



**THE CITY OF WINNIPEG**

# **REQUEST FOR PROPOSAL**

**RFP NO. 436-2017**

**VALLEY GARDENS COMMUNITY CENTRE SPRAY PAD**

## TABLE OF CONTENTS

### PART A - PROPOSAL SUBMISSION

Form A: Proposal	1
Form B: Prices	4
Form C: Economic Analysis	6

### PART B - BIDDING PROCEDURES

B1. Contract Title	1
B2. Submission Deadline	1
B3. Site Investigation	1
B4. Enquiries	1
B5. Confidentiality	2
B6. Addenda	2
B7. Substitutes	2
B8. Proposal Submission	3
B9. Proposal (Section A)	4
B10. Prices	5
B11. Economic Analysis	5
B12. Design Drawings and Component Descriptions	5
B13. Project Workplan	6
B14. Systems Integration	6
B15. Disclosure	6
B16. Qualification	6
B17. Opening of Proposals and Release of Information	8
B18. Irrevocable Offer	8
B19. Withdrawal of Offers	8
B20. Interviews	9
B21. Negotiations	9
B22. Evaluation of Proposals	9
B23. Award of Contract	10

### PART C - GENERAL CONDITIONS

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

### PART D - SUPPLEMENTAL CONDITIONS

#### General

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

#### Submissions

D7. Authority to Carry on Business	2
D8. Safe Work Plan	2
D9. Insurance	2
D10. Performance Security	3
D11. Subcontractor List	3
D12. Shop Drawings and Record Drawings	4
D13. Ordering of Spray Toys, Spray Control System, and Site Amenities	4
D14. Detailed Work Schedule	5

#### Schedule of Work

D15. Commencement	5
D16. Critical Stages	6
D17. Substantial Performance	6
D18. Total Performance	6

D19. Liquidated Damages	6
D20. Scheduled Maintenance	7
<b>Control of Work</b>	
D21. Job Meetings	7
D22. Prime Contractor – The Workplace Safety and Health Act (Manitoba)	7
D23. The Workplace Safety and Health Act (Manitoba) – Qualifications	7
D24. Plant and Materials	7
D25. Safety	8
D26. Site Cleaning	8
D27. Inspection	8
D28. Deficiencies	8
<b>Measurement and Payment</b>	
D29. Invoices	9
D30. Payment	9
<b>Warranty</b>	
D31. Warranty	9
Form H1: Performance Bond	11
Form H2: Irrevocable Standby Letter of Credit	13
Form J: Subcontractor List	15

## PART E - SPECIFICATIONS

<b>General</b>	
E1. Applicable Specifications and Drawings	1
E2. Hazardous Materials	1
E3. Complete Project	1
E4. Site Verification	1
E5. Existing Services and Utilities	2
E6. Pedestrian Safety and Traffic Management	2
E7. Access To Site	2
E8. Permits, Notices, Licenses, Certificates, Laws and Rules	3
E9. Codes and Standards	3
E10. Damage to Existing Structures and Property	4
E11. Tree Protection	4
E12. Pedestrian Safety And Traffic Management	5
E13. Protection of the Survey Infrastructure	5
E14. Site Enclosures	5
<b>Site Development</b>	
E15. Setting Out of the Work	6
E16. Site Preparation and Grading	6
E17. Site Grading	7
E18. Mechanical/Plumbing and Exectrical Systems	7
E19. Spray Features	9
E20. Concrete Spray and Overspray Basin	10
E21. Asphalt Paving	11
E22. Sodding	12
E23. Crusher Fines Paving	12
E24. Multi-Flo in Drainage Trench	13
E25. Fencing	15
E26. Trees, Shrubs, and Ground Covers	16
E27. Landscape Maintenance	17
E28. Site Furniture	19
E29. Commissioning	20
E30. Wood Fibre Surfacing	21
E31. Play structures & Independent Components	23
E32. Swings	25
E33. Foundations	26
E34. Maintenance Kits	26

E35. Poured in Place Concrete Curb and Edging	26
E36. Site Restoration	27

## **PART B - BIDDING PROCEDURES**

### **B1. CONTRACT TITLE**

B1.1 VALLEY GARDENS COMMUNITY CENTRE SPRAY PAD

### **B2. SUBMISSION DEADLINE**

B2.1 The Submission Deadline is 12:00 noon Winnipeg time May 25, 2017.

B2.2 Proposals 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 Proponent may view the Site without making an appointment.

B3.2 The Bidder may request a viewing of the Electrical service in the adjacent building by making arrangements with the Contract Administrator at least five days prior to the Submission Deadline.

B3.3 The Proponent is responsible for determining:

- (a) the location of any utility which can be determined from the records or other information available at the offices of any public authority or person, including a municipal corporation and any board or commission thereof, having jurisdiction or control over the utility;
- (b) the nature of the surface and subsurface conditions at the Site;
- (c) the location, nature, quality or quantity of the materials to be removed or to be employed in the performance of the Work;
- (d) the nature, quality or quantity of the Plant needed to perform the Work;
- (e) the location and condition of existing trees;
- (f) the condition of the adjacent parking lot;
- (g) all matters concerning access to the Site, power supplies, location of existing services, utilities or materials necessary for the completion of the Work; and
- (h) all other matters which could in any way affect his/her Proposal or the performance of the Work.

### **B4. ENQUIRIES**

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

B4.2 If the Proponent finds errors, discrepancies or omissions in the proposal, or is unsure of the meaning or intent of any provision therein, the Proponent 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 Proponent is unsure of the meaning or intent of any provision therein, the Proponent 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 Request for Proposal will be provided by the Contract Administrator to all Proponents 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 Request for Proposal will be provided by the Contract Administrator only to the Proponent who made the enquiry.
- B4.6 The Proponent shall not be entitled to rely on any response or interpretation received pursuant to B4 unless that response or interpretation is provided by the Contract Administrator in writing.

**B5. CONFIDENTIALITY**

- B5.1 Information provided to a Proponent by the City or acquired by a Proponent by way of further enquiries or through investigation is confidential. Such information shall not be used or disclosed in any way without the prior written authorization of the Contract Administrator. The use and disclosure of the confidential information shall not apply to information which:
- (a) was known to the Proponent before receipt hereof; or
  - (b) becomes publicly known other than through the Proponent; or
  - (c) is disclosed pursuant to the requirements of a governmental authority or judicial order.
- B5.2 The Proponent shall not make any statement of fact or opinion regarding any aspect of the Bid Opportunity to the media or any member of the public without the prior written authorization of the Contract Administrator.

**B6. ADDENDA**

- B6.1 The Contract Administrator may, at any time prior to the Submission Deadline, issue addenda correcting errors, discrepancies or omissions in the Request for Proposal, or clarifying the meaning or intent of any provision therein.
- B6.2 The Contract Administrator will issue each addendum at least two (2) Business Days prior to the Submission Deadline, or provide at least two (2) Business Days by extending the Submission Deadline.
- B6.2.1 Addenda will be available on the Bid Opportunities page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/bidopp.asp>.
- B6.2.2 The Proponent is responsible for ensuring that he/she has received all addenda and is advised to check the Materials Management Division website for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.
- B6.3 The Proponent shall acknowledge receipt of each addendum in Paragraph 9 of Form A: Proposal. Failure to acknowledge receipt of an addendum may render a Proposal non-responsive.

**B7. SUBSTITUTES**

- B7.1 The Work is based on the Plant, Materials and methods specified in the Request for Proposal.
- B7.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.
- B7.3 Requests for approval of a substitute will not be considered unless received in writing by the Contract Administrator at least five (5) Business Days prior to the Submission Deadline.
- B7.4 The Proponent shall ensure that any and all requests for approval of a substitute:
- (a) provide sufficient information and details to enable the Contract Administrator to determine the acceptability of the Plant, Material or method as either an approved equal or alternative;

- (b) identify any and all changes required in the applicable Work, and all changes to any other Work, which would become necessary to accommodate the substitute;
  - (c) identify any anticipated cost or time savings that may be associated with the substitute;
  - (d) certify that, in the case of a request for approval as an approved equal, the substitute will fully perform the functions called for by the general design, be of equal or superior substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance;
  - (e) certify that, in the case of a request for approval as an approved alternative, the substitute will adequately perform the functions called for by the general design, be similar in substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance.
- B7.5 The Contract Administrator, after assessing the request for approval of a substitute, may in his/her sole discretion grant approval for the use of a substitute as an “approved equal” or as an “approved alternative”, or may refuse to grant approval of the substitute.
- B7.6 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, to the Proponent who requested approval of the substitute.
- B7.6.1 The Contract Administrator will issue an Addendum, disclosing the approved materials, equipment, methods and products to all potential Proponents. The Proponent requesting and obtaining the approval of a substitute shall be responsible for disseminating information regarding the approval to any person or persons he/she wishes to inform.
- B7.7 If the Contract Administrator approves a substitute as an “approved equal”, any Proponent may use the approved equal in place of the specified item.
- B7.8 If the Contract Administrator approves a substitute as an “approved alternative”, any Proponent bidding that approved alternative may base his/her Total Bid Price upon the specified item but may also indicate an alternative price based upon the approved alternative. Such alternatives will be evaluated in accordance with B22.
- B7.9 No later claim by the Contractor for an addition to the Total Bid Price because of any other changes in the Work necessitated by the use of an approved equal or an approved alternative will be considered.

## **B8. PROPOSAL SUBMISSION**

- B8.1 The Proposal shall consist of the following components:
- (a) Form A: Proposal;
  - (b) Form B: Prices;
  - (c) Form C: Economic Analysis.
- B8.2 The Proposal should also consist of the following components:
- (a) Design Drawings and Component Description in accordance with B12;
  - (b) Project Workplan as per B13
  - (c) Systems Integration & Economic Analysis as per B14
- B8.3 Further to B8.1, all components of the Proposal shall be fully completed or provided in the order indicated, and submitted by the Proponent no later than the Submission Deadline, with all required entries made clearly and completely.

B8.4 Further to B8.2, all components of the Proposal should be fully completed or provided in the order indicated, and submitted by the Proponent no later than the Submission Deadline, with all required entries made clearly and completely.

B8.5 The Bid Submission may be submitted by mail, courier, or personal delivery.

B8.6 If the Bid Submission is submitted by mail, courier or personal delivery, it shall be enclosed and sealed in an envelope clearly marked with the Bid Opportunity number and the Proponent's name and address, and shall be submitted to:

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

B8.6.1 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 Proponent's name and address, and an indication that the contents are part of the Proponent's Bid Submission.

B8.7 Proponents are advised that inclusion of terms and conditions inconsistent with the Request for Proposal, will be evaluated in accordance with B22.1(a).

B8.8 Bids submitted by internet electronic mail (e-mail) or facsimile will not be accepted.

## **B9. PROPOSAL (SECTION A)**

B9.1 The Proponent shall complete Form A: Proposal, making all required entries.

B9.2 Paragraph 2 of Form A: Proposal shall be completed in accordance with the following requirements:

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

B9.2.1 If a Proposal is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B9.2.

B9.3 In Paragraph 3 of Form A: Proposal, the Proponent shall identify a contact person who is authorized to represent the Proponent for purposes of the Proposal.

B9.4 Paragraph 11 of Form A: Proposal shall be signed in accordance with the following requirements:

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



B9.4.1 The name and official capacity of all individuals signing Form A: Proposal should be printed below such signatures.

B9.5 If a Proposal is submitted jointly by two or more persons, the word "Proponent" shall mean each and all such persons, and the undertakings, covenants and obligations of such joint Proponents in the Proposal and the Contract, when awarded, shall be both joint and several.

## **B10. PRICES**

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

B10.2 The quantities listed on Form B: Prices are to be considered approximate only. The City will use said quantities for the purpose of comparing Proposals.

B10.3 The quantities for which payment will be made to the Contractor are to be determined by the Work actually performed and completed by the Contractor, to be measured as specified in the applicable Specifications.

B10.4 Payments to Non-Resident Contractors are subject to Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).

## **B11. ECONOMIC ANALYSIS**

B11.1 The Proponent shall complete Form C: Economic Analysis providing values based upon the Proponents design and local water and electric rates.

## **B12. DESIGN DRAWINGS AND COMPONENT DESCRIPTIONS**

B12.1 The Proponent shall submit drawings that illustrate the proposed design and spray pad equipment, such as plan, perspective and any other submissions to illustrate the design intent.

B12.2 Drawings shall include, at a minimum, and for the site:

- (a) Site context drawings including location and configuration of the spray pad, indication of site services, and any modifications, relocations, and connections that will be considered beneficial.
- (b) Perspective sketches, sections, details and other submissions sufficient to illustrate the nature and overall quality of the design and addressing the following:
  - (i) The overall quality of the design including integration with the surrounding park and amenities;
  - (ii) Concept and functionality of the design and its aesthetic appeal;
  - (iii) Spray toy layout superimposed on spray basin and overspray area showing the manufacturers design spray coverage.
  - (iv) Quality, durability and warranty of materials;
  - (v) Universal design/ Inclusive design;
  - (vi) How the design will work within the constraints
  - (vii) Overall play experiences.
- (c) Mechanical and Electrical system schematics developed in sufficient detail to describe the intended operation.

B12.3 The Proponent shall submit component description and/or graphic or catalogue reference outlining specifications of spray toy and equipment components.

### **B13. PROJECT WORKPLAN**

- B13.1 The understanding and approach to the delivery of the project and the tasks to complete the project on time and in budget are critical. The proposal at this stage should demonstrate the rationale of the design, which at a minimum includes:
- (a) Provide an understanding of the functional and technical issues and considerations, on the project requirements and budget.
  - (b) An organization chart identifying the major team members and showing the relationship, roles and responsibilities of the major team members who will perform the work.
  - (c) Provide a detailed methodology for each stage of the project. Specifics are to include a detailed description of tasks, task assignments, and responsibilities.
  - (d) Provide a proposed project work plan including a Gantt chart, identification of major stages of the work, critical dates and project milestones.
  - (e) Provide a methodology for delivering the project including
    - (i) schedule
    - (ii) quality assurance
    - (iii) budget control and assurance
    - (iv) risk management
    - (v) a description of the proposed commissioning process
    - (vi) and a clear description of the training being proposed including;
      - ◆ Identification of training staff
      - ◆ Syllabus;
      - ◆ Number of training days for each session;
      - ◆ Expected City supplied resources;

### **B14. SYSTEMS INTEGRATION**

- B14.1 A brief description of how the spray pad components will operate including the following:
- (a) Controller sequence(s) showing which features will be operating at the same time and clearly indicating which features will be operated by which controller.
  - (b) Description of controls and brief narrative about how the controls can be adjusted or modified should this prove necessary, as well as anticipated costs for same.
- B14.2 The maintenance schedule for and anticipated maintenance costs associated with the spray pad features being proposed.

### **B15. DISCLOSURE**

- B15.1 Various Persons provided information or services with respect to this Work. In the City's opinion, this relationship or association does not create a conflict of interest because of this full disclosure. Where applicable, additional material available as a result of contact with these Persons is listed below.
- B15.2 The Persons are:
- (a) Murray Lord, Colcat Enterprises (with regard to playground only)

### **B16. QUALIFICATION**

- B16.1 The Proponent 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

Proponent does not carry on business in Manitoba, in the jurisdiction where the Proponent 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.

B16.2 The Proponent and any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

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

B16.3 The Proponent 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);

B16.4 The Proponent 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 Proponent and of any proposed Subcontractor.

B16.5 The Proponent shall provide, on the request of the Contract Administrator, full access to any of the Proponent's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Proponent's equipment and facilities are adequate to perform the Work.

B16.6 Further to B16.3(c), the Proponent shall, within five (5) Business Days of a request by the Contract Administrator, provide proof satisfactory to the Contract Administrator that the Proponent /Subcontractor has a workplace safety and health program meeting the requirements of The Workplace Safety and Health Act (Manitoba), by providing:

- (a) Written confirmation of a safety and health certification meeting SAFE Work Manitoba's SAFE Work Certified Standard (e.g., COR™ and SECOR™) or
  - (i) a copy of their valid Manitoba COR certificate and Letter of Good Standing (or Manitoba equivalency) as issued under the Certificate of Recognition (COR) Program administered by the Construction Safety Association of Manitoba or by the Manitoba Heavy Construction Association's WORKSAFELY™ COR™ Program; or
  - (ii) a copy of their valid Manitoba SECOR™ certificate and Letter of Good Standing (or Manitoba equivalency) as issued under the Small Employer Certificate of Recognition Program (SECOR™) administered by the Construction Safety Association of Manitoba or by the Manitoba Heavy Construction Association's WORKSAFELY™ COR™ Program or
- (b) a report or letter to that effect from an independent reviewer acceptable to the City. (A list of acceptable reviewers and the review template are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>).

B16.7 The Proponent 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 Proponent and of any proposed Subcontractor.

B16.8 The Proponent shall provide, on the request of the Contract Administrator, full access to any of the Proponent's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Proponent's equipment and facilities are adequate to perform the Work.

## **B17. OPENING OF PROPOSALS AND RELEASE OF INFORMATION**

- B17.1 Proposals will not be opened publicly.
- B17.2 After award of Contract, the names of the Proponents and the Contract amount of the successful Proponent will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>.
- B17.3 To the extent permitted, the City shall treat all Proposal Submissions as confidential, however the Proponent is advised that any information contained in any Submission may be released if required by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law or by City policy or procedures (which may include access by members of City Council).
- B17.4 Following the award of Contract, a Proponent will be provided with information related to the evaluation of his/her submission upon written request to the Contract Administrator.

## **B18. IRREVOCABLE OFFER**

- B18.1 The Proposal(s) submitted by the Proponent shall be irrevocable for the time period specified in Paragraph 10 of Form A: Proposal.
- B18.2 The acceptance by the City of any Proposal shall not release the Proposals of the other responsive Proponents and these Proponents shall be bound by their offers on such Work until a Contract for the Work has been duly executed and the performance security furnished as herein provided, but any offer shall be deemed to have lapsed unless accepted within the time period specified in Paragraph 10 of Form A: Proposal.

## **B19. WITHDRAWAL OF OFFERS**

- B19.1 A Proponent may withdraw his/her Proposal without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.
- B19.1.1 Notwithstanding C23.3, the time and date of receipt of any notice withdrawing a Proposal shall be the time and date of receipt as determined by the Manager of Materials.
- B19.1.2 The City will assume that any one of the contact persons named in Paragraph 3 of Form A: Proposal or the Proponent's authorized representatives named in Paragraph 11 of Form A: Proposal, and only such person, has authority to give notice of withdrawal.
- B19.1.3 If a Proponent gives notice of withdrawal prior to the Submission Deadline, the Manager of Materials will:
- (a) retain the Proposal until after the Submission Deadline has elapsed;
  - (b) open the Proposal to identify the contact person named in Paragraph 3 of Form A: Proposal and the Proponent's authorized representatives named in Paragraph 11 of Form A: Proposal; and
  - (c) if the notice has been given by any one of the persons specified in B19.1.3(b), declare the Proposal withdrawn.
- B19.2 A Proponent who withdraws his/her Proposal after the Submission Deadline but before his/her offer has been released or has lapsed as provided for in B18.2 shall be liable for such damages as are imposed upon the Proponent 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.

## **B20. INTERVIEWS**

- B20.1 The Contract Administrator may, in his/her sole discretion, interview Proponents during the evaluation process.

## **B21. NEGOTIATIONS**

- B21.1 The City reserves the right to negotiate details of the Contract with any Proponent. Proponents are advised to present their best offer, not a starting point for negotiations in their Proposal Submission.
- B21.2 The City may negotiate with the Proponents submitting, in the City's opinion, the most advantageous Proposals. The City may enter into negotiations with one or more Proponents without being obligated to offer the same opportunity to any other Proponents. Negotiations may be concurrent and will involve each Proponent individually. The City shall incur no liability to any Proponent as a result of such negotiations.
- B21.3 If, in the course of negotiations pursuant to B21.2 or otherwise, the Proponent amends or modifies a Proposal after the Submission Deadline, the City may consider the amended Proposal as an alternative to the Proposal already submitted without releasing the Proponent from the Proposal as originally submitted.

## **B22. EVALUATION OF PROPOSALS**

- B22.1 Award of the Contract shall be based on the following evaluation criteria:
- |  |             |
|--|-------------|
| (a) compliance by the Proponent with the requirements of the Request for Proposal or acceptable deviation therefrom: | (pass/fail) |
| (b) qualifications of the Proponent and the Subconsultants, if any, pursuant to B16:                                 | (pass/fail) |
| (c) Total Bid Price;   | 10%         |
| (d) Economic Analysis;   | 10%         |
| (e) Design Drawings and Component Descriptions;  | 50%         |
| (f) Project Work Plan;   | 20%; and    |
| (g) Systems Integration  | 10%.        |
- B22.2 Further to B22.1(a), the Award Authority may reject a Proposal as being non-responsive if the Proposal 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 Proposal, or waive technical requirements or minor informalities or irregularities if the interests of the City so require.
- B22.3 Further to B22.1(b), the Award Authority shall reject any Proposal submitted by a Proponent who does not demonstrate, in its Proposal or in other information required to be submitted, that it is responsible and qualified.
- B22.4 Further to B22.1(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.
- B22.4.1 Further to B22.1(a), in the event that a unit price is not provided on Form B: Prices, the City will determine the unit price by dividing the Amount (extended price) by the approximate quantity, for the purposes of evaluation and payment.
- B22.4.2 Further to B22.1(c), the Award Authority may reject a Bid as being non-responsive if it exceeds the budget as shown on Form B: Prices.

- B22.4.3 The Total Bid Price shall be evaluated with a weighing of 10 points out of a total of 100 possible points. As such, the lowest Proponent shall receive the full 10 points, and the second lowest Proponent and subsequent Proponents shall be pro-rated accordingly.
- B22.5 Further to B21.1(d) the Economic Analysis shall be evaluated with a weighting of 10 points out of a possible 100 points.
- (a) The lowest Proponent shall receive the full 10 points, and the second lowest Proponent and subsequent Proponents shall be pro-rated accordingly.
- B22.6 Further to B22.1(d) Design Drawings/Component Descriptions shall be evaluated with a weighting of 50 points out of a total of 100 possible points as per B12.
- B22.6.1 The Design shall be evaluated on the following criteria:
- (i) Quality and nature of the spray events. (10 points)
  - (ii) Diversity of the spray events (10 points)
  - (iii) Layout of the spray events in relation to each other (8 points)
  - (iv) Use of universal design principles (4 points)
  - (v) Relationship of the spray pad with the site context (5 points)
  - (vi) Quality, durability and warranty of materials (10 points)
  - (vii) Drawing Submission including complete Site Plan, clearly showing the location of all spray equipment, limit of overspray, pathways and seating areas. (1 point)
  - (viii) Clarity of drawings, supportive imagery and literature that serve to effectively communicate the intent of the spray toys design and function. (2 points)
- B22.7 Further to B22.1(f) Project Work Plan shall be evaluated with a weighting of 20 points out of a total of 100 possible points as per B13.
- B22.7.1 The Project Work Plan shall be evaluated on the following criteria:
- (i) Consideration of functional and technical issues (10 points)
  - (ii) Clarity and appropriateness of Project delivery schedule (5 points)
  - (iii) History of previous project, product, or installation issues will also be assessed, for projects installed in the last five (5) years, where issues are known. This history will not be taken into account for new Bidders, where there is no history of Work with the City of Winnipeg, or where the product has not been installed on previous City of Winnipeg projects. (5 points)
- B22.8 Further to B22.1(g) System Integration shall be evaluated with a weighting of 10 points out of a total of 100 possible points as per B14.
- B22.8.1 The System Integration shall be evaluated on the following criteria:
- (a) Review of operational considerations (4 points)
  - (b) Maintenance Schedule . (2 points)
  - (c) Use of durable/tamper-resistant materials, low maintenance finishes and connector systems and ease of repair/replacement of the products used with the spray pad area. (4 points)

## **B23. AWARD OF CONTRACT**

- B23.1 The City will give notice of the award of the Contract, or will give notice that no award will be made.
- B23.2 The City will have no obligation to award a Contract to a Proponent, even though one or all of the Proponents are determined to be responsible and qualified, and the Proposals are determined to be responsive.
- B23.2.1 Without limiting the generality of B23.2, 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 Proposal 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.

B23.3 Where an award of Contract is made by the City, the award shall be made to the responsible and qualified Proponent submitting the most advantageous offer.

B23.3.1 Following the award of contract, a Proponent will be provided with information related to the evaluation of his/her Proposal upon written request to the Contract Administrator.

B23.4 The City may, at its discretion, award the Contract in phases.

B23.5 Notwithstanding Paragraph 6 of Form A: Proposal and C4, the City will issue a Letter of Intent to the successful Proponent in lieu of execution of a Contract.

B23.5.1 The Contract documents as defined in C1.1(n)(ii) in their entirety shall be deemed to be incorporated in and to form a part of the Letter of Intent notwithstanding that they are not necessarily attached to or accompany said Letter of Intent.

B22.6 The form of Contract with the City of Winnipeg will be based on the Contract as defined in C1.1(n).

B23.6 Following the award of Contract, a Proponent will be provided with information related to the evaluation of its Proposal upon written request to the Project Manager.

B23.7 If, after the award of Contract, the Project is cancelled, the City reserves the right to terminate the Contract. The Contractor will be paid for all Services rendered up to time of termination.

## PART C - GENERAL CONDITIONS

### C0. GENERAL CONDITIONS

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



## **PART D - SUPPLEMENTAL CONDITIONS**

### **GENERAL**

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

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

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

- D2.1 The Work to be done under the Contract shall consist of construction of a 'spray to drain' spray pad complete with associated paving, site furnishings, and landscaping.
- D2.2 The major components of the Work are as follows:
- (a) New Sewer and Water Connections
  - (b) Spray Pad electrical and mechanical including meter pit and mechanical vault
  - (c) Construction of spray basin
  - (d) Supply and installation of spray toys
  - (e) Associated site paving
  - (f) Associated Site Furnishings and supporting amenities
  - (g) New Playstructure and Swing c.w. Safety surface and curb
  - (h) Associated landscaping
  - (i) Fence

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

- D3.1 The Contract Administrator is Dean Spearman Landscape Architect , represented by:  
Dean Spearman  
Telephone No. 204 261-4137  
Email. dean@spearman.mb.ca
- D3.2 Before commencement of Work, Dean Spearman will identify additional personnel representing the Contract Administrator and their respective roles and responsibilities for the Work.
- D3.3 Bids Submissions must be submitted to the address in B8.

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

- D4.1 Further to C6, 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/her employ.
- D4.2 Before commencement of Work, the Contractor shall identify his/her designated supervisor and any additional personnel representing the Contractor and their respective roles and responsibilities for the Work.
- D4.2.1 Further to C5, 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.

**D5. OWNERSHIP OF INFORMATION, CONFIDENTIALITY AND NON DISCLOSURE**

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

**D6. NOTICES**

- D6.1 Notwithstanding C23.2.2, all notices of appeal to the Chief Administrative Officer shall be sent to the attention of the Chief Financial Officer at the following facsimile number:
- The City of Winnipeg  
Chief Financial Officer  
Facsimile No.: 204 949-1174
- D6.2 Bids Submissions must not be submitted to this facsimile number. Bids must be submitted in accordance with B8.**

**SUBMISSIONS**

**D7. AUTHORITY TO CARRY ON BUSINESS**

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

**D8. SAFE WORK PLAN**

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

**D9. INSURANCE**

- D9.1 The Contractor shall provide and maintain the following insurance coverage:
- (a) commercial general liability insurance, in the amount of at least two million dollars (\$2,000,000.00) inclusive, with The City of Winnipeg and Dean Spearman Landscape Architect added as an additional insured; 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 applicable, Automobile Liability Insurance covering all motor vehicles, owned and operated and used or to be used by the Contractor directly or indirectly in the performance of the Work. The Limit of Liability shall not be less than \$2,000,000 inclusive for loss or damage including personal injuries and death resulting from any one accident or occurrence;
- (c) all risks installation floater, carrying adequate limits to covers all machinery, equipment, supplies and/or materials intended to enter into and form part of any installation.

D9.2 Deductibles shall be borne by the Contractor.

D9.3 The Contractor shall provide the Contract Administrator with a certificate(s) of insurance, **referencing the Bid Opportunity number and/or the Scope of Work D2 and Specifications PART E - to be performed**, 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 the date specified in C4.1 for the return of the executed Contract.

D9.4 The Contractor shall require each of its sub-contractors to provide insurance comparable to that set forth in D9.1(a) and D9.1(b).

D9.5 The Contractor shall not cancel, materially alter, or cause the policy to lapse without providing at least thirty (30) Calendar Days prior written notice to the Contract Administrator.

D9.6 The City shall have the right to alter the limits and/or coverages as reasonably required from time to time during the continuance of this agreement.

#### **D10. PERFORMANCE SECURITY**

D10.1 The Contractor shall provide and maintain performance security until the expiration of the warranty period in the form of:

- (a) a performance bond of a company registered to conduct the business of a surety in Manitoba, in the form attached to these Supplemental Conditions (Form H1: Performance Bond), in the amount of fifty percent (50%) of the Contract Price; or
- (b) an irrevocable standby letter of credit issued by a bank or other financial institution registered to conduct business in Manitoba and drawn on a branch located in Winnipeg, in the form attached to these Supplemental Conditions (Form H2: Irrevocable Standby Letter of Credit), in the amount of fifty percent (50%) of the Contract Price; or
- (c) a certified cheque or draft payable to "The City of Winnipeg", drawn on a bank or other financial institution registered to conduct business in Manitoba, in the amount of fifty percent (50%) of the Contract Price.

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

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

#### **D11. SUBCONTRACTOR LIST**

D11.1 The Contractor shall provide the Contract Administrator with a complete list of the Subcontractors whom the Contractor proposes to engage (Form J: Subcontractor List) at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.

## **D12. SHOP DRAWINGS AND RECORD DRAWINGS**

- D12.1 Shop Drawings will be reviewed by the Contract Administrator and the City for general conformance to the City's requirements and the design intent only.
- D12.2 Shop Drawings are to be reviewed by the Contractor's responsible design personnel for the design prior to submission to the Contract Administrator.
- D12.3 Shop drawings shall be sealed by a professional engineer registered to practice in the Province of Manitoba.
- D12.4 The level of detail and scope of information provided on the shop drawings shall be sufficient to satisfy construction needs and permitting requirements.
- D12.5 Plan drawings submitted shall include the following:
- (a) Name and address of the proposed facility.
  - (b) Scale, north point
  - (c) Date, address, name, professional seal and signature of the design engineer or architect.
- D12.6 Detailed drawings. All detailed drawings shall be drawn to a suitable scale and include the following information:
- (a) Complete construction details, including dimensions, elevations and appropriate cross-sections.
- D12.7 The Contractor shall provide within 30 Calendar days of award, at minimum the following Shop Drawings:
- (a) Spray Pad layout and piping diagrams
  - (b) Electrical drawings including connection to existing service and grounding or spray pad and components.
  - (c) Anchoring drawings regarding the new spray toys.
- D12.8 The Contractor shall maintain, during the course of construction, a complete set of Drawings including the original Bid Opportunity Drawings, any Drawings released by addenda or change order, and the Contractors Shop Drawings.
- (a) These drawings shall have any deviations between the actual built Work and the Drawings noted on them in red as well as the reason for the deviation.
  - (b) These drawings shall be made available to the Contract Administrator for review upon request during the Construction phase of the project.
  - (c) These drawings shall be provided to the Contract Administrator at the date of Substantial Performance.
- D12.9 There shall be no separate measurement or payment for Shop Drawings or Record Drawings.

## **D13. ORDERING OF SPRAY TOYS, SPRAY CONTROL SYSTEM, AND SITE AMENITIES**

- D13.1 The Contractor shall provide the Contract Administrator evidence, to the satisfaction of the Contract Administrator, of having ordered all items and equipment necessary to complete the work from the manufacturer/supplier within seven (7) calendar days of receipt of the purchase order or letter of intent, which ever is received earlier.
- D13.2 This shall include but not be limited to the following items:
- (a) Spray Control System
  - (b) Spray Toys
  - (c) Site Furnishings and Amenities

#### **D14. DETAILED WORK SCHEDULE**

- D14.1 The Contractor shall provide the Contract Administrator a detailed work schedule within seven (7) calendar days of receipt of the purchase order or letter of intent, which ever is received earlier.
- D14.2 This shall identify a schedule with detail acceptable to the Contract Administrator and sufficient to provide for planning, monitoring, and reporting of project progress. It shall include but not be limited to the following:
- (a) Project Award
  - (b) Submittal of Shop drawings and samples
  - (c) Permitting
  - (d) Delivery of Materials
  - (e) Construction Start
  - (f) Demolition and removals
  - (g) Mechanical and Piping, Vault Construction
  - (h) Bases for features
  - (i) Feature installation
  - (j) Site Paving
  - (k) Site Furnishings
  - (l) Landscaping
  - (m) Anticipated Completion Date
- D14.3 Each item shall include an anticipated start date and an anticipated completion date.
- D14.4 Other milestone dates appropriate to this project should also be included to make the Contract Administrator aware of them.

#### **SCHEDULE OF WORK**

##### **D15. COMMENCEMENT**

- D15.1 The Contractor shall not commence any Work until he/she is in receipt of a notice of award from the City authorizing the commencement of the Work.
- D15.2 The Contractor shall not commence any Work on the Site until:
- (a) the Contract Administrator has confirmed receipt and approval of:
    - (i) evidence of authority to carry on business specified in D7;
    - (ii) evidence of the workers compensation coverage specified in C6.15;
    - (iii) the Safe Work Plan specified in D8;
    - (iv) evidence of the insurance specified in D9;
    - (v) the performance security specified in D10;
    - (vi) the Subcontractor list specified in D11;
    - (vii) the Shop Drawings specified in D12;
    - (viii) the evidence of equipment orders specified in D13; and
    - (ix) the detailed work schedule specified in D14.
  - (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.
- D15.3 The Contractor shall not commence the Work on the Site before July 4, 2017.

D15.4 The City intends to award this Contract by July 1, 2017

D15.4.1 If the actual date of award is later than the intended date, the dates specified for Commencement, Critical Stages, Substantial Performance, and Total Performance will be adjusted by the difference between the aforementioned intended and actual dates.

**D16. CRITICAL STAGES**

D16.1 The Contractor shall achieve critical stages of the Work in accordance with the following requirements:

- (a) Regrade existing swail south of existing crusher fines walkway, install culvert and adjust grade on walkway, and sod south of walkway by August 31, 2017
- (b) Installation of concrete spray pad c.w. plumbing and anchors for spray toys by October 31, 2017
- (c) Installation of Sod by May 15, 2018

**D17. SUBSTANTIAL PERFORMANCE**

D17.1 The Contractor shall achieve Substantial Performance by May 31, 2018 .

D17.2 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.

D17.3 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.

**D18. TOTAL PERFORMANCE**

D18.1 The Contractor shall achieve Total Performance by June 15, 2018.

D18.2 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.

D18.3 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.

**D19. LIQUIDATED DAMAGES**

D19.1 If the Contractor fails to achieve critical stages, Substantial Performance or Total Performance in accordance with the Contract by the days fixed herein for same, the Contractor shall pay the City the following amounts per Working Day for each and every Working Day following the days fixed herein for same during which such failure continues:

- (a) Regrade existing swail and sod – Five Hundred dollars (\$500);
- (b) Installation of Concrete Spray Pad – Five Hundred dollars (\$500);
- (c) Installation of Sod – Five Hundred dollars (\$500);
- (d) Substantial Performance – Five Hundred dollars (\$500);
- (e) Total Performance – Five Hundred dollars (\$500).

D19.2 The amounts specified for liquidated damages in D19.1 are based on a genuine pre-estimate of the City's losses in the event that the Contractor does not achieve critical stages, Substantial Performance or Total Performance by the days fixed herein for same.

D19.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

## **D20. SCHEDULED MAINTENANCE**

D20.1 The Contractor shall perform the following scheduled maintenance in the manner and within the time periods required by the Specifications:

- (a) Sod Maintenance as specified in CW3510;
- (b) Tree Maintenance as specified in E20;
- (c) First Winterization of Spray Features as specified in E30.1.
- (d) Second Winterization of Spray Features as specified in E30.1.

D20.2 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**

### **D21. JOB MEETINGS**

D21.1 Regular weekly job meetings will be held at the Site. These meetings shall be attended by a minimum of one representative of the Contract Administrator, one representative of the City and one representative of the Contractor. Each representative shall be a responsible person capable of expressing the position of the Contract Administrator, the City and the Contractor respectively on any matter discussed at the meeting including the Work schedule and the need to make any revisions to the Work schedule. The progress of the Work will be reviewed at each of these meetings.

D21.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he/she deems it necessary.

### **D22. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)**

D22.1 Further to C6.24, the Contractor shall be the Prime Contractor and shall serve as, and have the duties of the Prime Contractor in accordance with The Workplace Safety and Health Act (Manitoba).

### **D23. THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA) – QUALIFICATIONS**

D23.1 Further to B16.6, the Contractor/Subcontractor must, throughout the term of the Contract, have a Workplace Safety and Health Program meeting the requirements of The Workplace Safety and Health Act (Manitoba). At any time during the term of the Contract, the City may, at its sole discretion and acting reasonably, require updated proof of compliance, as set out in B16.6.

### **D24. PLANT AND MATERIALS**

D24.1 Plant and Material that is the property of the City shall not be removed from the Site, disposed of or used except for the purposes of the Work without the prior consent of the Contract Administrator.

**D25. SAFETY**

- D25.1 Further to C6, 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.
- D25.2 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.
- D25.3 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;
  - (d) adequate sanitation measures are taken and facilities provided with respect to the Work.
  - (e) pedestrian and other traffic on any public or private road or waterway is not unduly impeded, interrupted or endangered by the performance or existence of the Work or Plant;
  - (f) fire hazards in or about the Work are eliminated;

**D26. SITE CLEANING**

- D26.1 The Contractor shall maintain the Site and the Work in a tidy condition and free from the accumulation of waste and debris, other than that caused by the City or by other contractors.
- D26.1.1 As the Work progresses, the Contractor shall remove any Plant and Material not required for the performance of the remaining Work. He shall also remove waste and debris other than that caused by the City or other contractors, and leave the Site and the Work clean and suitable for occupancy by the City unless otherwise specified.
- D26.1.2 Total Performance shall not be considered to have been achieved until the Contractor has cleaned up the Site and has removed all Plant, surplus Material, waste and debris, other than that left by the City or other contractors.

**D27. INSPECTION**

- D27.1 Before beginning or resuming operations upon any portion of the Work, the Contractor shall notify the Contract Administrator so as to enable him to arrange for inspection. If the Contractor fails to notify the Contract Administrator, the Contractor shall, if and when required by the Contract Administrator, forthwith take down or expose and redo that portion of the Work required to facilitate inspection. The cost of such taking down or exposure, and redoing, if any, shall be borne by the Contractor.
- D27.2 If and when required by the Contract Administrator, the Contractor shall take down or expose forthwith any portion of the Work where the Contract Administrator determines that the Work is not in accordance with the Contract. The cost of such taking down or exposure, and redoing, if any, shall fall upon the City if the taking down or exposure indicates that the portion exposed was properly performed, but if otherwise the cost shall be borne by the Contractor.

**D28. DEFICIENCIES**

- D28.1 Further to C11, the Contract Administrator may order the Contractor to alter or improve his methods, to increase or improve his Plant, to furnish additional or more suitable Material, or to employ additional or more qualified labour if, at any time, the Contract Administrator determines that:
- (a) the Work is not being, or will likely not be, performed satisfactorily; or



- (b) progress is not being, or will likely not be, maintained in accordance with the work schedule.
- D28.2 If the Work or any part thereof is taken out of the Contractor's control pursuant to C18.7, all Plant and Material, and the interest of the Contractor in all licences, powers and privileges acquired, used or provided by the Contractor under the Contract shall be assigned by the Contractor to the City without compensation to the Contractor.
- D28.3 The City shall have the right to take possession of and use any of the Contractor's material and property of every kind provided by the Contractor for the purpose of the Work, and to procure other Plant or Material for the completion thereof.
- D28.4 When the Contract Administrator certifies that any Plant, Material or any interest of the Contractor referred to in D28.2, is no longer required for the purposes of the Work, or that it is not in the best interest of the City to retain that Plant, Material or interest, it shall revert to the Contractor.

## MEASUREMENT AND PAYMENT

### D29. INVOICES

- D29.1 Further to C12, the Contractor shall submit an invoice for each portion of Work performed. to:

The City of Winnipeg  
Corporate Finance - Accounts Payable  
4th Floor, Administration Building, 510 Main Street  
Winnipeg MB R3B 1B9

Facsimile No.: 204-949-0864  
Email: [CityWpgAP@winnipeg.ca](mailto:CityWpgAP@winnipeg.ca)

- D29.2 Invoices must clearly indicate, as a minimum:
- (a) the City's purchase order number;
  - (b) date of delivery;
  - (c) delivery address;
  - (d) type and quantity of work performed;;
  - (e) the amount payable with GST and MRST shown as separate amounts; and
  - (f) the Contractor's GST registration number.

- D29.3 The City will bear no responsibility for delays in approval of invoices which are improperly submitted.

- D29.4 Bid Submissions must not be submitted to the above facsimile number. Bids must be submitted in accordance with B8.**

### D30. PAYMENT

- D30.1 Further to C12, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

## WARRANTY

### D31. WARRANTY

- D31.1 Notwithstanding C13.2, 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 C13.2.1 or C13.2.2, in which case it shall expire when provided for thereunder.

- D31.1.1 For the purpose of Performance Security, the warranty period shall be one (1) year.
- D31.2 Notwithstanding C13.2, 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.
- D31.2.1 In such case, the date specified by the Contract Administrator for the warranty period to begin shall be substituted for the date specified in C13.2 for the warranty period to begin.

**FORM H1: PERFORMANCE BOND**  
(See D10)

KNOW ALL MEN BY THESE PRESENTS THAT

\_\_\_\_\_  
(hereinafter called the "Principal"), and

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

\_\_\_\_\_ dollars (\$\_\_\_\_\_.)

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

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

RFP NO. 436-2017

VALLEY GARDENS COMMUNITY CENTRE SPRAY PAD

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

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

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

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

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

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

\_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

SIGNED AND SEALED  
in the presence of:

\_\_\_\_\_  
(Witness as to Principal if no seal)

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

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

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

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

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

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

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

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

RE: PERFORMANCE SECURITY – RFP NO. 436-2017

VALLEY GARDENS COMMUNITY CENTRE SPRAY PAD

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

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

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

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

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

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

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

Partial drawings are permitted.

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

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

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

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

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

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

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

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

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

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

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

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



## PART E - SPECIFICATIONS

### GENERAL

#### E1. APPLICABLE SPECIFICATIONS AND DRAWINGS

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

<u>Drawing No.</u>	<u>Drawing Name/Title</u>
<u>L-1</u>	<u>Site Context Plan</u>
<u>L-2</u>	<u>Landscape Scope Plan</u>
<u>L-3</u>	<u>Demolition and Tree Protection Plan</u>
<u>L-4</u>	<u>Layout Plan</u>
<u>L-5</u>	<u>Grading Plan</u>
<u>L-6</u>	<u>Planting Plan</u>
<u>L-7</u>	<u>Playground Plan</u>
<u>L-8</u>	<u>Details</u>
<u>L-9</u>	<u>Applicable Standard City of Winnipeg Details A</u>
<u>L-10</u>	<u>Applicable Standard City of Winnipeg Details B</u>
<u>C-01</u>	<u>Sewer and Water Servicing Plan</u>

#### E2. HAZARDOUS MATERIALS

- E2.1 If asbestos or other hazardous materials are encountered during the Work of the Contract, the Contractor shall stop all work and notify the Contract Administrator immediately. Removal of hazardous materials shall be dealt with by the City and the Contractor shall await further instruction by the Contract Administrator.

#### E3. COMPLETE PROJECT

- E3.1 The Contractor is to deliver a complete project including all permits, inspections, demolition/removals, connections, tie-ins, restorations, etc. required to operate and maintain the project.

#### E4. SITE VERIFICATION

- E4.1 Further to C3.1,
- (a) Prior to commencing actual construction work, check field conditions, obtain and confirm actual site dimensions, examine surface conditions, etc. as required to ensure correct fabrication and execution of the work.
  - (b) Examine previously constructed work. Notify Contract Administrator in writing of any conditions which may prejudice proper completion of this work. Commencement of construction constitutes acceptance of existing conditions, and means dimensions have been considered, verified and are acceptable.



(c) Contractor shall pay all costs for his/her on site review and examination.

E4.2 The City will not be conducting test holes. The Contractor is responsible to make their own interpretation of the soils within the construction area.

(a) Pay all costs for onsite review and examination.

## **E5. EXISTING SERVICES AND UTILITIES**

E5.1 Although the Plans may show the location of existing surface and underground works and services, the City and the Contract Administrator does not assume responsibility for discrepancies between the Plans and the actual locations of the works and services or the completeness of the drawings. The Contractor shall make all requests directly to each utility for the location of their existing works prior to the start of construction in the area

E5.2 Prior to the commencement of construction, the Contractor shall inspect the site and examine all available records and contact all relevant utilities as necessary to determine the location of all existing surface and underground works. Locations of underground structures if shown are based on the best information available. No guarantee is given that all existing locations are exact.

E5.3 The Contractor shall be responsible for and take all necessary precautions to preserve and protect all public utilities (i.e. telephone lines and cables, hydro lines and cables, gas lines, sewer mains and services, water mains and services, etc.) existing drains and surface drains or parts thereof which may be affected by his/her operations.

E5.4 The Contractor shall make all requests directly to each utility for the location of their existing works prior to the start of construction in the area.

E5.5 The Contractor shall indemnify and save harmless the City and the Contract Administrator or his/her Sub-Consultants against damages for consequential loss and against any claim made against the City or the Contract Administrator of any such main, line, conduit or other such structure or utility for any loss or damage in respect of third party claims or which may be suffered by any such City because of damage to any such main, line, conduit, or other such structure or utility, in any way caused by the operations of the Contractor in the performance of this Contract.

## **E6. PEDESTRIAN SAFETY AND TRAFFIC MANAGEMENT**

E6.1 Further to CW 1130, 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/she is Working near them. Any damage caused by the negligence of the Contractor or his/her SubContractors to the adjacent Works or properties, shall be promptly repaired by him at his/her own expense, to the satisfaction of the Contract Administrator.

E6.2 The Contractor shall, during the construction of this project, maintain safe access to the adjacent facilities at all times.

## **E7. ACCESS TO SITE**

E7.1 The Contractor shall co-operate with the City so as to cause the least inconvenience throughout the area at all times.

(a) The Site contains a Community Centre with associated amenities that will be in operation during the construction of this project. The Contractor shall minimize impacts on these operations.

(b) The Site is adjacent to two schools which will be in operation during the construction of the project. The Contractor shall minimize impacts on these operations.

- E7.2 Confine apparatus, the storage of products and the operations of workers to limits indicated by laws, ordinances, permits and by directions of the Contract Administration.
- E7.3 Do not unreasonably encumber site with materials or equipment.
- E7.4 Do not load or permit to be loaded any part of the work with a weight, load or force that will endanger its safety.
- E7.5 Move stored products or equipment which interfere with operations of City.
- E7.6 Obtain and pay for use of additional storage or work areas needed for operations.
- E7.7 Obtain, pay for, and maintain on Site sanitary facilities from startup to Total Performance.
- E7.8 Maintain roads and access in good condition for efficient execution of work.
- E7.9 Maintain the project site during construction.
- E7.10 Be responsible for damage due to weather, vandalism, etc.
- E7.11 Complete works in a manner that shall result in good surface drainage during periods of precipitation.
- E7.12 Maintain project free of accumulated waste, surplus excavated materials and rubbish.
- E7.13 Haul any waste materials including excavated materials from the site and dispose of in a manner acceptable to the Contract Administrator.
- E7.14 Assume full responsibility for the protection and safekeeping of products under the contract, stored on the site.

## **E8. PERMITS, NOTICES, LICENSES, CERTIFICATES, LAWS AND RULES**

- E8.1 Further to C6.12, the Contractor shall give all necessary notices, obtain all necessary permits and pay all fees in order that the Work may be carried out. The Contractor shall submit all plans required by any inspection authority and obtain approval of same before proceeding with the Work, and pay any cost attached to the inspection of such plans.
- E8.2 The Contractor shall comply with all laws, ordinances, rules and regulations that would relate to the Work.
- E8.3 All notices, consents, approvals, statements, authorizations, documents or other communications to the City shall be submitted to the Contract Administrator.
- E8.4 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety Act.
- E8.5 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety Fall Protection guidelines.
- E8.6 The Contractor and Sub-contractors must be fully aware of all Work involving hazardous materials. All Work must be performed in compliance with the Manitoba Department of Labour Workplace Health and Safety Guidelines and all other applicable codes. The Contractor is responsible for the immediate notification to the Contract Administrator of his/her encountering of suspected hazardous material during their course of Work.

## **E9. CODES AND STANDARDS**

- E9.1 Perform work and obtain permits in accordance with the National Codes of Canada and any other code of provincial or local application including City of Winnipeg. In any case of conflict or discrepancy the more stringent requirements shall apply.

- E9.2 Obtain permits and complete work to meet or exceed the requirements of standards, codes and other documents referred to in this specification.
- E9.3 Where the specifications contained herein are more stringent than the applicable code or standard utilize the most stringent.
- E9.4 Equipment and materials to carry CSA, ULC or cUL approval and conform with applicable standards. There will be no exceptions or alternatives.
- E9.5 Where a standard or code of any type is referred to anywhere in the document, the standard or code utilized for all work shall be the most recent whether or not the most recent is specifically shown or listed.

## **E10. DAMAGE TO EXISTING STRUCTURES AND PROPERTY**

- E10.1 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.

## **E11. TREE PROTECTION**

- E11.1 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.
- E11.2 The Contractor shall not stockpile materials and soil or park vehicles and equipment within 2 metres of trees.
- E11.3 Trees identified to be at risk by the Contract Administrator are to be strapped with 25x100x2400 wood planks, or suitable protection as approved by the Contract Administrator.
- E11.4 Excavation shall be performed in a manner that minimizes damage to the existing root systems. Where possible, excavation shall be carried out such that the edge of the excavation shall be a minimum of 1.5 times the diameter (measured in inches), with the outcome read in feet, from the closest edge of the trunk. Where roots must be cut to facilitate excavation, they shall be pruned neatly at the face of excavation.
- E11.5 Operation of equipment within the drip line of the trees shall be kept to a minimum required to perform the Work required. Equipment shall not be parked, repaired, refuelled; construction materials shall not be stored, and earth materials shall not be stockpiled within the drip lines of trees. The drip line of a tree shall be considered to be the ground surface directly beneath the tips of its outermost branches. The Contractor shall ensure that the operations do not cause flooding or sediment deposition on areas where trees are located.
- E11.6 Where tree protection fencing is called for the Contractor shall install orange safety fencing with a minimum height of 1.2m using t-rail metal stakes at a maximum spacing of 2 m o.c.. Safety fencing shall be securely fastened to the trail stake.
- E11.7 Contractor shall maintain tree protection fence until such time as construction is sufficiently well progressed as to ensure that vehicular traffic and movement of heavy materials is no longer necessary to complete the remaining works.

- E11.8 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.
- E11.9 Tree protection shall be paid for at the rate identified for Item "Tree Protection" on Form B:Prices.

## **E12. PEDESTRIAN SAFETY AND TRAFFIC MANAGEMENT**

- E12.1 Further to CW 1130, 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/she is working near them. Any damage caused by the negligence of the Contractor or his/her Sub-Contractors to the adjacent Works or properties, shall be promptly repaired by him at his/her own expense, to the satisfaction of the Contract Administrator.
- E12.2 Ambulance/ Emergency vehicle access must be maintained at all times.

## **E13. PROTECTION OF THE SURVEY INFRASTRUCTURE**

- E13.1 Notwithstanding clause 4 "Persons and municipalities to protect Outline Monuments"; under [The Surveys Act](#), of Manitoba, the Contractor shall be responsible to protect the Survey Infrastructure from damage as a result of the Work.
- E13.2 Further to C6.26 (g), at least 72 hours prior to the commencement of the On-Site Work the Contractor shall contact the City of Winnipeg, Geomatics Services Branch at 204-918-1360 (8:00 am to 4:00 pm Monday to Friday, excluding holidays) to obtain underground clearance. Geomatics Services will locate and mark all known outline survey monuments and geodetic control monuments and confirm the physical condition of those monuments upon completion of construction, at no cost to the Contractor.
- E13.3 Where a survey post, bar or control monument lies in the line of the proposed Work and must be disturbed, the Contractor shall provide the Contract Administrator with 48 hours' notice to permit referencing for future replacement, at no cost to the Contractor. Failure to provide the specified notice shall result in the Contractor paying for all costs associated with replacing or relocating the disturbed outline survey monuments and geodetic control monuments. Survey monuments and geodetic control monuments at or adjacent to the Site, not in the line of the proposed construction that are damaged or disturbed by the Contractor shall be replaced or relocated by the City or its agent and all associated costs shall be paid for by the Contractor.
- E13.4 An approximate estimate of the cost to restore a legal survey monument is \$1,000 per bar and \$3,000 per control monument. Contractors shall ensure their landscaping and other subcontractors are aware of this clearance procedure and the potential restoration costs. Where possible, amounts owed to the City in accordance with the above will be deducted from payments to be made by the City to the Contractor.

## **E14. SITE ENCLOSURES**

- E14.1 Temporary Site enclosures, as determined necessary at the pre-construction meeting or as shown on the Drawings, shall be erected and maintained as required for the duration of the construction period.
- E14.2 At minimum site enclosures shall be provided for the area to be graded and located north of the gravel path while under construction.
- E14.3 Site enclosures shall, at a minimum, consist of sectional, 1.8 m ht, non-climbable metal fencing.
- E14.4 Site enclosure shall be sufficient to isolate and secure the jobsite from the adjacent area.

- E14.5 Site enclosures shall be considered incidental to the Contract Work and will not be separately measured or paid for.

## **SITE DEVELOPMENT**

### **E15. SETTING OUT OF THE WORK**

- E15.1 The Contractor shall be responsible for setting control and completing all grading, underground services, utilities and other work executed under this contract to all lines, elevations, reference points and measurements based on plans, specifications, basic control points and benchmark(s) supplied by Contract Administrator.
- E15.2 The Contractor shall employ competent person(s) to lay out work.
- E15.3 If requested, the Contract Administrator will provide the Contractor with the basic layout plan in AutoCAD dwg format. The Contract Administrator will not provide any survey points, survey data, contours, or DTMs (Digital Terrain Models).
- E15.4 Supply Contract Administrator all Survey data utilized upon request of Contract Administrator.
- E15.5 The Contractor will mark, to the extent he determines to be necessary, the location, alignment and elevation of the Work by means of stakes or marks, for review and approval by the Contract Administrator. The Contractor shall make the completed Works conform to the lines and marks thus approved and indicated.
- E15.6 The Contractor shall notify the Contract Administrator immediately of the disturbance of any such stakes or marks. The cost of correcting any errors arising out of neglect of the Contractor 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.
- E15.7 Before commencing Work, the Contractor shall satisfy him/herself as to the meaning and correctness of all stakes and marks and no claims shall be entertained by the City on account of any alleged inaccuracies. If any error is suspected in the Drawings, 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.
- E15.8 The Contractor shall determine and provide all dimensions and elevations measured from the stakes or marks.
- E15.9 The Contract Administrator shall be advised of the staking of the work layout at least twenty-four (24) hours in advance in order that the layout may be inspected and adjusted as required prior to construction. The cost of correcting any errors arising out of neglect of the Contractor to so notify the Contract Administrator shall be borne entirely by the Contractor.
- E15.10 The Contract Administrator shall only review the stakes and marks for general conformance to the proposed design. The Contractor shall not rely on this review as authoritative or comprehensive review of the staking and shall remain responsible for conformance to the design intent and drawings following this review.
- E15.11 There shall be no separate payment for the layout of the works or the provision of stakes or marks, these items being considered incidental to the items of work being laid out

### **E16. SITE PREPARATION AND GRADING**

- E16.1 This section shall cover the removal of sand, gravel, topsoil and sod, and other items where scheduled for removal. It shall also cover any other demolition and removal necessary to construct the project which may be considered incidental to other items of Work.

- E16.2 The removal of any items shall not occur until after permission to proceed has been received by the Contract Administrator.
- E16.3 Excavated granular material is to be removed from the Site and disposed of in a legally acceptable manner.
- E16.4 Grassed areas specified for removal shall have the grass surface and growing medium (soil) removed to the elevation of subsurface layer (clay). The excavated material shall be removed from the Site and disposed of or recycled in an environmentally responsible and legal manner.
- E16.5 Payment shall be as per Item "Site Preparation" on Form B:Prices, and shall be deemed to include payment in full for all removal and demolition.

#### **E17. SITE GRADING**

- E17.1 This specification shall cover all clearing and grubbing, excavation, stockpiling of topsoil, removal or supply and placement of materials necessary to achieve the grades and drainage patterns documented in the Drawings at the sub grade (mud grade) level.
- E17.2 This specification is supplemental to CW 3010, CW 3110 and CW 3170. Materials and installation are to conform to these standard Specifications.
- E17.3 The Contractor shall establish site grading as per the drawings at the same time as excavating the subcut for the spray pad. Contractor shall immediately follow this with the installation of multi-flo trench drain as per the drawings and provide temporary drainage path from spray pad excavation to the trench drain so as to minimize the risk of rain on the construction schedule.
- E17.4 Site works shall not impede existing drainage patterns unless an alternative drainage pattern acceptable to the Contract Administrator and the appropriate authorities is provided.
- E17.5 All hard surfaces to drain in the direction and slope noted on the Drawings.
- E17.6 Soft surfaces drain and shall not block drainage patterns.
- E17.7 Contractor shall establish grades as per the drawings provided taking care to ensure that areas within the site limit of grading drain to the catch basing as shown on the drawing.
- E17.8 Payment shall be as per Item "Site Grading" on Form B:Prices, and shall be deemed to include payment in full for establishing design mud grades, excavation, fill and any other works necessary to meet design grades.

#### **E18. MECHANICAL/PLUMBING AND ELECTRICAL SYSTEMS**

- E18.1 The spray feature system is to be a drain away system connected to city water service. Connection to City of Winnipeg services as per mechanical drawing. Connection and design of the spray pad system to connect is to be approved by the Contract Administrator and City of Winnipeg prior to start of construction.
- E18.2 Primary control system including activation switch, timers, electronic sequencers and wiring schematics, controllers, valving, pressure regulators, ball valves etc. shall be provided.
- E18.3 Ventilation systems shall be designed to meet current standards described by A.S.H.R.A.E. and applicable
- E18.4 Work to be performed by journeymen skilled tradesmen to the satisfaction of the contract administrator.
- E18.5 All plumbing and electrical must comply to all regulatory authorities that have jurisdiction and manufactures recommended practices.

- E18.6 All connections to existing services necessary to provide a complete working project shall be included. This includes but is not limited to electrical, water, and sewer.
- E18.7 Designs will respect the use of the areas and ensure the comfort and safety of the occupants.
- E18.8 Mechanical markings to be in accordance with the following and approved by the Contract Administrator:
- (i) Canadian General Standards Board (CGSB).
  - (ii) CAN/CGSB-1.60[M89], Interior Alkyd Gloss Enamel.
  - (iii) CAN/CGSB-24.3[92], Identification of Piping Systems
  - (iv) CAN/CGSB-149.1[M95].
  - (v) CAN/CGSB-149.2[M91].
- E18.9 Controls:
- (i) Low lifecycle cost considering initial investment, daily operations, maintenance and expected lifespan
  - (ii) System to have a 'Rain' switch provided on a separate 6 m tall galvanized metal pole so that it does not operate when it is raining. Pole is to be grounded and mounted to a 3m belled concrete pile.
  - (iii) System to drain away so that there is no standing water at any time.
  - (iv) Must comply with current Health regulations for water quality.
- E18.10 Piping
- (i) All fittings to be galvanized or PVC. All fasteners to be Stainless Steel.
  - (ii) All water lines to have proper slope and drain capability and blow out valves for fall servicing.
  - (iii) Water service:
    - (i) To be a new 50 mm  $\varnothing$  connection to the street. All components and controls are to be sized to work with this service.
    - (ii) Water supply line to spray pad to have separate water meter and back flow prevention device from source.
    - (iii) Water supply to be a new connection to the street.
  - (iv) Piping to include a shock arrester.
  - (v) All supply lines to the features to be low pressure poly pipe approved for 100 psi.
  - (vi) Supply line piping is to gravity drain to allow for easy winterization
  - (vii) Drain lines are to be sized to permit draining of basin to prevent standing water.
  - (viii) All drain line piping is to gravity drain.
  - (ix) All PVC underground piping to be minimum of schedule 80.
- E18.11 Drains
- (i) Basin to have minimum two (2) interconnected anti-vortex drains complete with secured covers and sized for the spray basin and overspray.
  - (ii) Basin drains to be a minimum 100 mm diameter and schedule 80 piping or larger if manufacturers design requires.
  - (iii) Basin Drains to be heavy duty non-corroding metal alloy or equally durable fibreglass or plastic construction. If metal is used cover to have a thermal break so that children do not suffer burns from contact on hot days.
  - (iv) Basin drain lines are to be to be a new connection to the infrastructure.
- E18.12 Metering
- (i) Service to work off of a new meter and backflow. Contractor to provide a standard city park meter pit c.w. locking cover in conjunction with backflow and meter.

#### E18.13 Mechanical

- (i) Mechanical to be accommodated in vault to be constructed as per the Drawings.
- (ii) Space is to accommodate mechanical systems with adequate clearance space.
  - (i) Contractor to increase the size of the vault shown on the Drawings as required to suit.
  - (ii) Vault is to be provided with a working sump pit and pump.
- (iii) Controls must be easily accessible.
- (iv) Mountings must be structurally designed.
- (v) Ensure all equipment, fixtures and devices requiring normal maintenance and or cleaning are to be mounted such that they are fully serviceable. Provide necessary isolation access doors, union fittings and the like.
- (vi) Pits, if proposed, must be accessible, easy maintenance and operation and have vandal resistant lockable entry point.

#### E18.14 Electrical

- (i) Connect into existing electrical service in Valley Gardens Community Centre outbuilding (shown on drawing immediately south of existing backstop).
- (ii) All equipment must be CSA approved.
- (iii) Related to the mechanical system requirements.
- (iv) Grounding of all components within water play area.
- (v) To meet all applicable requirements of authorities having jurisdiction.
- (vi) Power Smart Program: The City has a Power Smart Agreement with Manitoba Hydro. Manitoba Hydro has the right to review the design, specifications, and drawings prior to construction. Contractor shall provide documentation normally required for the City to receive a Power Smart Grant from Manitoba Hydro.

#### E18.15 Periodic review during the construction phase

- (a) The Contractors design team shall be responsible for periodic review of construction progress and shall provide the results of said reviews to the Contract Administrator in writing.

#### E18.16 Payment shall be as follows:

- (a) For new service connections as per Item "New Water and Sewer Line c.w. Connection inc. meter pit." on Form B:Prices.
- (b) For Mechanical vault and sump as per Item "Mechanical Vault c.w. Drainage" on Form B:Prices.
- (c) For Spray pad mechanical system as per item "Spray Pad Mechanical and Electrical (valves, piping, controller, drains, etc)" on Form B:Prices.

### E19. SPRAY FEATURES

#### E19.1 In as much as is possible given constraints of budget and space the design shall offer a mix of passive and interactive play

- (a) For all ages but specific anticipated user groups are 0-4 yrs., 5-8 yrs., 9-12 yrs., and caregivers
- (b) Include a passive 'kiddie' area somewhat segregated from the more active play area with some preschool type features.
- (c) The following features should be not be used:
  - (i) Features which have Trip, entanglement, strangulation hazards.
  - (ii) "Ground Stream" type features, particularly those containing low to the ground or movable components.



- (iii) Components with moving parts that may pose a hazard or injury
- (iv) Water cannons or shooting components with high pressure water or components which resemble weapons.
- (v) Components that contain complicated computerized mechanisms.
- (vi) Features should not have handles on them that are wide enough for children to stand on and spin with the feature or that move and might hit a stationary child.

E19.2 Consideration should be given to features/ components that the community can identify with and would enhance the community's desire to take ownership.

E19.3 Water play components:

- (a) Shall be from one manufacturer to assure compatibility of spare parts for fixtures.
- (b) Special consideration will be given to products that offer the ability to remove and relocate components to another site.
- (c) Minimum two Bollard activators: one for family and senior area, and one for infant area. Wireless activators are preferred.
- (d) Minimum of moving parts
- (e) Durable, vandal resistant anchors, finishes, treatments.
- (f) Tall features must be tall enough the people cant hang from them.
- (g) Ease of maintenance
- (h) Adjustable controls – provide details of 'operation time', 'run time', etc. to manage water consumption. Controls to be programmable to allow flexibility in changing spray sequence.
- (i) Bases/Connections should permit the ability to shift components to other bases located in spray pad.
- (j) Component design is to enhance the safety of the spray pad.
- (k) All components to be grounded in accordance with Manufactures requirements and Electrical code.

E19.4 Payment shall be as per item "Spray Pad Toys" on Form B:Prices.

## **E20. CONCRETE SPRAY AND OVERSPRAY BASIN**

E20.1 The Concrete spray basin and apron shall be as sized and laid out as per the Drawings.

E20.2 Site shall be accessible throughout with no curbs blocking access.

E20.3 All surfaces shall be straight to drain

E20.4 Contractor shall coordinate the layout of the fixtures on the spray basin and apron and the details of construction to ensure that:

- (a) Basin shall collect overspray to a minimum of manufacturers specified overspray.
- (b) Concrete pad, designed to support light truck use in a wet environment.
- (c) Sloped to drain towards return inlets. Maximum slope to be 1:15.
- (d) Provide a slip resistant surface suitable for use in this type of installation and acceptable to the City. Surface treatment must strike a balance between non-slip and so rough that it is not comfortable to walk on or will cause scrapes when a child falls.
- (e) Provide drain lines as required.
  - (i) Minimum of 2 drains with anti-vortex covers (secured), or trench drains shall be provided for each drainage basin as appropriate to the design.
  - (i) Deck drains to be sized appropriately to size of basin and fixtures proposed.

- (ii) Drains, access lids, frames, etc. to be hot dipped galvanized.
    - (iii) To be heavy duty non-corroding metal alloy or equally durable fibreglass or plastic construction.
    - (iv) Drain lines are to gravity drain to facilitate winterization.
  - (f) Rebar shall be epoxy coated and sized as per the Drawings
  - (g) Basin shall include an apron which shall drain to the internal drains.
  - (h) Apron shall be sized to collect overspray from the spray devices to a minimum of 50% greater than manufactures stated overspray or to 3m for senior/family spray toys and 1.8m for infant areas, whichever is greater.
  - (i) Manufacturers design spray pattern shall not spray onto apron.
- E20.5 Should the Contractors selection and layout of fixtures, or budgetary considerations during the bid process necessitate adjustments in the layout of the spray pad the Contractor shall submit Shop Drawings for the approval of the Contract Administrator with sufficient detail to:
- (a) Satisfy the permitting authorities.
  - (b) Clearly show that the basin and apron will meet the performance criteria noted in E20.4
  - (c) Show that the proposed change is consistent with the project design intent as evidenced by the Drawings.
- E20.6 Concrete and testing shall be as per CW 3310 R14
- E20.7 Contractor shall prepare three three samples of concrete finishes 60 cm x 60 cm with a light, medium and rough finish. Contract Administer and Community Services / PPD to approve finish samples prior to any concrete being poured.
- E20.8 Payment shall be as per item "Spray and Overspray Basin" on Form B:Prices. Should the Contractor make adjustments as per item E20.5 there shall be no adjustment in the price.

## **E21. ASPHALT PAVING**

- E21.1 This specification covers the supply and installation of asphalt path including all excavation, compaction, geotextile, sub-base and base construction, asphaltic paving, and repair of existing sod to ensure a smooth transition to the pathway.
- E21.2 This specification is supplemental to CW 3110 and CW 3170 and CW 3410. Materials, testing, and installation are to conform to these standard specifications.
- E21.3 Excavated material is to be disposed of off site.
- E21.4 Sub-base, base materials and depths are as noted on drawing.
- E21.5 Asphaltic paving is to be Type 1A. Depth, alignment, grade is as noted on the drawing. Asphalt shall be placed in one lift.
- E21.6 Except as specifically noted on the drawing pathways are to be constructed so as to function with existing drainage patterns and are to have a minimum cross slope of 1%. Contractor is to stake elevations and ensure that they are satisfactory to the Contract Administrator prior to installing base.
- E21.7 Sub-base and base courses are to extend past asphalt as shown on the drawing.
- E21.8 Asphalt is to meet existing asphalt in a neat and precise manner.
- E21.9 Measurement and Payment will be at the contract unit price per square meter for item 'Asphalt Paving' on Form B:Prices. Measurement shall be of the actual area covered by Asphalt. Price shall be payment in full for supplying materials and for performing all operations listed below:

- (a) Excavate in-situ material to accommodate the pavement structure including base and subbase. Disposal of excess material.
- (b) Supply and installation of Geotextile.
- (c) Supply and placement of Crushed limestone Subbase course.
- (d) Supply and placement of Crushed limestone base course.
- (e) Supply and placement of Asphaltic Concrete .
- (f) Repair of grass (tie-in) at edge of newly constructed path.
- (g) Repair of grass (tie-in) at edge of newly constructed paving as may be required.

## **E22. SODDING**

### General Description

- E22.1 This specification covers the removal of existing grass, topsoil or sand, levelling or excavating the area designated to receive sod, supply and installation of topsoil and sod, the topdressing and seeding of seam, edges and areas of minor Site restoration.

### Materials and Methods

- E22.2 Topsoil and sod are to be supplied and installed as per CW 3510-R8 and CW 3540-R3.
- E22.3 Areas to be Sodded are to be laid out on Site and approved by Contract Administrator before commencing Work. Work outside the limits approved by the Contract Administrator will not be measured and will not be paid for under this section but considered incidental to the Work. Incidental Site restoration shall conform to the same Specifications.
- E22.4 Edge where sod it to meet existing sod is to be cleanly cut prior to topsoil spreading. Overlap of new sod and existing turf will not be accepted.
- E22.5 Contractor shall lay sod consistent with the sod pattern provided in the Drawings.
- E22.6 The compacted depth of topsoil shall be 10 cm.

### Measurement and Payment

- E22.7 Measurement and Payment will be at the contract unit price per square meter for item "New Sod c.w. Topsoil" at the unit prices on Form B: Prices. Measurement shall be of the actual area sodded within the limits approved by the Contract Administrator. Price shall be payment in full for supplying materials and for performing all operations listed below:
- (a) Supply and installation of topsoil.
  - (b) Supply and placement of sod.
  - (c) Maintenance of sod.
- E22.8 Payment shall be as per CW 3510

## **E23. CRUSHER FINES PAVING**

### General Description

- E23.1 This specification covers the supply and installation of granular paving including all excavation, compaction, geotextile, sub-base and base construction as well as gravel surfacing, and repair of existing sod to ensure a smooth transition to the paving. Other items necessary to complete this portion of the Work and not noted elsewhere are considered incidental to this Work.

### Materials and Methods

- E23.2 This specification is supplemental to CW 3110, CW 3130 and CW 3170. Materials and installation are to conform to these standard Specifications.
- E23.3 Sub-base, base materials and depths are as noted on drawing.
- E23.4 Excavation is to be reviewed by Contract Administrator prior to the installation of fabric or sub-base.
- E23.5 Sub-base is to be installed and compacted.
- E23.6 Where the granular paving is to pass through an existing grassed surface the Contractor is to cut the sod using a sod cutter at the edges of the new patio prior to excavation.
- E23.7 Except as specifically noted on the drawing areas of granular paving are to be constructed so as to function with existing drainage patterns and are to have a minimum cross slope of 2% and a maximum cross slope of 3%.
- E23.8 Granular paving is to meet existing landscaping, concrete paving and roads in a neat and precise manner.

Measurement and Payment

- E23.9 Measurement and Payment will be at the contract unit price per square meter for 'Crusher Fines Paving' on Form B: Prices.
- E23.10 Where restoration of sod is required and is outside of an area specified for new sod, this shall be considered incidental to the crusher fines paving and will not be measured or otherwise paid for.
- E23.11 Measurement shall be of the actual area covered by granular paving within the limits shown on the Drawings. Price shall be payment in full for supplying materials and for performing all operations listed below:
- (a) Sod cutting adjacent edge of existing sod
    - (i) This item shall be considered to be 10 percent of the total cost.
  - (b) Stripping existing sod or topsoil topsoil.
  - (c) Excavate in-situ material to accommodate the pavement structure including base and subbase.
  - (d) Supply and installation of Geotextile.
  - (e) Supply and placement of Crushed limestone base course.
  - (f) Supply and placement of Crushed surfacing.
  - (g) Compaction
  - (h) Repair of grass (tie-in) at edge of newly constructed paving as may be required.

**E24. MULTI-FLO IN DRAINAGE TRENCH**

- E24.1 This specification shall include both the sub-surface drain in the swail and connecting to the existing catch basin.

E24.1.1 Description

- (a) Sub-surface drain (Subdrain) consists of providing and placing a geocomposite prefabricated drain system as as described on the drawings and herein. Drainage system shall be installed in accordance with these specifications and in close conformity with the locations and dimensions as shown on the plans or specified on site by the Contract Administrator. The quantities of drain as shown may be increased or decreased at the direction of the Contract Administrator based on actual site conditions that occur during construction of the project. Such variations in quantity will

not be considered as alterations in the details of construction or a change in the character of the Work.

#### E24.1.2 Material

- (a) Subsurface drain (subdrain) will be Multi-Flow or approved substitute in accordance with B7. Drainage pipe will be 150 mm (6"). The manufacturer will size and approve all fittings for use with Multi-Flow or approved substitute drainage pipe.
- (b) The drain conduit shall be of flexible, prefabricated, rounded rectangular shaped, composite product. The drain conduit will be wrapped with a non-woven geotextile and will be a non-woven needle-punched construction and consist of long-chain polymeric fibres composed of polypropylene, polyethylene or polyamide. The fibres will be oriented into a multi-directional stable network whereby they retain their positions relative with each other and allow the passage of water as specified. The fabric will be free of any chemical treatment or coating, which reduces permeability and will be inert to chemical commonly found in soil. The geotextile will conform to the following minimum average roll values.

Weight	ASTM D-3776	3.0 - 4.0
Tensile Strength	ASTM D-4632	100 - 130
Elongation %	ASTM D-4632	50 - 70
Puncture, lb	ASTM D-751	35 - 60
Mullen Burst, psi	ASTM D-3786	110 - 215
Trapezoidal Tear, lb	ASTM D-4533	40 - 42
Coefficient of Permeability	ASTM D-4491	.2 - .4 cm/sec
Flow Rate, gpm/ft <sup>2</sup>	ASTM D-4491	100 - 140
Permittivity, 1/sec	ASTM D-4491	1.3 - 2.0
Apparent Opening Size	ASTM D-4751	60/70 Max. US Std Sieve Opening
Seam Strength, lb/ft	ASTM D-4595	100
Fungus	ASTM G-21	No Growth

- (c) The drainage core shall be made of a high-density polyethylene. The core shall be constructed using interconnected corrugated pipes that define and provide the flow channels and structural integrity of the drain. The geotextile shall function only as a filter. The core of the edge drain shall conform to the following physical property requirements.

Thickness, inches	ASTM D-1777	1.0
Flow Rate, gpm/ft*	ASTM D-4716	29
Compressive Strength, psf	ASTM D-1621 (modified sand method)	6000
Pipe Stiffness, pii	ASTM D-2412	100

\* At gradient = 0.1, pressure = 10 psi for 100 hours.

- (d) Fittings
  - (i) The fittings used with the edge drain shall be of a snap together design. In no case shall any drainage product be joined without the use of the manufacturers connector designed specifically for the purpose. Cleanouts will be provided as indicated on the drawing.
- (e) Pipe

- (i) Pipe for drain outlet laterals will be either 75 mm (3") PVC pipe meeting the requirements of ASTM D-2729 or ASTM F-949, or high-density polyethylene pipe meeting the requirements of AASHTO M252.
- (ii) A rodent screen made of 0.3 inch by 0.3-inch square opening size, 0.063-inch gauge, stainless steel or galvanized, welded wire mesh shall be installed in each outlet lateral line. When using galvanized welded wire mesh, the rodent screen shall be galvanized after it has been formed to the shape and dimensions shown on the plans or specified by the Contract Administrator.

**E24.1.3 Backfill for Trenches**

- (i) Backfill will be 6 mm clean stone.
- (ii) Contractor shall supply the Contract Administrator a sample of backfill material at least 5 working days prior to installing the geocomposite. Contractor shall not proceed with geocomposite work until the Contract Administrator has approved the backfill material.

**E24.1.4 Methods**

**(a) Subdrain**

- (i) The layout of the subdrain is to be marked on Site and approved by the Contract Administrator prior to trenching. In general the pipe shall follow the bottom of the swail. Trenches shall be a min. 150mm in width and cut to the depth in order to meet the 'high' end inverts shown on the drawings. Where the tile follows the swail the depth is to be consistent so as to match the slope on the swail.
- (ii) Subdrain is to be laid on the prepared surface to facilitate cross movement of water. Subdrain shall be installed below geotextile and in conformance with details provided.
- (iii) Contractor is to protect subdrain from excessive weight during the duration of construction and to repair and make good any pipe collapsed prior to acceptance.
- (iv) Fittings for the drain will be installed in accordance with the manufacturer's recommendations and Specification.
- (v) Any damaged edge drain or outlet lateral will be replaced or repaired by splicing in an undamaged section of drain at the Contractor's expense. The repair must be in accordance with the manufacturers specification and to the satisfaction of the Contract Administrator.
- (vi) Outfall is to be into existing catch basin where shown on the drawings. Connection to be re-grouted around the drain pipe

**E24.2 Method of Measurement and Basis of Payment**

**E24.2.1 Method of Measurement and payment shall be as follows:**

- (a) Subdrain shall be measured for length and paid for at the rate indicated for "Multi-Flo in Drainage Trench" on Form B:Prices. This price shall include the pipe, trenching, backfill, surface restoration, and connected to existing catch basin and/or emitter.

**E25. FENCING**

**General Description**

**E25.1** The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Fencing and fixed Bollard Work according to the drawings and specifications.

**E25.2** This specification shall cover the supply and installation of the Fence as shown on the Drawings.

**Materials**

- E25.3 All granular backfill material shall conform to CW 3110-R10 and CW3130-R1. All materials supplied under this Specification shall be of a type approved by the Contract Administrator, and shall be subject to inspection and testing by the Contract Administrator.
- E25.4 Posts and Dimensional Lumber are to be ACQ pressure treated (P.T.) pine, No.2 or better, no wane, bark, checking or splitting permitted. Wood shall be smooth and free of rough areas.
- E25.5 Screws shall be stainless steel or ceramic coated and certified for use with ACQ pressure treated wood.
- E25.6 Chain Mesh and metal posts shall conform to CW 3550
- Construction Methods
- E25.7 Layout shall be established on site as per the drawings provided.
- E25.8 Posts shall not be installed until after all rough grading is complete and both the rough grading and the layout and has been reviewed and approved as consistent with the general intend of the design drawings by the Contract Administrator.
- E25.9 Fence shall be constructed as per Details provided.
- E25.10 All timbers shall be cut neatly for a proper fit with no spaces or gaps between. All cuts shall be stained/end cut before being secured. Finished elevations shall ensure that all timbers are smooth, level, set plumb and spaced uniformly.
- E25.11 All posts are to be ground smooth and clean at cut off points.
- Measurement and Payment
- E25.12 Fence shall be measured on a linear metre basis.
- E25.13 Payment shall be as per Form B:Prices for item "Fence" on Form B:Prices for item "Bollard (3.5" dia. Metal c.w. cap)".

## **E26. TREES, SHRUBS, AND GROUND COVERS**

- E26.1 This section shall cover the supply and installation of trees, shrubs, ground covers and other plants.
- E26.2 Trees shall be of the size and type specified in the proposal but in no case shall they be less than 65 mm Ø. Trees which fail to meet this specification will be rejected.
- E26.3 The Contract Administrator reserves the right to inspect trees at their original source and the give direction as to root and branch pruning requirements.
- E26.4 Plant material shall be of quality and sizing consistent with all sections of "Canadian Guide for Nursery Stock" latest edition as published by the Canadian Nursery Trades Association. Plants are to be measured when in their natural position. Height and spread dimensions refer to the main body of the plant and not to the distance from branch tip to branch tip. Measurement of calliper is to be at a height of 15 cm above the base of the tree as measured in the nursery. All other measurements are to be as per Canadian Guide for Nursery Stock.
- E26.5 Trees shall be of number one grade having only sturdy stems that are reasonably straight for type, a well balanced crown and a single dominant leader. Trees shall be well branched, true to type, and structurally sound. Contract Administrator reserves the right to reject any trees that do not meet this criteria or show signs of disease, mechanical damage, insect or rodent damage, sunscald, frost cracks. All parts of the tree shall be moist and show live, green cambium beneath the surface of the bark.

- E26.6 Plants from native stands, woodlots, orchards or abandon nurseries shall be deem 'collected'. The use of collected plants will not be permitted.
- E26.7 Nomenclature for plants specified 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. Names not found within the Standardized Plant Names shall be understood to be in accordance with locally accepted practice. Where there is doubt or ambiguity the Bidder/Contractor shall notify the Contract Administrator and request clarification. The clarification of the Contract Administrator shall be considered final.
- E26.8 Topsoil Planting/Shrub Bed/Backfill mix shall be screened garden soil with a mixture of two parts black loam topsoil, one part sand and one part peat moss.
- E26.9 Shrub beds shall be prepared with a minimum depth of 30 cm of Shrub Bed mix and 10 cm depth of mulch.
- E26.10 Tree stakes shall be heavy duty T rail iron stakes 37 mm x 37mm by 2.4 m primed with one coat of black zinc rich plant paint to CGSB 1GP-181B. Section of stake above ground shall be painted with one coat of black enamel paint.
- E26.11 Planting shall be consistent with details provided on the drawings.
- E26.12 Protection of stock
- E26.13 All nursery stock shall be well protected from damage from the time of digging until the time of planting on Site. Supplier and Installer are to ensure that the root ball is protected from drying out, and that all roots have been cleanly cut.
- E26.14 Transport of nursery stock shall be done in a manner so that trees do not suffer damage during transport. Branches shall be tied to reduce the risk of mechanical damage. Equipment used to handle nursery stock shall be padded. Nursery stock shall be maintained in a moist condition from the time of arrival on Site until the time of planting.
- E26.15 All trees installed as a part of this Contract shall be guaranteed for a period of two years from the recognized completion date. Any plants found in poor condition or dead during this period shall be replaced with stock meeting the original specification and using methods/techniques consistent with the original specification, without cost to the City. During the growing season this replacement shall occur within two weeks of the Contractor being notified of the condition of the plants. In the event that an acceptable replacement tree is not available at the time a replacement is called for the Contractor shall remove the dead plant from the Site within the two-week period and restore the planting hole. The replacement tree shall be installed at the time it becomes available. Excepted is material or items damaged as a result of accidental causes or vandalism, which will not be subject to warranty.
- E26.16 Contract Administrator reserves the right to extend the Contractor's warranty obligations for an additional one year period if, at the end of the initial warranty period leaf development and growth are not sufficient to ensure future survival.
- E26.17 Plants shall be planted in locations determined on Site by the Contract Administrator.
- E26.18 Replacement plant material installed under the terms of the warranty shall be maintained for a period of two years from the date that the replacement plant is installed. At the end of the maintenance period the Contractor is to remove any stakes, guy wires from the Site.
- E26.19 Payment shall be as per Form B: Prices for item "Trees".

## **E27. LANDSCAPE MAINTENANCE**

- E27.1 This section shall cover the maintenance for all sod, shrub beds, and trees and shrubs supplied and installed or transplanted during the course of this Contract.



- E27.2 Sod Maintenance shall be as per CW 3510.
- E27.3 The Contractor shall be responsible for maintaining the plant material from installation for a period of two years from the date of installation or from the date of total performance which ever is later. It is expected that the plants shall be actively maintained from May 1 to October 31<sup>st</sup> of each year.
- E27.4 The replacement of any deciduous or coniferous plant material shall initiate the start of an additional 2 year maintenance on the replaced plant.
- E27.5 Active maintenance is to include;
- (a) Watering
  - (b) Weeding control (Planting locations only)
  - (c) Pest and Disease control
  - (d) Pruning
  - (e) Tree Support and tie maintenance and adjustment
  - (f) Winter protection
- E27.6 Water shall be applied as required to maintain optimum conditions. During dry weather the Contractor should expect to water on a weekly basis. Each tree is to be thoroughly watered when it is watered (40 litres per 25 mm of calliper). Contractor is to avoid over watering by reducing the frequency during wet weather.
- E27.7 Contractor shall maintain tree pits and shrub beds in a weed free condition throughout the maintenance period. Weed should be removed frequently and not left to establish for a period greater than 10 days.
- E27.8 Contractor is to control pests and diseases as required. Contractor shall inform the Contract Administrator prior to applying pesticides and use only those pesticides of low mammalian toxicity. Persons applying pesticides shall have a valid pesticide applicators license and strictly follow manufacturers instructions regarding the application of the chemicals and the safety precautions required to apply them.
- E27.9 Pruning shall be done by persons with a valid Manitoba Tree Pruners license. Pruning shall be as necessary to remove dead or damaged limbs as well as maintain species typical form and healthy growth. Pruning shall be done in accordance with industry accepted methods to standard good practice. In the event of a disagreement the opinion of the Contract Administrator as to what constituted standard good practice shall be considered final.
- E27.10 Tree support and stakes are to be inspected at each weeding/watering to ensure that they are properly adjusted.
- E27.11 At the end of each growing season Contractor is to ensure that tree is properly fitted with rodent protection as per the planting detail.
- E27.12 Maintenance operation are to be diarised. Each diary entry is to contain the following;
- (a) Maintenance Site Forman
  - (b) Date
  - (c) Weather conditions
  - (d) Actions performed
- E27.13 Maintenance of the sodded areas shall be deemed a part of Topsoil, Sod and Shrub Bed preparation and paid for as per CW 3510.

- E27.14 Maintenance of the installed plants shall be paid in the amount specified for “Tree Maintenance” on Form B: Prices prorated to cover that portion of the maintenance actually completed and paid for at the end of each growing season.

## **E28. SITE FURNITURE**

### General Description

- E28.1 This specification shall cover the supply and installation of Benches, Picnic Tables, Bike Racks, Removable Bollard, Park Sign, and Waste Receptacles, as called for on the drawings. The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work as shown and specified herein.

### Materials

- E28.2 All materials supplied under this specification shall be of a type approved by the Contract Administrator, and shall be subject to inspection and testing by the Contract Administrator.
- E28.3 Backless Benches shall be Tache Bench Composite c.w. Arms as per SCD-121C for embedded mount cedartone with metal coloured galvanized, and supplied by the City of Winnipeg FOB Central Manufacturing facility at no cost to the Contractor. They shall be as indicated on the drawings.
- E28.4 Park Benches shall be “Tache Bench – Composite with arms” as per SCD-121A for embedded mount cedartone with metal coloured galvanized, and supplied by the City of Winnipeg FOB Central Manufacturing facility at no cost to the Contractor. They shall be as indicated on the drawings.
- E28.5 Bicycle Rack
- (a) Bike Racks shall be Dumor 125-40 (Contact: GAT Home Company Ltd. – Neil Buller 943-5050), – Galvanized finish, embedment installation or approved equal in accordance with B7
- E28.6 Waste Receptacle(s) is to be Equinox Alpha Maxi or approved equal in accordance with B7. Colour is to be Sandstone. They shall be located as indicated on Drawings.
- E28.7 Round Picnic Table shall be Barkman Patio Table (round) with pebblestone legs and natural seat and top, or approved equal in accordance with B7
- (a) Two of the tables shall be ‘Wheelchair’. Tables shall be fitted with angle bracket and mounted onto the asphalt surface. Orientation of the wheelchair tables so that the wheelchair spot is parallel to the adjacent path of travel.
- E28.8 Accessible Picnic Table shall be Tache style Metal Picnic Table as per SCD-122A, and supplied by the City of Winnipeg FOB Central Manufacturing facility at no cost to the Contractor.
- (a) Contractor shall pour a 10 cm thick concrete pad measuring 150 mm x 1900 mm so that the top of the pad is flush with the adjacent finish surface and anchor the Accessible table by bolting it to the concrete pad.
- E28.9 Removable bollard shall be as per SCD-105C.
- E28.10 Park Sign shall be a double sided park sign as per SCD-153 supplied by the City of Winnipeg at no cost to the Contractor.
- (a) Sign shall show the project name as “Valley Gardens Community Centre Spray Pad” and the site address as “218 Antrum Rd.”
- E28.11 Contact for City supplied site furniture  
Marc Laurin – Forman II

Telephone 204-479-5489

### Construction Methods

- E28.12 Contractor shall obtain Standard Picnic Tables, Park Sign, and Tache benches from the City and deliver to the jobsite.
- E28.13 All other items are to be supply and install.
- E28.14 All fixtures and furnishings are to be installed as per manufactures instructions.
- (a) Install waste receptacle as per Manufacturers recommendation
  - (b) Install Tache Benches as per SCD-121A and SCD-121C
  - (c) Install Standard picnic table as per SCD-122A.
- E28.15 All concrete used in installation is to meet CW 2160.
- E28.16 All furnishings and fixtures to be installed plumb and true to correct elevations and location, as directed the Contract Administrator. The Contractor shall confirm proposed locations of all site furnishings with Contract Administrator prior to installation.
- E28.17 All furnishings and fixtures to be carefully handled so that no parts will be bent, broken or otherwise damaged. Hammering, which will injure or distort fixture, is prohibited.
- E28.18 Picnic Tables are to be securely fastened to asphalt.

### Method of Measurement and Basis of Payment

- E28.19 Measurement and payment shall be for delivery and installation of each as per each items listing on Form B: Prices. Said price shall include all Work necessary to deliver and install each item of Site furniture as well as the cost of providing a crusher fines pad for each item.

## **E29. COMMISSIONING**

### E29.1 System Start-up, First and Second Year Winterization

- (a) Contractor to perform the system start-up in accordance with the information contained in the Operation and Maintenance Manuals in order to have the Work fully operational for public use by the date of Substantial Performance specified herein.
- (b) After the operation of the Work for the season, the Contractor shall perform the first year winterization of the Work and subsequent start-up the following spring
- (c) The Contractor shall perform a second year winterization and subsequent start-up following the second year of operation.
- (d) The Contractor shall provide the Contract Administrator with 48 hours notice prior to commencing the start-up and winterization procedures in order that the City staff may attend.

### E29.2 Operation and Maintenance Manuals

- (a) The Contractor shall provide in a format acceptable to the Contract Administrator three (3) bound copies as well as one electronic copy (in pdf format) detailing the operation and maintenance instructions for all elements of the Construction including:
  - (i) Manufacturers' written instructions, part schedules, warranties, shop drawings, schedules, wire diagram and a listing of persons to contact for repairs during the warranty period.
  - (ii) Descriptions of day to day operations, preventative maintenance, annual and periodic maintenance, and procedures for seasonal shutdown and start-up.

- (b) Manuals shall be submitted as three original copied bound an a three ring notebook complete with tabs to separate each section (first section to be table of contents) and one electronic copy in PDF format submitted on a USB drive.

#### E29.3 Staff Training

- (a) On Site training provided to City pool staff and maintenance personnel in proper operation and maintenance procedures for the system.
- (b) Trainers shall be qualified trades persons or consultants knowledgeable of the equipment and familiar with the installation.
- (c) Legible documentation shall be provided to City staff during the training.
- (d) Training shall be a minimum of one half day duration.

#### E29.4 Record Drawings

- (a) Contractor is to maintain a set of white prints on site during the construction. These are to be continuously updated to accurately record any changes or deviations from the shop drawings including but not limited to buried line location and runs dimensioned from the existing buildings, conduit size etc..
- (b) Prior to requesting Substantial Performance the Contractor shall transfer this information onto a autocad drawing including any necessary corrections required to ensure accuracy, print a set of these drawings and sign them as a certification of accuracy, and provide both the printed set and the autocad drawings to the Contract Administrator.

E29.5 For all commissioning items except the winterization and start-up the Payment shall be as per Form B:Prices at the price for item "Commissioning".

E29.6 For the winterization and start-up the payment shall be annual after a winterization and subsequent start-up at the unit price shown on the Form B:Prices at the price for the item "Fall Winterization and Spring Start-up 2018-19 and 2019-20". This payment shall be understood to include both a fall winterization and a spring start-up and shall be paid at the spring start up following a fall winterization.

### E30. WOOD FIBRE SURFACING

#### E30.1.1 Description

- (a) This specification shall cover the supply and installation of Wood Fibre Surfacing within the Play Area(s) .

#### E30.1.2 Materials

- (a) Wood Fibre product shall be either Zeager Woodcarpet or Fibar FibarSystem 200 or 300 products or substitute in accordance with B6.
- (b) Wood Fibre surfacing shall be supplied by an authorized distributor and delivery slips are to be submitted to the Contract Administrator prior to installation.

- (i) Contact for Woodcarpet:

Zeagar Bros. Inc.

4000 East Harrisburg Pike ·

Middletown, PA 17057

USA

Ph: (1-888) 346-8524 or (717) 944-7481 ·

Fax (717) 944-7681

[sales@zeager.com](mailto:sales@zeager.com)

- (ii) Contact for FibarSystem 200 or 300:
  - The Fibar Group LLC
  - 80 Business Park Drive, Suite 300
  - Armonk, NY 10504-1705
  - USA
  - Ph: (800) 342-2721
  - Fax: (914) 273-8659
  - [info@FibarPlaygrounds.com](mailto:info@FibarPlaygrounds.com)
- (c) If substitute to Zeagar Woodcarpet or Fibar FibarSystem 200 or 300 is proposed, it must meet the following conditions:
  - (i) materials must be IPEMA certified Engineered Wood Fiber
  - (ii) material must consist of random-sized, clean, engineered hardwood chips. Standard wood chips or bark mulch are not acceptable.
  - (iii) materials must meet or exceed ASTM F1292 standards for impact attenuation
  - (iv) materials must be certified by the CSA and approved for playground use
  - (v) materials must comply with ASTM F1951 Standard Specification for Determination of Accessibility of Surface Systems Under and Around Playground Equipment
  - (vi) materials must be covered by \$10,000,000.00 product liability insurance as well as provide a minimum 10 year warranty against loss of resiliency
- (d) Wood Fibre surfacing shall include wood fibre, filter cloth, subsurface drainage system and mats under swings and ends of slides.
- (e) Mats are to be installed directly on top of the geotextile fabric and secured in place with two (2) duckbill anchors per mat.

### E30.1.3 Construction Methods

- (a) Wood Fibre shall be installed within the play areas, as defined by the timber edging to ensure a minimum depth of 200 mm after compaction (min. 300 mm prior to compaction). In the case where proposed play equipment includes a maximum fall height greater than 2.4m (8'), depth of material to directly correspond to maximum fall height of play equipment in accordance with manufacturer's specifications.
- (b) The installation of the Wood Fibre shall be done immediately after the play equipment has been installed.
- (c) Installation of entire system, including fibre, filter cloth, subsurface drainage and mats under swings and slide ends shall be done according manufacturer's instructions. Adequate drainage within play equipment area must be ensured as per same.
- (d) Unless otherwise shown on the Drawings or instructed by the Contract Administrator, Subsurface of play area shall be graded to drain to one edge of the play area, and area cleared of any debris which inhibit proper drainage or installation of products. 150mm geocomposite drain pipe shall be installed to carry water from the manufacture recommended subsurface drainage system within the play area to run outside of the play area perimeter to drain towards an existing catch basin or low area, as per instruction by the Contract Administrator. The cost for the entire sub-drain system, manufacturer approved drainage layers, etc, shall be incidental to the cost for the safety surfacing.
- (e) Filter fabric must be cut and fit around playground equipment footings and overlap seams by 300mm.
- (f) Installation shall be done by equipment sized to suit the Work being done and the Wood Fibre shall be spread by hand as necessary in the immediate vicinity of the play

equipment so as not to damage same. The play equipment shall be swept clean to the satisfaction of the Contract Administrator after installation of the Wood Fibre.

#### **E30.2 Method of Measurement and Basis of Payment**

##### **E30.2.1 Method of Measurement shall be as follows:**

- (a) Protective Surfacing will be measured on a Square Meter Basis. That measurement shall be deemed to include the supply and installation of a new Wood Fibre Play Safety Surfacing System inc. drainage layer, required Mats and Fabric.

##### **E30.2.2 Basis of Payment shall be as follows:**

- (a) Protective Surfacing will be paid for at the price per square meter, as indicated on Form B: Prices. This price shall be full payment for supplying all labour, equipment and materials, and performing all operations herein described and all other items incidental to the Work and as accepted by the Contract Administrator.

### **E31. PLAY STRUCTURES & INDEPENDENT COMPONENTS**

#### **General Description**

- E31.1 This specification shall cover the supply and installation of one or more Play structures and independent components as specified herein.
- E31.2 All play equipment shall be compliant with CSA standard Z614-2014 revised September 2016, and shall be sited with required safety and non-encroachment zones, and placed within areas of safety surfacing as per CSA Z614-2014.
- E31.3 Play equipment shall be Henderson equipment as shown on the drawings or equal approved in accordance with B7.
- E31.4 Play equipment shall be installed in the play area as shown on the Drawings. The play equipment and their safety zones must fit into the proposed play areas as shown on Drawings. Play equipment supplier shall confirm that the equipment fits within the proposed play space c.w. required safety zones prior to the play curb being poured.

#### **Materials**

##### **E31.5 Posts / Caps**

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

##### **E31.6 Decks (if applicable)**

- (a) All decks shall be manufactured from vinyl-coated perforated steel or a steel core composite. Deck heights may vary to a maximum height of 6'.

E31.7 Clamping System

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

E31.8 Handrails, Safety Rails and Handloops (if applicable)

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

E31.9 Hardware

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

E31.10 Poly Components

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

E31.11 Slides (if applicable)

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

E31.12 Each play structure shall have kick plates and hand loops as required to meet the most recent Canadian Standards Association Standards.

Installation

E31.13 Play structures shall not be installed until after the play area subgrade has been completed and the subgrade has been accepted by the Contract Administrator.

E31.14 Play equipment shall be installed as per manufacturer's specifications and in accordance with the most recent Canadian Standards Association Standards.

E31.15 Contractor shall ensure that play structures are installed at a height consistent with the proposed finished height of the safety surfacing.

E31.16 All posts and other vertical items shall be plumb and true to vertical, if so designed.

E31.17 All decks shall be level, if so designed.

E31.18 Play structure shall be secured and rendered unusable until safety surfacing is in place.

Method of Measurement and Basis of Payment

E31.19 Basis of Payment shall be as follows:

Play Structures, Independent Play Components and Freestanding Panels will be paid for at the Contract lump sum price for "Play Equipment" on Form B: Prices. This price shall be full payment for supplying all labour, equipment and materials, and performing all operations herein described and all other items incidental to the Work and as accepted by the Contract Administrator.

## **E32. SWINGS**

### **General Description**

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

- E32.1 All Swings shall be compliant with CSA standard Z614-2014 revised September 2016, and shall be sited with required safety and non-encroachment zones, and placed within areas of safety surfacing as per CSA Z614-2014.

### **Materials**

- E32.2 New Swings shall be;

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

- E32.3 Seats shall be;

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

- E32.4 Chains shall be heavy duty 4/0 straight link galvanized steel chain, c.w. double clevis and bolt links or approved substitute in accordance with B6.

- E32.5 Yoke clamps shall be either one piece construction and fabricated from 8 gauge RS40 Galvanized steel or two piece, compression clamping cast aluminium or galvanized metal with baked on polyester powder coating. They shall be complete with tamper proof hardware.

- E32.6 Swing Hangers shall be fabricated from galvanized malleable iron and have oil impregnated bearings pressed in. Swing hangers shall be anti-wrap.

- E32.7 All fabrication cuts, drill holes, and weld joints shall be sprayed with a corrosion resistant coating and the bottom end of the posts shall be sealed with a moisture barrier.

### **Installation**

- E32.8 Swings shall not be installed until after the play area subgrade has been completed and the subgrade has been accepted by the Contract Administrator.

- E32.9 Swings shall be installed according to manufactures recommendations and in a manner consistent and in accordance with the Canadian Standards Association Guidelines.

- E32.10 Swings shall be secured and rendered unusable until safety surfacing is in place.

### **Method of Measurement and Basis of Payment**

- E32.11 Basis of Payment shall be as follows:

Swings will be paid for at the Contract lump sum price for "8' Two Bay Swings c.w. 2 belt and 2 infant seats and anti-wrap hangers" on Form B: Prices. This price shall be full payment for supplying all labour, equipment and materials, and performing all operations herein described and all other items incidental to the Work and as accepted by the Contract Administrator.



### **E33. FOUNDATIONS**

#### General Description

- E33.1 All playground equipment posts, bases and anchors are to be set in concrete footings or piles to ensure stability and prevent frost heaving. The current Standard Construction Specifications of the City of Winnipeg, CW 2160 - latest revision - Concrete to be used in Underground Works, is to be utilized in the installation of the concrete works for all below ground components.
- E33.2 An alternative to concrete footings or piles that may be approved includes a welded and secured rail mounting system.

#### Materials

- E33.3 The specific concrete requirements shall be:
- (a) Sulfate resistant, Type 50 Cement;
  - (b) 28 day compressive strength of 30 Mpa;
  - (c) maximum aggregate size of 20mm, nominal;
  - (d) slump 80 +/- 20mm;
  - (e) maximum water/cement ratio 0.49.

#### Installation

- E33.4 All posts and supports shall be centred in the concrete footing such that there is a complete collar of concrete around each post and support. Where posts are not perfectly centred there should be a minimum of 2" concrete at any point around the post.
- E33.5 All concrete footings for play equipment shall be a minimum of 3' depth, or in accordance with Manufacturer's specifications, whichever is greater.

#### Method of Measurement and Basis of Payment

- E33.6 Method of Measurement shall be as follows:
- (a) Foundations shall be incidental to the measurement of Playstructures and Independent Components listed above and as shown on Form B: Prices.
- E33.7 Basis of Payment shall be as follows:
- (a) No separate payment shall be made for play equipment foundations.

### **E34. MAINTENANCE KITS**

- E34.1 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.
- E34.2 There shall be no payment for the maintenance kits.

### **E35. POURED IN PLACE CONCRETE CURB AND EDGING**

- E35.1 This section shall cover the supply and installation of the poured in place concrete curb for the Site entries as well as the poured in place concrete edging for the playground.
- E35.2 Concrete shall be Type 1 as per City of Winnipeg Standard Construction Specifications section 3310.
- E35.3 Granular base shall be 20 mm diameter crushed limestone.

- E35.4 Reinforcing steel shall be 12m. with 10 m ties at 600 mm O.C.
- E35.5 Concrete is to be trowel finish. All exposed edges are to be bullnose as shown on the drawings.
- E35.6 Concrete edging and curb shall have saw cut control joints at 1500 mm O.C. and at all corners.
- E35.7 Curbs and edging are to be measured per linear meter actually installed on the Site and shall be paid for at the Unit Price for "Concrete Play Curb" on FormB: Prices.. This payment shall be understood to include all concrete, excavation, base, reinforcing, compaction, placement and finishing.

**E36. SITE RESTORATION**

- E36.1 Total Performance of the Work shall not be attained until the Contractor has cleaned up the Site and has removed all tools, equipment, waste, debris and surplus foundation earth to the satisfaction of the Contract Administrator. Unless otherwise specified, and as a condition of Total Performance the Contractor shall restore all areas of the Site beyond the established limit of Work, which have been disturbed by the Contractor's operations to as good as or better than the original condition to the satisfaction of the Contract Administrator. The Contractor shall pay all costs associated with this Work