



**THE CITY OF WINNIPEG**

# **BID OPPORTUNITY**

**BID OPPORTUNITY NO. 651-2007**

**PARK TREE PLANTING AND MAINTENANCE SERVICES**

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## **PART B - BIDDING PROCEDURES**

### **B1. CONTRACT TITLE**

B1.1 PARK TREE PLANTING AND MAINTENANCE SERVICES

### **B2. SUBMISSION DEADLINE**

B2.1 The Submission Deadline is 4:00 p.m. Winnipeg time, October 25, 2007.

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

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

### **B3. SITE INVESTIGATION**

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

### **B4. ENQUIRIES**

B4.1 All enquiries shall be directed to the Contract Administrator identified in D4.1.

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 promptly notify the Contract Administrator of the error, discrepancy or omission at least five (5) Business Days prior to the Submission Deadline.

B4.3 If the Bidder is unsure of the meaning or intent of any provision therein, the Bidder should request clarification as to the meaning or intent prior to the Submission Deadline.

B4.4 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.

B4.5 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.

B4.6 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 regularly and shortly before the Submission Deadline, as may be amended by addendum.

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 Contract;
- (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 Contract.

B6.5 The Contract Administrator, after assessing the request for approval of a substitute, may in his sole discretion grant approval for the use of a substitute as an "approved equal" or as an "approved alternative", or may refuse to grant approval of the substitute.

B6.6 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, only to the Bidder who requested approval of the substitute.

B6.6.1 The Bidder requesting and obtaining the approval of a substitute shall be entirely responsible for disseminating information regarding the approval to any person or persons he wishes to inform.

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

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

- (a) Form A: Bid;

(b) Form B: Prices.

- B7.2 Further to B7.1, the Bidder should include the written correspondence from the Contract Administrator approving a substitute in accordance with B6.
- B7.3 All components of the Bid shall be fully completed or provided, and submitted by the Bidder no later than the Submission Deadline, with all required entries made clearly and completely, to constitute a responsive Bid.
- B7.4 Bidders are advised not to include any information/literature except as requested in accordance with B7.1.
- B7.5 Bidders are advised that inclusion of terms and conditions inconsistent with the Bid Opportunity document, including the General Conditions, may result in the Bid being determined to be non-responsive.
- B7.6 The Bid may be submitted by mail, courier or personal delivery, or by facsimile transmission.
- B7.7 If the Bid is submitted by mail, courier or personal delivery, it shall be enclosed and sealed in an envelope clearly marked with the Bid Opportunity number and the Bidder's name and address, and shall be submitted to:  
The City of Winnipeg  
Corporate Finance Department  
Materials Management Branch  
185 King Street, Main Floor  
Winnipeg MB R3B 1J1
- B7.7.1 Samples or other components of the Bid 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.
- B7.8 If the Bid is submitted by facsimile transmission, it shall be submitted to (204) 949-1178
- B7.8.1 The Bidder is advised that the City cannot take responsibility for the availability of the facsimile machine at any time.
- B7.9 Bids submitted by internet electronic mail (e-mail) will not be accepted.

**B8. BID**

- B8.1 The Bidder shall complete Form A: Bid, making all required entries.
- B8.2 Paragraph 2 of Form A: Bid shall be completed in accordance with the following requirements:
- (a) if the Bidder is a sole proprietor carrying on business in his own name, his name shall be inserted;
  - (b) if the Bidder is a partnership, the full name of the partnership shall be inserted;
  - (c) if the Bidder is a corporation, the full name of the corporation shall be inserted;
  - (d) if the Bidder is carrying on business under a name other than his own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.
- B8.2.1 If a Bid is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B8.2.
- B8.3 In Paragraph 3 of Form A: Bid, the Bidder shall identify a contact person who is authorized to represent the Bidder for purposes of the Bid.
- B8.4 Paragraph 10 of Form A: Bid shall be signed in accordance with the following requirements:

- (a) if the Bidder is a sole proprietor carrying on business in his own name, it shall be signed by the Bidder;
- (b) if the Bidder is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;
- (c) if the Bidder is a corporation, it shall be signed by its duly authorized officer or officers and the corporate seal, if the corporation has one, should be affixed;
- (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 should be witnessed, except where a corporate seal has been affixed.

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

## **B9. PRICES**

B9.1 The Bidder shall state a price in Canadian funds for each item in each Section in Alternative 1, and/or each item in each Section of the Work that the Bidder intends to bid on in Alternative 2 of the Work identified on Form B: Prices.

B9.1.1 Notwithstanding C11.1.1, prices on Form B: Prices shall not include the Goods and Services Tax (GST) or Manitoba Retail Sales Tax (MRST, also known as PST), which shall be extra where applicable.

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

B9.3 The 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, or if the Bidder does not carry on business in Manitoba, in the jurisdiction where the Bidder does carry on business; and
- (b) be financially capable of carrying out the terms of the Contract; and
- (c) have all the necessary experience, capital, organization, and equipment to perform the Work in strict accordance with the terms and provisions of the Contract.

B10.2 The Bidder and any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

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

B10.3 The Bidder and/or any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

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

B10.4 The Bidder shall submit, within three (3) Business Days of a request by the Contract Administrator, proof satisfactory to the Contract Administrator of the qualifications of the Bidder and of any proposed Subcontractor.

B10.5 The Bidder shall provide, on the request of the Contract Administrator, full access to any of the Bidder's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Bidder's equipment and facilities are adequate to perform the Work.

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

B11.1 Bids will not be opened publicly.

B11.2 Following the Submission Deadline, the names of the Bidders and their bid prices (unevaluated, and pending review and verification of conformance with requirements) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management 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 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 C22.5, 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 will:

- (a) retain the Bid until after the Submission Deadline has elapsed;
- (b) open the Bid to identify the contact person named in Paragraph 3 of Form A: Bid and the Bidder's authorized representatives named in Paragraph 10 of Form A: Bid; and



- (c) if the notice has been given by any one of the persons specified in 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 Subcontractors, if any, pursuant to B10 (pass/fail);
- (c) 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 is incomplete, obscure or conditional, or contains additions, deletions, alterations or other irregularities. The Award Authority may reject all or any part of any Bid, or waive technical requirements or minor informalities or irregularities if the interests of the City so require.

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 or in other information required to be submitted, that he is responsible and qualified.

B14.4 Further to B14.1(c), the Bid Price shall be the sum of the quantities multiplied by the unit prices for each item 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 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 Bid Prices of all responsive Bids submitted by responsible and qualified Bidders will be adjusted by deducting item 10: "Supply and Install Deciduous Trees in Tree Grates once paving work (by others) has been completed".

B14.5 Further to B14.1(c), the Bid Price shall be the sum of the quantities multiplied by the unit prices for each item shown on Form B: Prices.

B14.5 This Contract may be awarded as a whole (Alternative 1) or separately in sections (Alternative 2) as identified on Form B: Prices.

B14.5.1 Notwithstanding B9.1, the Bidder may, but is not required to, bid on both alternatives, or on any one or more sections in Alternative 2.

B14.5.2 Notwithstanding B15.3, the City shall not be obligated to award any section to the responsible Bidder submitting the lowest evaluated responsive Bid for that section and shall have the right to choose the alternative which is in its best interests. If the Bidder has not bid on both alternatives or on all sections in Alternative 2, he shall have no claim against the City if his partial Bid is rejected in favour of an award of the Contract on the basis of an alternative or section upon which he has not bid.

#### **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.
- B15.3.1 Following the award of contract, a Bidder will be provided with information related to the evaluation of his Bid upon written request to the Contract Administrator.
- B15.4 Notwithstanding C4.1, the City will issue a purchase order to the successful Bidder in lieu of the execution of a Contract.
- B15.5 The Contract Documents, as defined in C1.1(n), in their entirety shall be deemed to be incorporated in and to form a part of the purchase order notwithstanding that they are not necessarily attached to or accompany said purchase order.

## **PART C - GENERAL CONDITIONS**

### **C0. GENERAL CONDITIONS**

- C0.1 The *General Conditions for Supply of Services* (Revision 2007 04 12) are applicable to the Work of the Contract.
- C0.1.1 The *General Conditions for Supply of Services* 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>.
- C0.2 A reference in the Bid Opportunity to a section, clause or subclause with the prefix “**C**” designates a section, clause or subclause in the *General Conditions for Supply of Services*.

## PART D - SUPPLEMENTAL CONDITIONS

### GENERAL

#### D1. GENERAL CONDITIONS

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

#### D2. SCOPE OF WORK

D2.1 The Work to be done under the Contract shall consist of supply and planting of trees and maintenance of the new tree plantings.

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

- (a) Supply and Installation of coniferous and deciduous trees;
- (b) Maintenance of trees;
- (c) Removal of trees, as required; and
- (d) Disposal of debris from tree Site.

D2.3 The City reserves the right to add or delete locations, within the boundaries of the City, or alter the type and/or quantity of Work performed at any location as required by changes in its operations during the term of the Contract.

#### D3. DEFINITIONS

D3.1 When used in this Bid Opportunity:

- (a) "**Business Day**" means any Calendar Day, other than a Saturday, Sunday, or a Statutory or Civic Holiday;
- (b) "**Submission Deadline**" and "**Time and Date Set for the Final Receipt of Bids**" mean the time and date set out in the Bidding Procedures for final receipt of Bids.

#### D4. CONTRACT ADMINISTRATOR

D4.1 The Contract Administrator is:

Christina Harris  
Urban Designer  
City of Winnipeg  
Parks, Riverbanks and Community Initiatives Branch  
Planning and Land Use Division  
Planning, Property and Development Department  
15-30 Fort St.  
Winnipeg. MB R3C 4X5  
Telephone No. (204) 986-7436  
Facsimile No. (204) 986-7524

D4.2 At the pre-commencement meeting, the Contract Administrator will identify additional personnel representing the Contract Administrator and their respective roles and responsibilities for the Work.

#### D5. CONTRACTOR'S SUPERVISOR

D5.1 Further to C6.19, the Contractor shall employ and keep on the Work, at all times during the performance of the Work, a competent supervisor and assistants, if necessary, acceptable to

the Contract Administrator. The supervisor shall represent the Contractor on the Site. The supervisor shall not be replaced without the prior consent of the Contract Administrator unless the supervisor proves to be unsatisfactory to the Contractor and ceases to be in his employ.

D5.2 Before commencement of Work, the Contractor shall identify his designated supervisor and any additional personnel representing the Contractor and their respective roles and responsibilities for the Work.

D5.2.1 Further to C5.5 Contract Administrator may give instructions or orders to the Contractor's supervisor and such instructions or orders shall be deemed to have been given to the Contractor.

## **D6. PERMITS, NOTICES, LICENSE, CERTIFICATES, LAWS AND RULES**

D6.1 Further to C: 6.12, the Contractor shall give all necessary notices, obtain all necessary permits and pay all fees in order that the Work may be carried out. The Contractor shall submit all plans required by any inspection authority and obtain approval of same before proceeding with the Work, and pay any cost attached to the inspection of such plans.

D6.2 Further to C6.11, the Contractor shall comply with all laws, ordinances, rules and regulations that would relate to the Work.

D6.3 Further to C23.2, all notices, consents, approvals, statements, authorizations, documents or other communications to the City shall be submitted to the Contract Administrator.

D6.4 Further to C6.26, all Work shall be performed in compliance with the Manitoba Workplace Health and Safety Act.

D6.5 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety Fall Protection guidelines.

(a) The Contractor and Subcontractors must be fully aware of all Work involving hazardous materials. All Work must be performed in compliance with the Manitoba Department of Labour Workplace Health and Safety Guidelines and all other applicable codes. The Contractor is responsible for the immediate notification to the Contract Administrator of his/her encountering of suspected hazardous material during their course of Work.

## **SUBMISSIONS**

### **D7. AUTHORITY TO CARRY ON BUSINESS**

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

### **D8. INSURANCE**

D8.1 The Contractor shall provide and maintain the following insurance coverage:

- (a) commercial general liability insurance, in the amount of at least two million dollars (\$2,000,000.00) inclusive, with The City of Winnipeg added as an additional insured; such liability policy to also contain a cross-liability clause, non-owned automobile liability and products and completed operations cover, to remain in place at all times during the performance of the Work;
- (b) if required, automobile liability insurance for owned automobiles used for or in connection with the Work in the amount of at least two million dollars (\$2,000,000.00), to remain in place at all times during the performance of the Work;

- D8.2 Deductibles shall be borne by the Contractor.
- D8.3 The Contractor shall provide the Contract Administrator with a certificate(s) of insurance, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than seven (7) Calendar Days from notification of the award of Contract.
- D8.4 The Contractor shall not cancel, materially alter, or cause the policy to lapse without providing at least fifteen (15) Calendar Days prior written notice to the Contract Administrator.

## **SCHEDULE OF WORK**

### **D9. COMMENCEMENT**

- D9.1 The Contractor shall not commence any Work until he is in receipt of a notice of award from the City authorizing the commencement of the Work.
- D9.2 The Contractor shall not commence any Work on the Site until:
- (a) the Contract Administrator has confirmed receipt and approval of:
    - (i) evidence of authority to carry on business specified in D7;
    - (ii) evidence of the workers compensation coverage specified in C6.14; and
    - (iii) evidence of the insurance specified in D8.
  - (b) the Contractor has attended a meeting with the Contract Administrator, or the Contract Administrator has waived the requirement for a meeting.
- D9.3 The Contractor shall commence the Work on the Site within seven (7) Working Days of receipt of a purchase order.

### **D10. SUBSTANTIAL PERFORMANCE**

- D10.1 The Contractor shall achieve Substantial Performance within twenty five (25) consecutive Working Days of the commencement of the Work as specified in D9.
- D10.2 When the Contractor considers the Work to be substantially performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Substantial Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be reinspected.
- D10.3 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.

### **D11. TOTAL PERFORMANCE**

- D11.1 The Contractor shall achieve Total Performance within five (5) consecutive Working Days of the date that Substantial Performance is inspected.
- D11.2 When the Contractor or the Contract Administrator considers the Work to be totally performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Total Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be reinspected.
- D11.3 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.

## **D12. LIQUIDATED DAMAGES**

- D12.1 If the Contractor fails to achieve Substantial Performance in accordance with the Contract by the day fixed herein for Substantial Performance, the Contractor shall pay the City Five Hundred dollars (\$500.00) per Working Day for each and every Working Day following the day fixed herein for Substantial Performance during which such failure continues.
- D12.2 The amount specified for liquidated damages in D12.1 is based on a genuine pre-estimate of the City's losses in the event that the Contractor does not achieve Substantial Performance by the day fixed herein for same.
- D12.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

## **D13. EXISTING SERVICES AND UTILITIES**

- D13.1 No responsibility will be assumed by the City for correctness or completeness of the Drawings, when provided, with respect to the existing utilities, pipes or other objects either underground or on the surface; the City shall not be liable for the incorrectness and inadequacy thereof. It shall be the responsibility of the Contractor to determine the location of all such utilities, pipes and other objects and to make good any damage done to them.

## **D14. ACCESS TO SITE**

- D14.1 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.
- D14.2 The Contractor's operations shall be limited to the minimum area necessary for undertaking the Work and he shall be responsible for all damage resulting from his Work on private property.

## **D15. DAMAGE TO EXISTING STRUCTURES, TREES AND PROPERTY**

- D15.1 All necessary precautions shall be exercised by the Contractor so as not to remove, disturb, or damage any existing trees, shrubs, sod, pavements, streets, roads, boulevards, poles, hydrants, water pipes, gas pipes, electrical wires, cables, conduits, sewers or other existing facilities and equipment at the Site of the Work. For all damage incurred in the performance of the Work (either directly or indirectly), the Contractor shall either replace and repair such damage, whichever may be deemed necessary in the opinion of, and acceptable to City of Winnipeg Contract Administrator, and the cost of which shall be borne entirely by the Contractor. The Contractor shall also indemnify and save harmless the City from all claims made directly or indirectly against it in respect to any such damage.
- D15.2 The Contractor shall take the following precautionary steps to prevent damage from construction activities to existing park trees within the limits of the construction area.
- D15.3 The Contractor shall not stockpile materials and soil or park vehicles and equipment within 2 metres of trees.
- D15.4 Trees identified to be at risk by the Contract Administrator are to be strapped with 25x100x2400 wood planks, or suitable protected as approved by the Contract Administrator.
- D15.5 Excavation shall be performed in a manner that minimizes damage to the existing root systems. Where possible, excavation shall be carried out such that the edge of the excavation shall be a minimum of 1.5 times the diameter (measured in inches), with the outcome read in feet, from the closest edge of the trunk. Where roots must be cut to facilitate excavation, they shall be pruned neatly by a certified arborist at the face of excavation.
- D15.6 Operation of equipment within the drip line of the trees shall be kept to a minimum required to perform the Work required. Equipment shall not be parked, repaired, refuelled; construction materials shall not be stored, and earth materials shall not be stockpiled within the drip lines of

trees. The drip line of a tree shall be considered to be all of the ground surface located beneath the tree and radiating out to the tips of its outermost branches. The Contractor shall ensure that the operations do not cause flooding or sediment deposition on areas where trees are located.

D15.6.1 All damage to existing trees caused by the Contractor's activities shall be repaired to the requirements and satisfaction of the Contract Administrator and the City Forester or his/her designate.

D15.7 No separate measurement or payment will be made for the protection of trees.

#### **D16. SCHEDULED MAINTENANCE**

D16.1 The Contractor shall perform the following scheduled maintenance in the manner and within the time periods required by the Specifications as follows:

(a) Maintenance of New Tree Plantings (Years 1 and 2) as specified in E12.

D16.2 Determination of Substantial Performance and Total Performance shall be exclusive of scheduled maintenance identified herein.

#### **CONTROL OF WORK**

#### **D17. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)**

D17.1 Further to C6.23, 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).

#### **D18. SAFETY**

D18.1 The Contractor shall be solely responsible for safety at the Site and for compliance with all laws, rules, regulations and practices required by the applicable safety legislation.

D18.2 The Contractor shall be solely responsible for securing the Site, and any existing facility thereon, and for the proper care and protection of the Work already performed.

D18.3 The Contractor shall do whatever is necessary to ensure that:

(a) no person, property, right, easement or privilege is injured, damaged or infringed by reason of the Contractor's activities in performing the Work;

(b) the health and safety of all persons employed in the performance of the Work or otherwise is not endangered by the method or means of its performance;

(c) adequate medical services are available to all persons employed on the Work and at all times during the performance of the Work;

#### **D19. DETAILED WORK SCHEDULE**

D19.1 The Contractor shall provide the Contract Administrator with a detailed work schedule at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.

D19.2 The detailed work schedule shall consist of the following dates:

(a) start date;

(b) installation dates of trees within each park location;

(c) expected completion.

D19.3 Other milestone dates appropriate to this project should also be included to make the Contract Administrator aware of them.



## **MEASUREMENT AND PAYMENT**

### **D20. INVOICES**

- D20.1 Further to C11, the Contractor shall submit an invoice on a monthly basis for all tree plantings completed within that period.
- D20.2 Further to D6.3, the Contractor shall submit invoices to The City of Winnipeg, Planning, Property and Development Department, Planning and Land Use Division, Parks, Riverbanks and Community Initiatives Branch, 15-30 Fort Street, Winnipeg MB R3C 4X5.
- D20.3 Invoices must clearly indicate, as a minimum:
- (a) the City's order number;
  - (b) date of tree planting;
  - (c) park in which tree was planted;
  - (d) type and quantity of goods delivered and planted;
  - (e) the amount payable with GST and MRST shown as separate amounts; and
  - (f) the Contractor's GST registration number.
- D20.4 The City will bear no responsibility for delays in approval of invoices which are improperly submitted.

### **D21. BASIS OF PAYMENT**

- D21.1 Payment shall be made at the unit price identified for each item of Work.
- (a) The Contractor shall submit an invoice at the end of each month to the Contract Administrator for all planting projects completed during that month;
  - (b) The Contract Administrator or designate will inspect the planting project within 48 hours. If it is deemed acceptable, funds will be released.
  - (c) Tree maintenance will be paid on a yearly basis with a separate bid price (as per Form B: Prices).
- D21.2 One maintenance year shall be calculated based on the planting anniversary of each planting section.
- D21.3 Payment shall include all costs of labour and material supply, and all other items incidental to the work.
- D21.4 Replacement plantings that are requested during the maintenance period shall be completed within five (5) Working Days of the request by the Contract Administrator. Failure to do so will result in the maintenance period for that zone being extended an amount equal to the time that elapsed between the request and the actual replacement of the plant material.

## **WARRANTY**

### **D22. WARRANTY**

- D22.1 Warranty is as stated in C12.

### **D23. SITE RESTORATION**

- D23.1 Total Performance of the Work shall not be attained until the Contractor has cleaned up the Site and has removed all tools, equipment, waste, debris and surplus foundation earth to the satisfaction of the Contract Administrator. Unless otherwise specified, the Contractor shall restore all areas of the Site beyond the established limit of Work, which have been disturbed by

the Contractor's operations to as good as or better than the original condition to the satisfaction of the Contract Administrator. The Contractor shall pay all costs associated with this Work.

## PART E - SPECIFICATIONS

### GENERAL

#### E1. APPLICABLE SPECIFICATIONS AND DRAWINGS

E1.1 These Specifications shall apply to the Work.

E1.2 The following Drawings are applicable to the Work:

<u>Drawing No.</u>	<u>Drawing Name/Title</u>
SCD-514	DECIDUOUS TREE PLANTING (PARKS)
SCD-515	CONIFEROUS TREE PLANTING (PARKS)
SCD-516	DECIDUOUS TREE PLANTING (TREE WELL)
T.1-A	FALL 2007 TREE PLANTING LOCATIONS
F.6-E	Furby Tot Lot – Proposed Tree Planting
M.75-B	Marlow Court Playground – Proposed Trees
L.15-D	Luxton Community Centre - Proposed Tree Planting
K.5-N	Kirkbridge Park - Proposed Trees
H.34-C	Harris Park - Proposed Trees
W.39-C	William Osler Playground - Proposed Tree Planting
S.37-E	Sir John Franklin Park - Proposed Trees
M.5-M	McKittrick Park - Proposed Trees
B.6-F	Beaverdam Creek Playground - Proposed Tree Location
C.80-A	Cindy Kassen Recreation Complex - Proposed Tree Planting
S.13-S	St. John's Park - Proposed Trees
J.21-A	Jefferson Pumping Station - Proposed Tree Planting
B.9-C	Bramwell Park - Proposed Tree
D.43-B	DEGROOT GREEN PARK - Proposed Tree Planting
R.13-C	Robertson Playground - Proposed Tree Planting
L.50-E	Lindsey Wilson Park – Park Upgrades – Proposed Tree Planting
S.82-D	St. Vital Skateboard Park – Proposed Tree Planting

E1.3 Bidders are reminded that requests for approval of substitutes as an approved equal or an approved alternative shall be made in accordance with B6.

### TREE REMOVALS

#### E2. TREE REMOVALS

E2.1 The scope of Work includes the removal of deciduous and coniferous trees as identified in attached Drawings.

E2.2 The Contractor shall remove trees in a manner satisfactory to the Contract Administrator or designate and agrees that the Work may be inspected by City personnel.

E2.3 Removal of trees shall be complete to ground level regardless of existing ground cover (e.g. snow, other plant material, etc.) or other conditions except where prior approval is given by the Contract Administrator or designate.

E2.4 Once the removal process is initiated it shall be completed that same Working Day. The Contractor shall remove and/or dispose of all material resulting from the Work immediately by one, or more, of the following methods:

- (a) remove to a designated City of Winnipeg Landfill Site;
- (b) chip and remove material to an appropriate location as per the Contract Administrator or designate direction;
- (c) The costs of all of the above operations are to be born solely by the Contractor.

- E2.5 The Contractor shall repair any damage resulting from the Work listed in E2.4, E2.4(a), E2.4(b) inclusive, but not limited to, damage to turf, other trees, gardens, walkways, fences, etc. and shall report all damage immediately to the owner and the Contract Administrator or designate.
- E2.6 The Contractor shall comply with all Federal and Provincial laws and regulations and all City of Winnipeg by-laws. This shall include, but not be limited to, all aspects of the Manitoba Workplace Health and Safety Act and laws/by-laws affecting streets, safety, hours of work, noise, street blockage, correct use of signage and line clearance regulations of Manitoba Hydro and Manitoba Telephone System.

### **TREE PLANTING IN PARKS**

#### **E3. GENERAL**

- E3.1 This specification shall cover the supply and installation of nursery grown trees in accordance with the working drawings and the Contract documents on all properties that are owned by, or under the jurisdiction of, the City of Winnipeg.
- E3.2 The Contractor shall ensure only experienced personnel, under the direction of a skilled supervisor, shall execute all of the Work. The supervisor shall be on Site at all times during the Work and shall be authorized to make binding decisions on behalf of the Contractor.
- E3.3 It is understood that the Contract Administrator shall consult with the City Forester on matters which do not conform to, or which are not addressed, by these Specifications.
- E3.4 *The City of Winnipeg Standard Construction Specifications* in its entirety, whether or not specifically listed in Form B Prices, shall apply to the Work.
- (a) *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>.
- (b) The version in effect three (3) Business Days before the Submission Deadline shall apply.

#### **PUBLIC SAFETY/TRAFFIC CONTROL**

- E3.5 In accordance with the Manual of Temporary Traffic Control, the Contractor ("Agency" in the manual) shall make arrangements with the Traffic Services Section of the City of Winnipeg to place all temporary regulatory signs. The Contractor shall bear all costs associated with the placement of temporary traffic control devices by the Traffic Services Section of the City of Winnipeg in connection with the works undertaken by the Contractor. The requirements shall include the following:
- (a) The Contractor shall barricade the sidewalk surrounding the Work;
- (b) The Contractor shall maintain traffic flow and ensure that protection is afforded to the road user and that the Contractor's operations shall in no way interfere with the safe operation of traffic.

#### **E4. TREE SITES & LAYOUT**

- E4.1 The park Sites and approximate tree planting locations are found within the attached Drawings. Exact planting locations are to be determined on Site by the Contract Administrator.
- E4.1.1 The Contractor shall obtain all necessary utility clearances prior to the commencement of planting and in a timely manner so as not to jeopardize the schedule of the complete tree planting operation.
- E4.1.2 The Contractor is to comply with the instructions on the utility clearance sheets.
- E4.1.3 Trees are not to be planted directly above underground utilities, unless hydro-excavation techniques are used.

- E4.1.4 Where a specified planting Site conflicts with underground utilities, the Contractor may modify the precise location in compliance with the utility clearances and the following Minimum Distance Guidelines:
- (a) Intersections: 6m Private approaches: 1.5m;
  - (b) Light standards, hydro poles, hydrants, manholes and sewer grates: 3m
- E4.1.5 Where a planting Site must be modified by more than 1 metre, the Contractor must receive prior approval from the Contract Administrator or designate.
- E4.2 All park Sites include the planting of trees within turf areas except for one Site in which trees are to be planted within tree grates (see Drawing F.6-E). The trees located within the tree grates cannot be planted until the paving work within that Site has been completed. This paving work is part of a separate bid opportunity.

## **E5. SUPPLY & PREPLANTING CARE OF TREES**

- E5.1 The Contractor shall be responsible for supplying and transporting trees to the appropriate planting Sites.
- E5.2 The Contractor shall coordinate the shipping of trees and excavation of tree pits to ensure no more than a maximum of a 24 hour time lapse has occurred between the plant material arriving on Site and the installation of that plant material.
- (a) Trees shall be transported with care taken to prevent damage:
    - (i) Protect trees against abrasion, exposure and extreme temperature change during transit;
    - (ii) Avoid binding of trees with rope or wire that would damage bark, break branches or destroy natural shape of tree;
    - (iii) Point of contact with equipment shall be padded;
    - (iv) Give full support to root ball of trees during lifting:
      - (A) Each balled specimen shall be handled with sufficient care, so that the root balls shall not be broken;
      - (B) Broken root balls or root ball consisting of loose soil will not be accepted and shall be replaced;
      - (C) Broken roots of deciduous stock shall be pruned back prior to planting.
  - (b) Trees with broken or damaged trunks or branches are not acceptable. Trees with damaged trunks, however caused, will be rejected. No exceptions shall be made in this respect;
  - (c) Keep roots moist and protected from sun and wind:
    - (i) Trees that cannot be planted immediately shall be well protected against damage and drying out; if necessary, trees shall be heeled-in in a shaded area and watered well.

## **E6. LOCATION AND SCHEDULE OF WORK**

- E6.1 The Contractor's operations shall be limited to the minimum encroachment on private properties necessary for undertaking the Work and he shall be responsible for all damage resulting from his Work on or over private property.
- E6.2 The Contractor shall take such measures as are necessary to ensure safe and convenient pedestrian ingress and egress are maintained to residences.
- E6.3 The Contractor shall promptly report any delay or change to an agreed commencement and completion date to the Contract Administrator.

## **E7. MATERIALS**

- E7.1 The Contractor shall be responsible for the supply of plant material, the safe handling, pick up and delivery of trees to the planting Sites, the supply of soil, water, trunk protection, and T-bars as set forth in these Specifications.
- E7.2 All materials supplied by the Contractor under these Specifications shall be subject to random inspection and testing by the Contract Administrator.
- E7.2.1 The Contract Administrator may reject any material(s) that do not comply.
- E7.2.2 There shall be no charge to the City for any material samples taken for testing by the Contract Administrator.

## **TREES**

- E7.3 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 as mentioned in plant list will be rejected.
- E7.4 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".
- E7.5 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.
- E7.6 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.
- E7.7 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.
- E7.8 Plants larger than specified may be used if approved by the Contract Administrator. The use of such plants shall not increase the Contract price.
- E7.9 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.
- E7.10 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.
- E7.11 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.
- E7.12 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.
- E7.13 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. 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.

E7.14 Plant Material

Quantity	Common Name/botanical name	Size / Remarks
<b>SOUTH PARKS</b>		
2	Fallgold Black Ash / <i>Fraxinus americana</i> 'Fallgold'	Min. 65 mm calliper, 3500mm ht. Single straight trunk. Specimen quality. Well branched head above 1830mm ht. Minimum 800 mm dia. rootball. Two stakes per tree
1	Northern Blaze White Ash / <i>Fraxinus</i> 'Northern Blaze'	Min. 65 mm calliper, 3500mm ht. Single straight trunk. Specimen quality. Well branched head above 1830mm ht. Minimum 800 mm dia. rootball. Two stakes per tree
3	Spring Snow Crabapple / <i>Malus x</i> 'Spring Snow'	Min. 50 mm calliper, 3000mm ht. Specimen quality. Well branched head. Minimum 700 mm dia. rootball. Two stakes per tree
3	American Elm / <i>Ulmus americana</i>	Min. 65 mm calliper, 3500mm ht. Single straight trunk. Specimen quality. Well branched head above 1830mm ht. Minimum 800 mm dia. rootball. Two stakes per tree
3	Delta Hackberry / <i>Celtis occidentalis</i> 'Delta'	Min. 65 mm calliper, 3500mm ht. Single straight trunk. Specimen quality. Well branched head above 1500mm ht. Minimum 800 mm dia. rootball. Two stakes per tree
8	American Basswood / <i>Tilia americana</i>	Min. 65 mm calliper, 3500mm ht. Single straight trunk. Specimen quality. Well branched head above 1830mm ht. Minimum 800 mm dia. rootball. Two stakes per tree
6	Manitoba Maple / <i>Acer negundo</i>	Min. 60 mm calliper, 3500mm ht. Single straight trunk. Specimen quality. Well branched head above 1830mm ht. Minimum 800 mm dia rootball. Two stakes per tree
10	Blackhills Spruce	2400mm ht. Straight trunk. Evenly branched, full bushy tree, no broken leaders, well branched to grade. Two stakes per tree
<b>NORTH PARKS</b>		
1	Manchurian Ash / <i>Fraxinus mandshurica</i>	Min. 65 mm calliper, 3500mm ht. Single straight trunk. Specimen quality. Well branched head above 1830mm ht. Minimum 800 mm dia. rootball. Two stakes per tree
2	Northern Blaze White Ash / <i>Fraxinus</i> 'Northern Blaze'	Min. 65 mm calliper, 3500mm ht. Single straight trunk. Specimen quality. Well branched head above 1830mm ht. Minimum 800 mm dia. rootball. Two stakes per tree
5	Fallgold Black Ash / <i>Fraxinus americana</i> 'Fallgold'	These trees are located in the tree wells. Min. 100 mm calliper, 3500mm ht. Single straight trunk. Specimen quality. Well branched head above 1830mm ht. Minimum 800 mm dia. rootball. Two stakes per tree
7	Discovery Elm / <i>Ulmus davidiana</i> 'Discovery'	Min. 65 mm calliper, 3500mm ht. Single straight trunk. Specimen quality. Well branched head above 1830mm ht. Minimum 800 mm dia. rootball.

		Two stakes per tree
4	Delta Hackberry / <i>Celtis occidentalis</i> 'Delta'	Min. 65 mm calliper, 3500mm ht. Single straight trunk. Specimen quality. Well branched head above 1500mm ht. Minimum 800 mm dia. rootball. Two stakes per tree
4	American Basswood / <i>Tilia americana</i>	Min. 65 mm calliper, 3500mm ht. Single straight trunk. Specimen quality. Well branched head above 1830mm ht. Minimum 800 mm dia. rootball. Two stakes per tree
3	Harvest Gold Little Leaf Linden / <i>Tilia mongolica</i> 'Harvest Gold'	Min. 65 mm calliper, 3500 mm ht. Single straight trunk. Specimen quality Well branched head above 1830mm ht. Minimum 800 mm dia. root ball. Two stakes per tree
1	Amur Maple / <i>Acer ginnala</i>	Min. 50 mm calliper, 3000 mm ht. Multi-stem trunk. Specimen quality. Minimum 700 mm dia. root ball. Two stakes per tree
1	Silver Maple / <i>Acer saccharinum</i>	Min. 65 mm calliper, 3500 mm ht. Single straight trunk. Specimen quality. Well branched head above 1830mm ht. Minimum 800 mm dia. root ball. Two stakes per tree
2	Bur Oak / <i>Quercus macrocarpa</i>	Min. 50 mm calliper, 3500 mm ht. Single straight trunk. Specimen quality. Well branched head above 1830mm ht. Minimum 700 mm dia. root ball. Two stakes per tree
4	<i>Picea pungens</i> 'Hoopsii'	2400mm ht. Straight trunk. Evenly branched, full bushy tree, no broken leaders, well branched to grade. Two stakes per tree
12	Morden Colorado Spruce / <i>Picea pungens</i> 'Morden'	2400mm ht. Straight trunk. Evenly branched, full bushy tree, no broken leaders, well branched to grade. Two stakes per tree

## PLANTING SOIL

### E7.15 The planting soil:

- (a) shall consist of a screened clay textured or loam textured dark soil, a fertile, friable material (neither of heavy clay nor of a very light sandy composition) containing by volume, a minimum of 4% for clay loams and 2% for sandy loams to a maximum 25% organic matter (peat, rotted manure or composted material) and capable of sustaining vigorous plant growth. The pH shall range from 6.0 to 8.0;
- (b) shall be free of any mixture of subsoil, clay lumps and stones over 25 mm in diameter, roots, grass, weeds, construction material, foreign non-organic objects, any form of limestone and other extraneous matter;
- (c) shall not contain couch or crab grass rhizomes;
- (d) may be either on-site soil or imported soil;
  - (i) On-site soil which has been stockpiled can be reused providing that it is shredded or screened prior to being re-spread and that it meets the requirements specified above for soil;
- (e) shall not be blown-in dirt taken from wind erosion sites;
- (f) shall not be taken from agricultural fields where such soil may contain soil incorporated herbicides with lasting residual effects, such as eradican and atrazine; and
- (g) will be subject to tests for nitrate, phosphate, potassium, sulphate, pH, E.C. (salinity), and volume of organic matter, by a testing laboratory designated by the Contract Administrator.



- E7.16 The Contract Administrator reserves the right to reject planting soil not conforming to the requirements of these Specifications.

## **WATER**

- E7.17 The Contractor shall provide water for the watering operation and shall be borne by the Contractor. These costs may include hydrant permit and meter rental fees.
- E7.17.1 Water shall be free of oils, acids, alkalis, salts and other substances that may be detrimental to plant growth. Water suitable for human consumption shall be acceptable without testing.
- E7.17.2 Water from rivers and streams shall not be used without prior approval of the Contract Administrator.
- E7.18 Should the Contract Administrator determine that water quality testing is necessary, an approved testing laboratory shall perform the test at the sole expense of the Contractor.

## **TREE PROTECTION/SUPPORT DURING INSTALLATION**

- E7.19 Upon completion of the planting operation, the Contractor shall slice open on a 45 degree angle, a 100 mm diameter x 300 mm long section of plastic weeping tile material and place around the base of each tree trunk.
- E7.20 Stakes shall be 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-191B. Paint section of stake above ground with 1 coat of green enamel paint.
- E7.21 The guying straps shall be attached in accordance with the drawings referenced in E1.2 and shall be of a material that is non-abrasive to the tree to prevent girdling injury:
- (a) Hose-covered wire, flexible belting or any strong, soft wide strips of material is acceptable.
- E7.22 Where wire is used, ensure ends are twisted tight:
- (a) Protruding ends are unacceptable.

## **MULCH**

- E7.23 The Contractor shall provide mulch. Mulch shall:
- (a) be a clean bark or wood chip free of leaves, branches and other extraneous matter; and
- (b) consist of chips not less than 15 mm nor larger than 75 mm in size and not more than 20 mm deep.

## **E8. TREE PITS**

- E8.1 Tree Pits in Parks shall be excavated using the following methods (see Drawing SCD-514):
- (a) Tree pits shall be excavated using a backhoe, not a tree spade; and
- (b) Tree pits shall be minimum 2 times the diameter of the root ball.
- E8.2 Tree Pits in Hard surface areas within Parks shall be excavated using the following methods (see Drawing SCD-516):
- (a) Remove tree grate if present;
- (b) Existing tree wells shall be excavated by hydro-excavation to achieve sides vertical to the hard surface at a width equal with the edge of the hard surface area up to a maximum of 2 times the root ball width;
- (c) Pit depth shall be such that the top of the root ball is even with the existing grade;
- (d) Replace tree grate if necessary.

- E8.3 The bottom of all excavations shall be protected against freezing.
- E8.4 Tree pits shall only be dug for trees to be planted on that Working Day. No tree pits shall be left open at the end of the Working Day.
- E8.5 Tree planting in tree pits surrounded by hard surfaces is subject to special conditions as stated in E8.2.

## **E9. PLANTING PERIOD**

- E9.1 The Contractor shall not plant trees during periods of extreme heat.
- (a) The City of Winnipeg reserves the right to refuse acceptance of any or all trees failing to meet the above timing restrictions.

## **E10. PLANTING**

- E10.1 The Contractor is expected to plant trees as follows:
- (a) all trees shall be set plumb and shall be placed in the centre of the tree pit;
- (b) trees shall be placed on undisturbed soil and to a depth equal as stated in E8.2(c);
- (c) once the tree has been set in its final position, burlap on the root ball shall be folded back from the top 1/3 of the root ball:
- (i) If a wire basket has been used, it shall be cut off from the top 1/3 of the root ball.
- (ii) All twine shall be removed from the root ball.
- (d) after the root ball is prepared, fill tree pit with planting soil as per E7.15, in layers of 150 mm depth and compact the independent layers of soil by tamping;
- (e) when 2/3 of soil has been placed around tree, fill the tree pit with water;
- (f) allow the water to penetrate into the soil and complete the backfilling of the soil;
- (g) tamp soil around root system to eliminate air voids;
- (h) grade the area around the tree according to the drainage type; and
- (i) all planting areas shall be levelled, raked and edged to give a neat appearance.
- E10.2 Upon completion of the planting operation, the Contractor shall:
- (a) install tree trunk protection (as per E7.19) around the base of each tree trunk;
- (b) install stakes and straps (see E7.20 through E7.22), if deemed necessary;
- (i) Ensure ends of wires are twisted tight so that there are no protrusions.
- (c) if, upon inspection by the Contract Administrator or designate, it is determined that a stake is necessary (eg. windblown tree) the Contractor shall be responsible for installing the stake and strap as requested;
- (d) form a water dish from the soil around the outside edge of the root ball with a berm 100 mm in height:
- (i) soil shall not be piled around the tree trunk.
- (e) install wood chips or other mulch (as per E7.23);
- (f) administer watering:
- (i) watering must be done slowly to ensure that water does not run away from the root zone and so the top 300 mm of the soil around the root system of the tree are well saturated;
- (ii) use a deep root feeder (hard surface boulevards) or low-pressure open flow nozzle and hose (turf boulevards and parks); and
- (iii) the water stream must not gouge out a hole in the soil or mulch.
- (g) secure all necessary utility clearances when watering using a deep root feeder.

## **E11. SITE CLEAN UP**

- E11.1 During the planting operations, all sidewalks, streets, approaches, driveways and properties near or about the planting operations, shall be kept clean at all times by the Contractor.
- E11.2 All clay and in-situ material shall be removed from the Site by the Contractor by the end of the Working Day (if piled in the street) or within 48 hours (if piled on boulevards or in parks).
- E11.3 Upon completion of the Work, the Contractor shall immediately remove all excess material and debris from the Work Site and shall leave the Site in a clean and orderly manner.

## **MAINTENANCE OF NEW TREE PLANTINGS**

### **E12. GENERAL**

- E12.1 The Contractor shall cover the maintenance of trees for a period of two years from the date of the tree planting was completed. The Contractor shall furnish all labour, materials, equipment and services necessary to perform ongoing care of the plant material, which shall include but not be limited to:
- (a) Mulching, in accordance with E7.23 and E13.1(d);
  - (b) Watering, in accordance with E7.17, E7.18 and E13.1(e);
  - (c) Weed Control, in accordance with E13.1(f).

### **E13. METHODS**

- E13.1 The Contractor shall:
- (a) program the timing of operations to plant growth, weather conditions and use of the Site;
  - (b) do each operation continuously and complete within a reasonable time period;
  - (c) store equipment and materials off-site;
  - (d) add additional mulch as required to maintain minimum constant depth of mulch;
    - (i) clean up edges and contain mulch within the designated area;
  - (e) water trees as follows:
    - (i) immediately upon being planted and every week for the first three (3) weeks after planting;
    - (ii) thereafter, watering shall be done every 7 – 14 days between May and October or as frequently as necessary (compensating appropriately for weather) to sustain vigorous plant growth;
    - (iii) by watering slowly to ensure that water does not run away from the root zone and so the top 300 mm of soil around the root system of the tree is well saturated;
    - (iv) by using a deep root feeder (hard-surface planting areas) or low pressure open flow nozzle and hose (parks). The water stream must not gouge out a hole in the soil or mulch;
    - (v) by using the recognized standard for tree watering as approximately 8-10 times during the growing season with the following amounts of water depending on the calliper of the tree – the rule of thumb is 40 litres of water per 25 mm calliper;
    - (vi) by recognizing watering requirements of trees are dependant upon on a number of variables such as tree species, soil type, when planted, and weather including precipitation. These watering requirements are a minimum standard and shall be followed unless otherwise directed by the Contract Administrator or his designate.
    - (vii) by applying a final watering for all trees, regardless of when planted, that shall be completed after temperatures fall below freezing to ensure adequate moisture in root zone at freeze-up;
  - (f) maintain surface of tree pit by hand weeding during the watering process as follows:

- (i) do not allow weeds to establish for a period longer than two (2) weeks; and
- (ii) do not use any herbicides for weed control near trees.

E13.2 The Contractor must inform the Contract Administrator of watering progress and schedule by 9:00 AM each day.

E13.3 The Contractor must inform the Contract Administrator immediately of any equipment breakdown or delay in watering and maintenance. Once a watering cycle is completed, submit a log-sheet to the Contract Administrator identifying the following:

- (a) the location where maintenance Work is carried out; and
- (b) preventative or corrective measures required which are outside Contractors' responsibility.

#### **E14. TREE PROTECTION/SUPPORT**

E14.1 The tree protection collars shall be removed by the Contractor upon completion of the maintenance period.

E14.1.1 In circumstance where the collar appears to be restricting proper tree growth, the Contract Administrator shall assume responsibility for removal.

#### **E15. SITE SAFETY AND TRAFFIC CONTROL**

E15.1 Site Safety and Traffic Control measures shall be carried out in all areas on or adjacent to roadways (see E3.5).

#### **E16. DAMAGE TO PROPERTY**

E16.1 The Contractor shall take every precaution not to damage, injure or mark any existing structures or landscaping on the street allowance or adjacent properties.

E16.2 Should any damage be caused by the Contractor, their employees or equipment, it shall be restored or replaced at the Contractor's expense and to the satisfaction of the Contract Administrator. This applies even if damage results from work done in the process of correcting deficiencies.

#### **E17. TREE MORTALITY**

E17.1 If a tree dies and the Contract Administrator has documentation that it has not been maintained in accordance to this specification, that tree will be replaced and maintained at the sole expense of the Contractor.

E17.2 If a tree dies and the Contract Administrator believes that the tree has been maintained in accordance to this Specification, that tree will be replaced by the City and added to the Contract and the originally specified bid price to be planted and maintained by the Contractor.