDS**

E12.1 This Specification shall cover the supply and installation of the wood bollards as shown in Detail 11-L4 and located at Eric Street Forest Drawing L4.

E12.2 The Bidder is made aware the wood bollards may be deleted if necessary to meet the budgetary constraints.

**E12.3 Materials**

- (a) Granular backfill shall be 6mm diameter crushed limestone.
- (b) Wood posts shall be green ACQ pressure treated pine, size shown on drawings.

E12.4 Install bollard in 300mm diameter holes, minimum 900mm below grade, and backfill with compacted granular material in 150 mm lifts, installed completely up to finish grade.

E12.5 Installation of wood bollards must be done by hand held excavation equipment for interior site locations where the excavating equipment can not sit on the City boulevard sod or sidewalk paving. Any auguring equipment must not damage the existing trees and shrubs. Excavated materials are to be removed by wheelbarrow, for interior site locations. The wood bollards along Beliveau Road sidewalk may be dug with a Skid-Steer mounted type of auger, only if the Skid-Steer wheels remain on the City walk. Plumb top of posts level.

E12.6 Cost for bollards is to be included in the Unit Price Forms and will be paid for on a per unit basis and shall include all costs for the wood bollard, excavation, backfill and removal of excavated material.

**E12.7 Basis of Payment**

- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a per unit basis for the Items of Work listed below, which price shall include all costs for the wood bollard, excavation, backfill and removal and legal disposal of excavated material.
  - (i) Eric Street Forest, item No: 21 – Wood Bollards

**E13. WOOD FENCING**

E13.1 This Specification shall cover the supply and installation of the wood fencing as shown in Details 6 & 9-L4 and located at Eric Street Forest

**E13.2 Materials**

- (a) Granular backfill shall be 6mm diameter crushed limestone.
- (b) Wood posts shall be green ACQ pressure treated pine, size shown on drawings.
- (c) All lag bolts and fasteners shall be rustproof and the size noted on the drawing.

- E13.3 Install posts in 300mm diameter holes, minimum 1000mm below top of paving stone grade, and backfill with compacted granular material, installed up to 75 mm below finish grade.
- E13.4 Install wood posts prior to installing concrete edge.
- E13.5 Shape wood posts and rails as shown on the drawing
- E13.6 Basis of Payment
- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a lump sum basis for the Items of Work listed below, which price shall include all costs for the wood posts/rails, excavation, granular backfill and removal of excavated material
    - (i) Eric Street Forest, item No: 25 – Wood Fencing

#### **E14. MULTI-FLOW DRAINAGE PIPE**

- E14.1 General: This specification shall cover the supply and installation of a shall buried drainage system at St. David Place Park as shown on drawing L-1..
- E14.2 Drainage pipe shall be Multi-Flow 150 mm size. All fittings shall be size to fit 150 mm pipe, and as manufactured by Multi-Flow.
- E14.3 Sand backfill shall be very coarse sand, approximate 1.0 to 2.0 mm diameter particle size.
- E14.4 Location of Multi-Flow drainage lines is shown on the drawings. Contractor to modify location of pipe on site, such that it is installed in existing low areas subject to the approval of the Contract Administrator. Locate pipe as far away as possible from existing trees to prevent damage to tree roots. Contractor to stay within quantity of pipe identified in Unit Price Forms.
- E14.5 Excavate trench to 100 mm width, and to the invert depth as shown on Drawings. Remove all excavated material, via shovelling off the grass, and remove by wheelbarrow for areas around existing trees, and as noted on drawing 1-L1.
- E14.6 Install Multi-Flow drainage pipe in centre of trench, using Multi-Flow centering device. Backfill balance of trench to 50 mm below finish grade for areas to be seeded and 100 mm below finish grade for areas to be sodded. Install 50mm depth of topsoil and seed to all trenched areas where sod will not be installed. Topsoil and seeding covering of trench cost is considered to be incidental and shall be included in lineal metre cost of Multi-Flow drainage pipe unit cost.
- E14.7 Basis of Payment
- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a per lineal basis for the Items of Work listed below, which price shall include all costs for trenching, drainage pipe, sand backfill, and topsoil and seeding repairs.
    - (i) St. David Place Park, item No: 2 – Multi Flow drainage pipe

#### **E15. CONNECTION TO LAND DRAINAGE SEWER**

- E15.1 The Contractor shall connect the Multi-Flow drainage pipe at St. David Place Park to the City of Winnipeg land drainage sewer, as shown in details 5 & 6-L1.
- E15.2 Basis of Payment
- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a lump sum basis for the Items of Work listed below, which price shall include all costs for tree protection, excavation, sewer tie, backfilling and compaction.

Sodding repairs outside the limits shown on the drawing are also to be included in the lump sum cost if greater disturbance to the area is required.

- (i) St. David Place Park, item No: 1 – Land Drainage Sewer Connection.

## **E16. ELECTRICAL WORK AND LIGHTING**

E16.1 The Contractor shall supply and install one light including all hydro connections and servicing at Trafford Park, as shown in details 7, 8, & 9-L6.

E16.2 Contractor responsible to repair all sod damage, where new sod is not shown to be installed, with new sod to CW standards.

E16.3 Basis of Payment

- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a lump sum basis for the Items of Work listed below, which price shall include all costs for Manitoba Hydro contribution costs, new service, trenching and sod repairs, light standard, concrete base, and all other Work required to allow the light to operate per local electrical codes.

- (i) Trafford Park, item No: 34 – Light and electrical service.

## **E17. INSTALLATION OF CITY SUPPLIED SITE FURNITURE**

E17.1 This specification will cover the installation only of site furniture, supplied by the City of Winnipeg. The City of Winnipeg will supply the site furnishings at no cost to the Contractor.

E17.2 The following site furniture are to be picked up at the City of Winnipeg storage yard, 215 Tecumseh. The Contractor shall contact Murray, 986-5504 to arrange pick-up.

- (a) One (1) Expanded Metal Waste Receptacle – SCD 106 to be installed at Eric Street Forest. City to supply short length of chain and padlock to secure the waste receptacle.
- (b) One (1) Ornamental inground mount metal slat (push in) Waste Receptacle, to be installed at Eric Street Forest

E17.3 The expanded metal waste receptacle is to be chained to a wood bollard at the north east corner of the site. Secure chain to post with 6 mm dia., 50 mm long rust proof lag bolt, c/w washer.

E17.4 The inground mount waste receptacle is to be installed on top of a 50 mm inside diameter, schedule 40, galvanized pipe (see CW 3550-R2 for pipe specifications), pushed 1220 mm below grade. Contractor to confirm mounting height of waste receptacle with Contract Administrator prior to installing pipe footing. Secure two sections of pipe together with 9mm diameter, rustproof, vandal proof bolt installed through pipe. Confirm bolt type with contract administrator prior to installation

E17.5 Basis of Payment

- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a per unit price basis for the Items of Work listed below, which price shall include all costs for picking up the waste receptacles, and installation.

- (i) Expanded Metal Waste Receptacle as shown in Unit Price Item no: 23.
- (ii) Inground Mount Slat Waste Receptacle as shown in Unit Price Item no: 24

## **E18. SUPPLY AND INSTALLATION OF SITE FURNITURE**

E18.1 This specification will cover the salvage and reinstallation of two existing picnic tables and associated granular bases, and supply and installation of new benches at the various park sites. The Bidder is made aware the quantity of new benches may vary depending on budgetary constraints.

### **E18.2 Materials**

- (a) Benches with backs shall be Cascades Re-Plast 6' (1830mm) Deluxe Contour Bench, model 230 C inground mount, grey frame, grey lumber colour. Maximum quantity required ten (10).
- (b) Bench without back shall be Cascades Re-Plast 6' (1830mm) Contour, Straight Bench, model ST0 C inground mount, grey frame, grey lumber colour. Maximum quantity required one (1).
- (c) Concrete shall be in accordance with C.W. 2160-R6 Concrete for Underground Structures and Works.
- (d) Anchors for picnic tables shall be Duckbill Anchor Model 68-ATI as manufactured by Foresight Products, LLC Tel: 1-800-325-5360.
- (e) Granular base shall be 6 mm diameter crushed limestone down, installed to the depths shown on the drawings.

E18.3 Contractor shall salvage two (2) existing picnic tables at Trafford Park for reinstallation to locations shown in detail 1-L5.

E18.4 Picnic tables shall be installed on gravel base to shape shown on the drawing. Secure picnic table to grade with two duckbill anchors per picnic table.

E18.5 Install new benches in concrete filled holes, minimum 400mm diameter by 600mm depth. Top of concrete shall be 100mm below top of new granular paving. Slope top of concrete to drain away from post.

E18.6 Provide 150 mm depth granular paving below all bench and picnic table locations as shown on the drawings. Top of granular paving to be flush with sod.

### **E18.7 Picnic Table Basis of Payment**

- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a unit price basis for the Items of Work listed below, which price shall include all costs for salvaging the tables, supply and installation of granular paving, and supply and installation of two (2) duckbill anchors per table
  - (i) Trafford Park, item No: 45 – Reinstall picnic tables c/w granular base.

### **E18.8 Bench Basis of Payment**

- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a per unit basis for the Items of Work listed below, which price shall include all costs for the bench, installation of the bench, including the granular pad for benches remotely located in landscaped areas.
  - (i) St. David Place Park, item No: 6 – Bench with back and granular base.
  - (ii) St. George Park, item No: 13 – Bench with back.
  - (iii) Eric Street Forest, item No: 22 – Bench with back.
  - (iv) Trafford Park, item No: 48 – Bench with back.
  - (v) Trafford Park, item No: 49 – Bench without back.

## **E19. CHAIN LINK FENCING**

- E19.1 This specification shall cover the installation of salvaged fenced materials and the supply and installation of new fence materials.
- E19.2 This specification supplements and amends C.W. 3550-R2 Chain Link Fencing
- E19.3 All new fencing shall be 1200 mm height, with knuckled top and bottom fabric.
- E19.4 Contractor shall salvage existing fencing as indicated on the drawings at St. George Park and Trafford Park for reinstallation to close off the two (2) existing park entrances, one at each park. See section E8 Demolition and Salvage for additional information. All surplus material is to be removed and legally disposed off site.
- E19.5 All existing fence posts which are removed shall have the holes backfilled with compacted sand to 150 mm below finish grade. Fill balance of hole with topsoil and seed/sod as specified.
- E19.6 At the park entrances, all chain link fencing is to be installed 100 mm in from the edge of the paving.
- E19.7 Removal of existing fencing will be paid on a lump sum basis and is to be included in the Demolition and Salvage cost in the Unit Price Forms. All new fencing, including closing off the existing two (2) openings in the fence, will be paid on a per lineal metre basis, as indicated in the Unit Price Forms.
- E19.8 Basis of Payment
- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a per lineal metre basis for the Items of Work listed below, which price shall include all costs of material supply including installation of the fencing.
    - (i) St. George Park, item No: 11 – 1220 ht. Chain link fencing.
    - (ii) St. George Park, item No: 12 – Steel Bollard (chain link post).
    - (iii) Trafford Park, item No: 44 – 1220 ht. Chain link fencing.

## **E20. POURED IN PLACE CONCRETE EDGING**

- E20.1 This specification covers the supply and installation of concrete edging, for the interlocking paved plaza at Eric Street Forest, the swing area edge at St. George Park, and the playstructure and sand box area edge at Trafford Park. Repairs to the existing street curb at St. David Place Park are also included in this section.
- E20.2 Materials
- (a) Concrete shall be 28 Mpa sulphate resistant.
  - (b) Granular base shall be 19 mm diameter crushed limestone
  - (c) Reinforcing steel shall be 10M
- E20.3 The Contractor shall install edging to the shape, sizes, and finish grade elevations shown on Drawings.
- E20.4 Provide round over edges on top two edges where concrete is exposed.
- E20.5 Trowel finish concrete and install sawcut control joints at maximum 1500 mm o.c., and at corners.
- E20.6 Repair of existing street curb at St. David Place Park is to be in accordance with CW 3240-R5 Renewal of Existing curbs.

## E20.7 Basis of Payment

- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a per lineal basis for the Items of Work listed below, which price shall include all costs for: repairs to the existing street curb; concrete edging around the play structure and swing; concrete edge around the interlocking paving, and shall include all costs for the excavation, granular sub-base, reinforcing steel and concrete.
  - (i) St. David Place Park, item No: 7 – 1220 ht. Concrete street curb repair.
  - (ii) St. George Park, item No: 16 – Concrete edge for play equipment.
  - (iii) Eric Street Forest, item No: 26 – 1220 ht. Concrete edge for interlocking paving.
  - (iv) Trafford Park, item No: 40 – Concrete edge for play equipment.
- (b) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a lump sum basis for the Items of Work listed below, which price shall include all costs for: the excavation, granular sub-base, reinforcing steel and concrete.
  - (i) Trafford Park, item No: 41 – Sand box concrete edge.

## E21. SAND BOX TIMBER SEATING AND SAND

E21.1 This specification covers the supply and installation of timber seating cap and sand for new sand box located at Trafford Park. The concrete edging is specified in section E20.

### E21.2 Materials

- (a) Wood shall be No: 2 or better Spruce or Pine, no wane, no bark, free of splits, and edge knots.
- (b) Screws shall be rustproof.
- (c) Concrete anchors shall be Hilti Quick bolts, size shown on the drawings.
- (d) Stain Treatment shall be Bio-Wash Ltd. Natural Deck Oil and Mill Glaze Away.
- (e) Sand shall be clean sand box sand.

E21.3 The Contractor shall install edging to the shape, sizes, and finish grade elevations shown on Drawings.

E21.4 Contractor shall router and cut all wood to the shape shown on drawing details 3, 4 sheet L6. Prior to installing coat all the sides of the wood with stain treatment as per Manufacturer's instructions.

E21.5 Secure lower wood member to concrete top with anchor bolts with the nuts and shaft of the bolts countersunk. Install upper wood seat member onto top of lower member staggering corner joints from each layer.

E21.6 Fill sand box with 400 mm depth of sand. Sand may be left mounded in the centre of the sand box.

### E21.7 Basis of Payment

- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a lump sum basis for the Items of Work listed below, which price shall include all costs of material supply including the timber seating and sand.
  - (i) Trafford Park, item No: 43 – Sand box timber seating.
  - (ii) Trafford Park, item No: 42 – Sand box sand.

## **E22. PLAYSTRUCTURES**

### **E22.1 General description**

- (a) This specification shall cover the supply and installation of one Playstructure as shown on the attached drawing 2-L6, and as specified herein.

### **E22.2 Location of Work**

- (a) Trafford Park

### **E22.3 Product**

E22.4 Playstructures shall be Landscape Structures Inc, PlayBooster System as shown on drawing 2-L6. and available from Playgrounds-R-U's, tel: 632-7000.:

### **E22.5 Materials**

#### **(a) Posts / Caps**

- (i) All posts shall be a minimum of 125 mm (5") O.D. round tubing. All posts shall be fabricated from aluminum (0.125" min. wall thickness) tubing with a baked-on TGIC polyester powder coating. The powder coating finish shall meet or exceed ASTM standards for hardness, adhesion, impact and salt spray resistance. All fabrication cuts drill holes and weld joints shall be sprayed with a corrosion resistant coating prior to powder coating. The bottom end of the posts is to be sealed with a moisture barrier.
- (ii) Top caps for posts shall be aluminum die cast and powder coated the same as the post colour. All caps shall be factory installed and secured in place with tamper proof, self-sealing rivets.

#### **(b) Decks**

- (i) All decks shall be manufactured from vinyl-coated perforated steel. Deck heights, shapes and configurations shall be as shown on the Detail Drawings.

#### **(c) Clamping System**

- (i) All deck, rail and play component clamping systems shall be fabricated from aluminum, with polyester powdercoated to match post colour unless noted on Detail drawings. Tamper proof, stainless steel fasteners shall be used to retain clamping systems.

#### **(d) Handrails, Safety Rails, Grab Bars, Pipe Barriers, and Handholds**

- (i) All handrails and safety rails shall be fabricated using a minimum of 29 mm (1 1/8") O.D. with a 120" wall thickness steel tubing. After all fabrication activities have occurred including end cuts, drill holes, bends and weld joints, all components shall be hot dipped galvanized and baked-on polyester powdercoated.
- (ii) Handholds shall be permalene panels.
- (iii) Grab Bars shall be TenderTuff coated.
- (iv) Pipe Barriers shall be powdercoated.

#### **(e) Hardware**

- (i) All fasteners shall be socketed and tamper proof in design, stainless steel finish.

#### **(f) Slides**

- (i) Steel slides are to be 16-gauge 304 stainless steel. Hoods shall be rotationally moulded from U.V. stabilized linear low density polyethylene with built-in handle.

### **E22.6 Play Components**

- (a) The following play components are to be included on the Playstructure:

- (i) one (1) Circus Ladder, 64" deck,
  - (ii) one (1) Corkscrew Climber, 72 " deck, constructed such that it can be slid down,
  - (iii) one (1) Vertical Ascent, 64" deck,
  - (iv) one (1) 40" Step Ladder,
  - (v) two (2) 42" Arch Bridge,
  - (vi) one (1) Stainless Steel Slide, 48" deck height,
  - (vii) one (1) Stainless Steel Slide, 72" deck height,
  - (viii) one (1) Storefront Panel, below deck,
  - (ix) one (1) Driver Panel,
  - (x) one (1) Pipe Barrier,
  - (xi) two (2) Permanent Handhold Panel,
  - (xii) one (1) Playstructure Seat,
  - (xiii) one (1) Skyrail Climber, 64" deck,
  - (xiv) two (2) Deck to Deck Step, 2 – 24" rise,
  - (xv) one (1) Block Climber, 40" deck,
  - (xvi) one (1) Grab Bar,
  - (xvii) one (1) 'S' Disc Challenge Right, 16", deck,
  - (xviii) one (1) Overhead Parallel Bars/Horizontal Ladder, 16" deck,
  - (xix) one (1) End Vertical Ladder,
  - (xx) one (1) Spider Web Climber,
  - (xxi) two (2) Pod Climber, 8" height,
  - (xxii) two (2) Pod Climber, 16" height,
  - (xxiii) one (1) Square deck, 16" height,
  - (xxiv) one (1) Square deck, 40" height,
  - (xxv) one (1) Square deck, 64" height,
  - (xxvi) one (1) Square deck, 72" height,
  - (xxvii) one (1) Triangular deck, 40" height,
  - (xxviii) one (1) Triangular deck, 48" height, and
  - (xxix) one (1) Triangular deck, 64" height.
- (b) All playstructures shall have kickplates and handhold panels as required to meet the CAN/CSA -Z614-98.
- (c) Colours
- (i) Cranberry Red: Posts, clamps, overheads, climbers
  - (ii) Yellow: handholds
  - (iii) Yellow over red panels
  - (iv) Green store front panel, pods, barriers, slide hoods
  - (v) Red: tendertuff
  - (vi) Red/Tan; block climber

## E22.7 Installation

- (a) Playstructures shall be installed as per the Canadian Standards Association Guidelines. Refer to E27. All posts and other vertical items shall be true to vertical. All decks shall be level. For foundations refer to E26.

- (b) Playstructures shall be installed by factory certified installers only and to manufacturer's specifications.
- (c) Installation of playstructures shall be coordinated with associated site development Work. Playstructures shall be secured and rendered unusable until safety surfacing is in place.
- (d) Playstructures shall be ordered and installation dates scheduled immediately upon award of contract.

#### E22.8 Basis of Payment

- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on lump sum price basis for the Items of Work listed below, which price shall include all costs for the supply and installation of all the components of the playstructure and accessory items.
  - (i) Trafford Park, item No: 35 – Playstructure

### **E23. SPRING RIDERS**

#### E23.1 General Description

- (a) This specification shall cover the supply and installation of complete Spring Riders as specified herein.

#### E23.2 Location of Work

- (a) Trafford Park Playstructure

#### E23.3 Quantities

- (a) Trafford Park
  - (i) One (1) T-Rex
  - (ii) One (1) Rhino-Dino

#### E23.4 Materials

- (a) Style A - Spring Rider: Landscape Structures Inc., "T-Rex", product #100124B, direct bury.
- (b) Style B - Spring Rider: Landscape Structures Inc., "RhinoDino", product #100123B, direct bury.

#### E23.5 Installation

- (a) Spring Riders shall be installed as per the Canadian Standards Association Guidelines. Refer to E27.
- (b) Spring Riders shall be installed by factory certified installers only and to manufacturer's specifications.
- (c) Location of each type of spring rider will be determined in the field.
- (d) Spring Rider shall be ordered and installation dates scheduled immediately upon award of contract.

#### E23.6 Basis of Payment

- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a per unit price basis for the Items of Work listed below, which price shall include all costs for the supply and installation of the spring riders.
  - (i) Trafford Park, item No: 36 – Rhino Dino spring rider,

- (ii) Trafford Park, item No: 37 – T-Rex spring rider.

## **E24. SWINGS**

### **E24.1 General Description**

- (a) This specification shall cover the supply and installation of complete Swing sets as specified herein.

### **E24.2 Location of Work**

- (a) St. George Park  
(b) Trafford Park

### **E24.3 Quantities**

- (a) St. George Park, one (1)  
(b) Trafford Park, one, (1)

### **E24.4 Materials**

#### **(a) Product Description**

- (i) SportsPlay Equipment Inc, Model #581-440: Tri-pod Leg, Two Bay, Heavy Duty Swing Frame, 10' high, complete with two (2) slash-proof rubber belt seats, two (2) slash-proof rubber enclosed infant seats, heavy duty chain, double clevis and bolt links.

#### **(b) Topbeam**

- (i) All topbeams shall be fabricated from 90mm (3 1/2") O.D. 7 gauge, RS40 galvanized steel pipe.

#### **(c) Legs**

- (i) All legs shall be fabricated from 60mm (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 and the bottom end of the posts shall be sealed with a moisture barrier.

#### **(d) Yoke Clamps**

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

#### **(e) Swing Hangers**

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

#### **(f) Swing Chain**

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

#### **(g) Enclosed Infant (Bucket) Seats**

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

#### **(h) Belt Seats**

- (i) 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.

#### E24.5 Installation

- (a) Swings shall be installed as per the Canadian Standards Association Guidelines. Refer to E27. For Foundations refer to E26.
- (b) Belt seats are to be installed at the end furthest away from other play equipment.
- (c) Swings shall be secured and rendered unusable until safety surfacing is in place.

#### E24.6 Basis of Payment

- (a) Payment for Work specified under this section shall be paid for at the unit price for the "Items of Work" listed below, which price shall include all costs of supply and installation. Site restoration Work shall be considered incidental to the Work.
- (b) Items of Work:
  - (i) St. George Park, item No: 14 – Four seat swing
  - (ii) Trafford Park, item No: 38 – Four seat swing

### **E25. PLAYGROUND SAFTEY STONE**

#### E25.1 General Description

- (a) This specification shall cover the supply and installation of Safety Stone within the play areas at St. George Park and Trafford Park

#### E25.2 Materials

- (a) Safety Stone shall be 6.35mm Playground Stone, composition shall be Typical Birds Hill glacial till material, approximately 70% limestone and 30% granite. Stone shall be washed and screened.

Sieve Analysis:

Sieve Size	Cumulative % Passing
6 mm	100
5 mm	80
2.5 mm	5-10
1.25 mm	2-6
.08 mm	0-1

- (b) Samples of the specified materials shall be submitted for approval to the Contract Administrator at least seven (7) Calendar Days prior to installation.

#### E25.3 Method

- (a) Play areas to receive Safety Stone are to be excavated to the depth required for correct depth of stone.
- (b) The installation of the Safety Stone shall be done immediately after the play equipment has been installed.
- (c) Installation shall be done by equipment sized to suit the Work being done and the Stone shall be spread by hand in the immediate vicinity of the play equipment so as not to damage the same.
- (d) The play equipment shall be swept clean as required after installation of the Stone.

#### E25.4 Basis of Payment

- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a per metre basis for the Items of Work listed below, which price shall include all costs for the excavation of the existing grade, and installation of the new safety stone
  - (i) St. George Park, item No: 15 – Playground safety stone
  - (ii) Trafford Park, item No: 39 – Playground safety stone.

### **E26. FOUNDATIONS**

E26.1 All playground equipment posts, bases and anchors are to be set in concrete footings or piles to ensure stability and prevent frost heaving. The current Standard Construction Specifications of the City of Winnipeg, CW 2160-R6. Concrete to be Used in Underground Works, is to utilize in the installation of the concrete Works for all below ground components.

E26.2 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 40mm, nominal
- (d) slump 90 20mm
- (e) maximum water/cement ratio 0.45

E26.3 Installation

- (a) Contractor shall notify the Contract Administrator at least 48 hours prior to installation of concrete, so that footings may be inspected in advance of concrete being poured.
- (b) Playstructure posts shall have a minimum 300mm (12") diameter concrete footing and shall be centred in the concrete footing to provide a minimum 50mm (2") band of concrete on all sides.
- (c) Spring rider shall have a minimum 450mm (18") diameter by 610mm (24") depth, concrete footing and shall be centred in the concrete footing.

### **E27. CANADIAN STANDARDS ASSOCIATION GUIDELINES**

E27.1 All playground equipment supplied and the method of installation shall be in accordance with the latest edition of the "National Standard of Canada, CAN/CSA-Z614-03".

### **E28. MAINTENANCE KITS**

E28.1 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.

### **E29. TOPSOIL AND FINISH GRADING**

E29.1 This specification shall amend CW 3540-R3 Specification for Topsoil and Finish Grading for Establishment of Turf Areas.

- E29.2 Topsoil depths for areas where the grass is to be topdress and seeded shall be installed to a 50 mm depth as indicated on the drawings.
- E29.3 Where topsoil is to be installed over existing grass to be repaired, the total volume of soil will be calculated based on a 50 mm depth times the area shown on the drawings or indicated in the specification and unit price forms. Based on the field conditions, the Contract Administrator may instruct the Contractor to spread out the volume of topsoil to varying depths to fill in low areas, or use less topsoil on high areas.
- E29.4 At St. David Place Park the Contractor shall allow for an area of 150 square metres of additional topsoil and seeding over and above all seed required over the Multi-Flow drainage lines. The location of where this topsoil will be spread will be field determined, and will be installed to fill in depressions, and create a more positive slope to the Multi-Flow drainage lines.
- E29.5 Basis of Payment
- (a) No separate payment will be made for topsoil and finish grading. The Contractor shall include any costs for these items of Work in with the sod or seeding costs.

### **E30. SODDING**

- E30.1 This specification shall amend CW 3510-R8.
- E30.2 The Contractor is made aware the installation of the granular walks at St George Park and Trafford Park will require sodding repairs along both edges of the installation. The Contractor will be responsible for these sodding repairs/costs, and no allowance has been made in the Unit Price Forms, for the sod areas along the walkways, unless there is a shaded area by the walkway which is labelled sod.
- E30.3 Basis of Payment
- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a per metre basis for the Items of Work listed below, which price shall include all costs for the excavation, placement of topsoil, sod installation and thirty day sod maintenance period.. No separate payment will be made for sodding repairs along the granular walkways. Only areas shaded and shown as sod on the drawings will be paid for under the Unit Price Quantities.
    - (i) St. David Place Park, item No: 4 – Sod and 125 mm depth topsoil,
    - (ii) St. George Park, item No: 10 – Sod and 125 mm depth topsoil,
    - (iii) Trafford Park, item No: 32 – Sod and 125 mm depth topsoil, and rough grading.

### **E31. SEEDING**

- E31.1 This specification shall amend CW 3520-R6.
- E31.2 The depth of topsoil below seeded areas is to be based on a 50 mm depth. The Contract Administrator reserves the right to redistribute the total volume of topsoil on site, within the confines of the total area of seed shown on the drawings. The depths may be adjusted greater or lesser based on field conditions and requirement to add a greater depth to fill in depressions and a lesser depth over ridges.
- E31.3 At St. David Place Park the Contractor shall allow for an area of 150 square metres of additional seeding over and above all seed required over the Multi-Flow drainage lines. The location of where this seed will be spread will be field determined.
- E31.4 Basis of Payment

- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a per metre basis for the Items of Work listed below, which price shall include all costs for the minor finish grading, placement of topsoil, seed installation and the seed maintenance period.
  - (i) St. David Place Park, item No: 5 – Seed and 50 mm depth topsoil,
  - (ii) Trafford Park, item No: 33 – Seed and 50 mm depth topsoil.

## **E32. PLANT MATERIAL**

E32.1 Description: This specification shall cover the supply and installation of nursery grown trees, shrubs and shrub bed installation.

E32.2 The City reserves the right to reduce the quantity of trees, shrubs and shrub beds installed in order to meet the budgetary constraints.

E32.3 Materials

E32.3.1 General

- (a) Trees shall be the size and variety noted on the Plant List attached to the end of this specification section. Plant material which does not have the specified root ball diameter will be rejected.
- (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) Where trees are measured by calliper (cal.), reference is made to the diameter of the trunk measured 300 mm above ground as the tree stands in the nursery.
- (i) 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.
- (j) All trees shall have one only, sturdy, reasonably straight and vertical trunk and a well balanced crown with fully developed leader. All evergreens shall be symmetrically

grown and branched from ground level up, and must be balled and burlapped unless noted otherwise on the plant list. At least one plant of each variety supplied shall bear a tag showing both the botanical and common name of the plant.

#### E32.3.2 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.

#### E32.3.3 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.

#### E32.3.4 Stakes

- (a) T-rail iron stakes 40 x 40 x 5 x 1540 mm long, primed with 1 brush coat of black zinc rich plant paint to CGSB 1-GP-181B. Paint section of stake above ground with 1 coat of green enamel paint.

#### E32.3.5 Tree Rings

- (a) Fabricated from 3 mm galvanized wire encased in two ply reinforced 12 mm dia. rubber garden hose of equivalent.

#### E32.3.6 Wound Dressing

- (a) Horticulturally accepted non-toxic, non-hardening emulsion.

#### E32.3.7 Wood Chip Mulch

- (a) Shall be standard tree limbs and leaves chippings, containing a maximum of 5% conifer branches. Wood chip mulch will be available free of charge to the Contractor at the Henteleff tree nursery site, 1980 St. Mary's Road. The Contractor is responsible to load, haul to, and spread the wood chip mulch at the contract sites.

### E32.4 Construction Methods

#### E32.4.1 General

- (a) Planting pits shall be excavated in a square shape with vertical sides to a depth and width amounting to twice the diameter of the root system. The minimum depth shall be 610 mm (24") and the minimum diameter shall be 1530 mm (5'). The excavated tree pits shall be refilled with backfill mix (E32.3.3). Hand dig pits where required to protect underground utilities.
- (b) 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 (E32.3.3) to a 300mm depth, and covered with a 100mm depth of wood chip mulch.

#### E32.4.2 Installation

- (a) Upon excavation of the tree pits, and protection of any underground utility lines, the holes shall be backfilled with a topsoil mixture to a depth to permit adequate installation and stabilization of the plant material.

- (b) Each balled specimen shall be handled with great care, to ensure that the root balls will not be broken. Burlap shall be folded back only at the top and sides. Broken roots of deciduous stock shall be pruned back prior to planting.
- (c) After inserting the tree and filling the planting hole with topsoil, water shall be poured in until the pit is thoroughly soaked. Filling of the hole shall then be completed and the fill-in soil shall be packed firmly around the roots, leaving a concave surface for convenient watering 75 mm below rounding and grade elevation. After filling, the planting shall be watered at frequent intervals.
- (d) Planting shall be done during periods suitable to weather conditions and locally accepted practice. All nursery stock shall be set plumb in the centre of pits and at levels as shown on the planting details after settlement has taken place.
- (e) Nursery stock shall be faced to give the best appearance or relationship to adjacent structures and to the approval of the Contract Administrator.
- (f) Wood chip mulch shall be installed over the tree rootball as shown on the drawings.

#### E32.4.3 Pruning

- (a) All deciduous trees shall be pruned immediately after planting. The amount of pruning shall be limited to the minimum necessary to remove dead or injured branches and to compensate for the loss of roots as a result of transplanting operations. Pruning shall be done in such a manner as to preserve the natural character of the plants. Leaders shall not be removed. Only clean, sharp tools shall be used. All cuts shall be clean and flush, leaving no stubs. Cuts, bruises or scars on the bark shall be traced back to living tissue and removed. The affected areas shall be shaped so as not to retain water and all cuts of more than 25 mm in diameter shall be painted with approved tree paint.

#### E32.4.4 Staking

- (a) All trees shall be staked using metal T-BAR stakes. The number of stakes required per tree is shown in the Plant List. The tree trunk shall be completely encircled and protected with two rubber tree rings and secured to each tree stake. Top of each tree stake shall be at the same elevation above finished grade, approximately 1200 – 1500 mm height. At the end of the two year maintenance period the Contractor is to remove the tree stakes and associated fasteners.

#### E32.5 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 two years 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 replacements plants shall be installed within from the date of notification from the City, unless the City extends the time period, as a result of seasonal or climatic considerations.
- (b) Exempted is nursery stock damaged by accidental causes or vandalism, which stock shall be replaced at the cost of the City.
- (c) 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 two-year guarantee and maintenance period. All trees must be in a healthy conditional for a full two years before the warranty on the year will be considered fulfilled.

#### E32.6 Basis of Payment

- (a) The supply and installation of Plant Material will be paid for at the Contract unit price for each tree and shrub, measured as specified herein, which price shall be payment

in full including all costs for the tree, shrub, tree pit and topsoil backfill, tree stakes, tree rings, pruning, two year maintenance, and all other items incidental to the Work included in this Specification.

- (i) St. George Park, item No: 19a to 19g – species and quantities as noted in Unit Price Forms,
- (ii) Trafford Park, item No: 47a to 47c – species and quantities as noted in Unit Price Forms.

**E32.7 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 the hauling and installation of the wood chip mulch.
  - (i) St. George Park, item No: 17 – Shrub bed topsoil and 100 mm depth of wood chip covering,
  - (ii) Trafford Park, item No: 46 – Shrub bed topsoil and 100 mm depth of wood chip covering.

**PLANT LIST**

Quantity	Common Name/botanical name	Size / Remarks
3	American Basswood / <i>Tilia americana</i>	Min. 65 mm caliper, 3000mm ht. Single straight trunk. Specimen quality. Well branched head above 1830mm ht. Minimum 800 mm dia. rootball. Two stakes per tree.
6	Blackhills Spruce / <i>Picea glauca densata</i>	4 @ 1500 mm height, 2 @ 1800 mm height. Specimen Quality. Minimum root ball size: 1500 ht. – 600 mm dia.; 1800 ht. – 700 mm dia. Two stakes per tree.
14	Littleleaf Lilac (Dwarf Korean)/ <i>Syringa meyeri</i> 'Palibin'	Min. 10 major basal stems, each stem to be min. 400 mm height. Container.
26	Gold Drop Potentilla / <i>Potentilla fruticosa</i> 'Gold Drop'	Min. 8 major basal stems, each stem to be min. 300 mm height. Container.
37	Daylily (mixture) / <i>hemerocallis</i>	Min. 4 different types, zone 2 or 3, various colours. Provide equal mixture in each planting location. Min. 2 year old plants, 150 mm dia. pots
30	Heartleaf Bergenia (Cambridge Rose) / <i>Bergenia cordifolia</i>	Min. two year old plants, 150 mm dia. pots.

**E33. TREE MAINTENANCE SCHEDULE**

- E33.1 Description: This specification shall cover the landscape maintenance requirements for all trees and associated tree pits, shrubs and associated shrub beds.
- E33.2 Related Work: Plant material and tree pits are specified elsewhere in this Specification and form an integral part to all Work described herein.

E33.3 Maintenance Period: Undertake maintenance from the date of installation for a period of two years past the date of Total Performance.

E33.4 Description of Work

- (a) Maintain trees shown on the drawings, to the satisfaction of the Contract Administrator
- (b) Work includes:
  - Fertilizing
  - Watering
  - Weed Control of tree pits, wood chip mulch areas
  - Pest and disease control
  - Pruning
  - Mulching
  - Tree support and tie adjustment
  - Winter protection

E33.5 Protection

- (a) Prevent damage to fencing, other trees, landscaping, bench marks, building, pavement, surface and underground utility facilities.

E33.6 Materials

- (a) Materials are to conform to the requirements of related specifications.

E33.7 Maintenance Requirements

- (a) Condition of Equipment

Prior to the commencement of tree and shrub planting, the Contractor will be required to arrange to have the equipment to be supplied under this Contract inspected by the Contract Administrator to verify that the equipment is in good operating condition and meets the requirements of the Specifications.

- (b) Replacement Equipment

The supply of replacement equipment of equal or larger size, if regular units are under repair, will be the responsibility of the Contractor.

- (c) General Workmanship

Program timing of operations to growth, weather conditions and use of site.

Do each operation continuously and complete within reasonable time period.

Store equipment and materials off-site.

Collect and dispose of debris or excess material on daily basis.

E33.8 Fertilizing

- (a) Apply fertilizer no later than May 30th of each maintenance year.

E33.9 Watering

- (a) Apply water as required to supplement rainfall and to maintain optimum growing conditions. In general, water once a week to achieve rates as indicated below. Allow soil to dry adequately between watering to prevent over-saturation without creating water stress.

- (b) Subject to the requirements above, the Contractor must water at least once a week inclusive between May 1st and October 30th. A complete record is to be kept of each series of waterings for all planted and transplanted trees, noting: 1) location, and 2) date of watering. This record is to be given to the Contract Administrator when requested.
- (c) Apply 40 litres of water per 25mm caliper, per application using deep root feeder or low pressure open flow nozzle and hose. The water stream must not gouge out a hole in the soil and mulch.
- (d) Apply 4 litres of water per shrub per application.
- (e) The Contractor shall maintain all sodded areas for 30 days from the Contract completion.

#### E33.10 Weed Control

- (a) Maintain surface of tree pit, shrub bed and mulched areas, free of weeds. Do not allow weeds to establish for a period longer than one (1) week.
- (b) Do not use dicamba and picloram solutions near trees.

#### E33.11 Pests and Diseases

- (a) Obtain written approval of Contract Administrator prior to using any pesticide.
- (b) Control pests and disease through pruning or application of pesticides. Use species specific pesticides where possible. Use only pesticides of low mammalian toxicity. Strictly follow manufacturer's written instructions.

#### E33.12 Pruning

- (a) The Contractor shall provide a person with a valid Manitoba tree Pruner's License for each Work crew or Work site.
- (b) Prune trees as required to remove dead, broken or damaged limbs. Prune back to healthy growth while maintaining balanced crown shape.
- (c) Employ clean sharp tools. Make cuts coincident with the branch collar near the main stem or branch. Cuts must be smooth and sloping to prevent accumulation of water on cut. Do not leave little stumps ("horns") on trunks or main branches.
- (d) Prune trees according to accepted horticultural practices as outlined in the Pruning Manual, Publication No. 1505 by Agriculture Canada.

#### E33.13 Mulching

- (a) Add mulch as required to maintain 100 mm thickness.

#### E33.14 Tree Supports and Tie Adjustments

- (a) Maintain tree supports and ties in proper repair.
- (b) Remove supports and ties at end of two year maintenance period or earlier if directed by City.
- (c) Straighten any tree which is leaning.

#### E33.15 Winter Protection

- (a) Ensure adequate moisture in tree zones prior to freeze-up.
- (b) Apply anti-desiccant to evergreen trees susceptible to winter desiccation as directed by Contract Administrator.

#### E33.16 Maintenance Schedule

- (a) The Contractor shall provide a complete written maintenance schedule to the Contract Administrator prior to the commencement of the two year maintenance period, and must

provide weekly reports of all maintenance to the City of Winnipeg, Forestry Department, within one week of the maintenance being provided.

**E33.17 Maintenance Period**

- (a) The two year maintenance period shall be based on a six month growing season per year. The two year maintenance program will consist of a total of 12 months of maintenance. In general the maintenance shall commence on May 1st and terminate on October 30th of each year. In the event of any early spring, whereby the weather conditions are conducive to plant growth, the Contractor shall start the maintenance period at such time as they deem necessary. However, the City of Winnipeg, Forestry Branch, must be notified prior to commencing the maintenance period. Where the maintenance contract is started prior to May 1st, the actual number of days that the plant material is maintained prior to May 1st will be deducted from the October 30th completion period.

**E33.18 Basis of Payment**

- (i) No separate payment will be made for the two year maintenance Contract. The cost for all this Work is to be included in the unit price cost for each tree and shrub.

**E34. WOOD CHIP MULCHED BEDS**

**E34.1.1** Description: This specification shall cover the installation of wood chip mulch over existing grass areas and amongst existing trees and shrubs at St. George Park, as shown on drawing 2-L2 and detail 5-L3.

**E34.1.2** Wood Chip Mulch

- (a) Shall be standard tree limbs and leaves chippings, containing a maximum of 5% conifer branches. Wood chip mulch will be available free of charge to the Contractor at the Henteleff tree nursery site, 1980 St. Mary's Road. The Contractor is responsible to load, haul to, and spread the wood chip mulch at the contract sites.

**E34.1.3** Contractor shall lay out shape of wood chip mulch beds and have Contract Administrator approve the same, prior to commencing excavation. Area of beds must not exceed quantity in Unit Price Forms.

**E34.1.4** Contractor shall kill existing grass vegetation with "Round-Up" herbicide 10 days prior to removing grass. Ensure there is no wind drifting up product. Install signage warning of spraying and herbicide type, prior to spraying and keep in place until vegetation is removed.

**E34.1.5** Remove grass at edge of wood chip beds where they adjoin with sodded areas. Lower grade by existing grass to remain, as shown in detail 5-L3.

**E34.1.6** Install wood chip to a uniform 150 mm depth. Wood chip may be installed on existing grade by perimeter fenced areas.

**E34.2** Basis of Payment

- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a per metre basis for the Items of Work listed below, which price shall include all costs for the herbicide spraying, excavation of grade, and installation of wood chip mulch. The cost for wood chip mulch on top of new shrub beds, is to be included in the cost of the shrub bed topsoil identified in section E32.7.
- (i) St. George Park, item No: 18 – Wood chipped mulched areas.