



THE CITY OF WINNIPEG

REQUEST FOR PROPOSAL

RFP NO. 571-2017

**FOR THE DESIGN AND CONSTRUCTION OF OLD EX/NORTH END CENTENNIAL
RECREATION CENTRE SPRAY PAD**

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BIDDING PROCEDURES

B1. CONTRACT TITLE

- B1.1 FOR THE DESIGN AND CONSTRUCTION OF OLD EX/NORTH END CENTENNIAL RECREATION CENTRE SPRAY PAD

B2. SUBMISSION DEADLINE

- B2.1 The Submission Deadline is 12:00 noon Winnipeg time, July 19, 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 Proponent shall not be entitled to rely on any information or interpretation received at the Site Meeting unless that information or interpretation is the Proponent's direct observation, or is provided by the Contract Administrator in writing.
- 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) all matters concerning access to the Site, power supplies, location of existing services, utilities or materials necessary for the completion of the Work; and
 - (f) 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 D3.14.
- 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 Request for Proposal 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.

B6.3 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>.

B6.4

B6.5 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.
- B7.7 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.
- B7.8 If the Contract Administrator approves a substitute as an “approved equal”, any Proponent may use the approved equal in place of the specified item.
- B7.9 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.
- B7.10 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 descriptions as specified in B12;
 - (b) Project Work Plan as specified in B13;
 - (c) Systems Integration as specified in 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, to constitute a responsive Proposal.
- 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 Proponents should submit one (1) unbound 8.5” x 11” original (marked “original”) including drawings and six (6) copies (copies can be in any size format) for sections identified in B8.1 and B8.2.

- B8.6 Proposal format, including type of binding, number of pages, size of pages and, font, etc., will not be regulated, except that the Proposal should contain a table of contents, page numbering and should be in the Sections identified above. Proponents are encouraged to use their creativity to submit a Proposal which provides the requested information for evaluation and other information which illustrates the strength of their team.
- 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 The Proposal shall be submitted enclosed and sealed in an envelope/package clearly marked with the RFP number and the Proponent's name and address.
- B8.9 Proposals submitted by facsimile transmission (fax) or internet electronic mail (e-mail) will not be accepted.
- B8.10 Proposals shall be submitted to:
The City of Winnipeg
Corporate Finance Department
Materials Management Division
185 King Street, Main Floor
Winnipeg MB R3B 1J1
- B8.11 Any cost or expense incurred by the Proponent that is associated with the preparation of the Proposal shall be borne solely by the Proponent.

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.
- B9.3 If a Proposal is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B9.2.
- B9.4 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.
- B9.5 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.

B9.6 The name and official capacity of all individuals signing Form A: Proposal should be printed below such signatures

B9.7 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 should complete Form C: Economic Analysis providing values based upon the Proponent's design and local water and electric rates.

B12. DESIGN DRAWINGS AND COMPONENT DESCRIPTIONS

B12.1 The Bidder's team is requested to develop the detailed concept design and costing for the project based on the information in the RFP, conceptual drawings and other information provided.

B12.2 Drawings shall include, at a minimum:

- (a) Site context drawings including location and configuration of the spray pad and spray features in association with the site works as represented in the preliminary concepts provided, indication of site services, and any connections that are required or 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;
 - (ii) Concept and functionality of the design and its aesthetic appeal;
 - (iii) Quality, durability and warranty of materials;
 - (iv) Universal design / Inclusive design;
 - (v) How the design will work within the constraints of the existing conditions.
 - (vi) Overall play experience including quantity and quality of spray features.
- (c) Spray feature descriptions and graphic or catalogue reference.

B13. PROJECT WORK PLAN

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, and
 - (vi) 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 sequencing 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 explanation about how the controllers can be adjusted or modified should this prove necessary, as well as anticipated costs for same.
- B14.2 The maintenance schedule and anticipated maintenance costs associated with the spray pad features and mechanical system 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)

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);
 - (d) all Engineers are to be licensed to practice in the province of 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 The Proponent is advised that any information contained in any Proposal 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.

B19.2 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.

B19.3 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.

B19.4 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 B19.4(b), declare the Proposal withdrawn.

B19.5 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 Subcontractors, 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% |
| (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.
- B22.5 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.
- B22.6 Further to B22.1(b), the total bid price shall be evaluated with a weighting of 10 points out of a possible 100 points. As such, the lowest bidder shall receive the full 10 points, and the second lowest bidder and subsequent bidders shall be pro-rated accordingly. A bidder who exceeds the budget shown on Form B: Prices will receive zero points.
- B22.7 If, in the sole opinion of the City, a Proposal does not achieve a pass rating for B22.1(a) and B22.1(b), the Proposal will be determined to be non-responsive and will not be further evaluated.
- B22.8 Further to B22.1(d) economic analysis will be evaluated with a weighting of 10 points out of a possible 100 points and in accordance with B10.
- (a) The lowest proponent shall receive the full 10 points, and the second lowest Proponent and subsequent Proponents shall be pro-rated accordingly.
- B22.9 Further to B22.1(e) design drawings and component descriptions will be evaluated with a weighting of 50 points out of a total of 100 points and in accordance with B11.

- (a) Connection of new spray park with existing site and site context and constraints. (20 points)
 - (b) Quality, nature & diversity of the play events and the interaction between components. Implementation of a consistent theme if a theme is deemed a part of the proposal (10 points)
 - (c) Use of universal design principles and overall site connectivity between uses, use of spaces and connection to park area (10 points)
 - (d) Quality, durability and warranty of materials (10 points)
- B22.10 Further to B22.1(f) Project Work Plan will be evaluated with a weighting of 20 points out of a possible 100 points and in accordance with B12.
- (a) Consideration of functional and technical issues (5 points)
 - (b) Organizational chart (4 points)
 - (c) Clarity and appropriateness of Project delivery schedule (work plan) (4 points)
 - (d) Consideration of project delivery methodology (3 points)
 - (e) History of previous projects, product or installation issues within the last five (5) years, where issues are known. (4 points)
- B22.11 Further to B22.1(g) Systems Integration will be evaluated with a weighting of 10 points out of a possible 100 points and in accordance with B13.
- (a) description of how spray pad components will operate (3 points)
 - (b) anticipated daily water consumption (5 points)
 - (c) maintenance schedule and costs (2 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 Following the award of Contract, a Proponent will be provided with information related to the evaluation of its Proposal upon written request to the Contract Administrator.
- B23.4 If, after the award of Contract, the Project is cancelled, the City reserves the right to terminate the Contract. The Proponent 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.

The *General Conditions for Construction* are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at http://www.winnipeg.ca/matmgt/gen_cond.stm

C0.2 A reference in the 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 the Design and Construction of spray pads and features, concrete sidewalks

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

- (a) Design of all Site Works;
- (b) Permitting for all Works;
- (c) Design and construction of concrete spray pad with all spray features and all associated fixtures, drains, piping, and all required mechanical and electrical works;
- (d) Construction of Site Works;
- (e) Supply and installation of site furniture

(a) Universal Design Policy

<http://clkapps.winnipeg.ca/DMIS/DocExt/ViewDoc.asp?DocumentTypeId=2&DocId=3604>

D3. DEFINITIONS

D3.1 When used in this Request for Proposal:

- (a) **"Proposal"** means the offer contained in the Proposal Submission;
- (b) **"Spray Features"** means small outdoor aquatic components that stimulate interactive and creative play. Spray features may include spray columns, dumping buckets, ground sprays, spray faces, spirals, loop-throughs, and themed structures such as flowers, trees, animals, nautical, etc. With zero water depth and a flat surface, the spray feature area conforms to Universal Access guidelines and eliminates the risk of drowning. Such Spray Features although usable by all ages, tends to service the 0-12 age group;
- (c) **"Design Team"** shall refer to the contractors and consultants responsible for the design on the project. This shall include Engineers licensed to practice in Manitoba for each specific component of the project.

D4. CONTRACT ADMINISTRATOR

D4.1 The Contract Administrator is McGowan Russell Group, represented by:

Jackie Wilkie

Landscape Architect

Telephone No. 204- 204 956-0396

Email: [jwilkie @cgowanrussell.com](mailto:jwilkie@cgowanrussell.com)

D4.2 Before commencement of Work, Ms. Wilkie will identify additional personnel representing the Contract Administrator and their respective roles and responsibilities for the Work.

D4.3 Bids Submissions must be submitted to the address in B8.

D5. CONTRACTOR'S SUPERVISOR

- D5.1 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.
- D5.2 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.

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.

D6. OWNERSHIP OF INFORMATION, CONFIDENTIALITY AND NON DISCLOSURE

- D6.1 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.
- D6.2 The Contractor shall not make any public announcements or press releases regarding the Contract, without the prior written authorization of the Contract Administrator.
- D6.3 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.
- D6.4 A Contractor who violates any provision of D5 may be determined to be in breach of Contract.

D7. NOTICES

- D7.1 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

- D7.2 Bids Submissions must not be submitted to this facsimile number. Bids must be submitted in accordance with B8.**

D8. FURNISHING OF DOCUMENTS

- D8.1 Upon award of the Contract, the Contractor will be provided with five (5) complete sets of the Request for Proposal. If the Contractor requires additional sets of the Request for Proposal, they will be supplied to him at cost.

SUBMISSIONS

D9. AUTHORITY TO CARRY ON BUSINESS

- D9.1 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.

D10. SAFE WORK PLAN

- D10.1 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.
- D10.2 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>.

D11. INSURANCE

- D11.1 The Contractor shall provide and maintain the following insurance coverage:
- (a) commercial general liability insurance, in the amount of at least two million dollars (\$2,000,000.00) inclusive, with The City of Winnipeg added as an additional insured; such liability policy to also contain a cross-liability clause, non-owned automobile liability and products and completed operations cover, to remain in place at all times during the performance of the Work and throughout the warranty period;
 - (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 of construction insurance, including testing and commissioning, in the amount of 100% of the total contract price, written in the name of the Contractor and the City of Winnipeg and to remain in place at all times during the performance of the Work.
- D11.2 The Contractor shall ensure that the Design Team hired in connection with the design services provide and maintain the following minimum insurance requirements:
- (a) Commercial general liability insurance in the amount of at least \$2,000,000.00 per occurrence with a minimum of \$2,000,000.00 products and completed operations aggregate and \$5,000,000.00 general aggregate. Cross liability clause, contractual liability and The City of Winnipeg to be added as an additional insured
 - (b) Professional liability insurance in the amount of at least \$5,000,000.00 per claim and \$1,000,000.00 in the aggregate to remain in place during the works and for 12 months following completion of the work.
- D11.3 The Contractor shall provide the Contract Administrator with a certificate(s) of insurance, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.
- D11.4 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.
- D11.5 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.
- D11.6 All policies shall be taken out with insurer's license to carry on business in the Province of Manitoba.

D12. PERFORMANCE SECURITY

- D12.1 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.

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.

- D12.2 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.

D13. SUBCONTRACTOR LIST

- D13.1 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.

D14. DETAILED WORK SCHEDULE

- D14.1 The Contractor shall provide the Contract Administrator with a detailed work schedule at least two (2) Business Days prior to the commencement of any Work on the Site.
- D14.2 The detailed work schedule shall consist of the following:
- (a) a critical path method (C.P.M.) schedule for the Work;
 - (b) a Gantt chart for the Work based on the C.P.M. schedule; and
 - (c) a daily manpower schedule for the Work
 - (d) All acceptable to the Contract Administrator.
- D14.3 Further to D14.2(a), the C.P.M. schedule shall clearly identify the start and completion dates of all of the following activities/tasks making up the Work as well as showing those activities/tasks on the critical path:
- (a) drawing submissions and anticipated submission approvals;
 - (b) permit submissions and anticipated approval;
 - (c) submittals of shop drawings and samples;
 - (d) delivery of materials, spray features and Site furnishings;
 - (e) construction start;
 - (f) demolition and removals;
 - (g) Site power upgrade;
 - (h) civil and mechanical piping;
 - (i) spray features footing installations;

- (j) installation of spray features
- (k) installation of Site furnishings;
- (l) softscape installation;
- (m) commissioning and training; and,
- (n) anticipated project completion.

D14.4 Further to D14.2(b), the Gantt chart shall show the time on a weekly basis, required to carry out the Work of each trade, or specification division. The time shall be on the horizontal axis, and the type of trade shall be on the vertical axis.

D14.5 Further to D14.2(c), the daily manpower schedule shall list the daily number of individuals on the Site for each trade.

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 D9;
 - (ii) evidence of the workers compensation coverage specified in C6.15;
 - (iii) the Safe Work Plan specified in D10;
 - (iv) evidence of the insurance specified in D11;
 - (v) the performance security specified in D12;
 - (vi) the Subcontractor list specified in D13;
 - (vii) 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.
- (c) Permitting is in place for all construction.

D15.3 The Contractor shall commence the Work on the Site within seven (7) Working Days of receipt of the letter of intent.

D15.4 The City intends to award this Contract by August 9, 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. WORKING DAYS

D16.1 Further to C1.1(jj), the Contract Administrator's determination of whether or not atmospheric and Site conditions are such that a Working Day is deemed to have elapsed may be based at one time on one type of work while at another time a Working Day may be based on another type of work. When more than one type of major work is involved, the quantity of equipment that must be able to work in order to meet the requirements of a Working Day may vary considerably from that specified in the General Conditions.

D16.2 In the event that incidental work is behind schedule which, in the opinion of the Contract Administrator, should have been or could have been carried out by the Contractor in conjunction

with or immediately following work of a major type, the City hereby reserves the right to charge Working Days on the incidental work until such time as it is up to schedule.

- D16.3 When the major type of work involves restoration of the site to the condition it was prior to rainfall, Working Days shall not be charged.
- D16.4 The Contract Administrator will furnish the Contractor with a daily record for each major type of work showing various information concerning the equipment, the time it worked, could have worked and Working Days charged. This report is to be signed each day by an authorized representative of the Contractor.

D17. CRITICAL STAGES

- D17.1 The Contractor shall achieve critical stages of the Work in accordance with the following requirements:
- (a) 66% Submission Construction Drawings for City review by August 16, 2017.
 - (b) 99% Submission of Construction Drawings for City review by August 29, 2017.
 - (c) Permitting application by August 30, 2017.
 - (d) Construction start by September 15, 2017.
 - (e) Installation of spray features by May 15, 2018.
 - (f) Systems testing by May 30, 2018.

D18. SUBSTANTIAL PERFORMANCE

- D18.1 The Contractor shall achieve Substantial Performance by May 31, 2018.
- D18.2 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.
- D18.3 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.

D19. TOTAL PERFORMANCE

- D19.1 The Contractor shall achieve Total Performance by June 8, 2018.
- D19.2 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.
- D19.3 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.

D20. LIQUIDATED DAMAGES

- D20.1 If the Contractor fails to achieve critical stages, Substantial Performance or Total Performance in accordance with the Contract by the day fixed herein for same, the Contractor shall pay the following amounts per Working Day for each and every Working Day following the day fixed herein for same during which such failure continues:

- (a) 66% Submission Construction Drawings for City review– Five hundred dollars (\$500.00);
- (b) 99% Submission Construction Drawings for City Review – Five hundred dollars (\$500.00);
- (c) Permitting application – Five hundred dollars (\$500.00);
- (d) Construction start – Five hundred dollars (\$500.00);
- (e) Substantial Performance – Five hundred dollars (\$500.00);
- (f) Total Performance – Five Hundred dollars (\$500.00).

D20.2 The amount specified for liquidated damages in D20.1 is based on a genuine pre-estimate of the City's damages in the event that the Contractor does not achieve critical stages, Substantial Performance or Total Performance by the day fixed herein for same.

D20.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

D21. SCHEDULED MAINTENANCE

D21.1 The Contractor shall perform the following scheduled maintenance in the manner and within the time periods required by the Specifications:

- (a) First Winterization of Facility as specified in E35.1 is to be completed by September 30, 2018;
- (b) Spring start-up prior to May 20, 2019.

D21.2 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

D22. JOB MEETINGS

D22.1 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.

D22.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he/she deems it necessary.

D23. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)

D23.1 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).

D24. THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA) – QUALIFICATIONS

D24.1 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.

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.

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.

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

- 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 Warranty is as stated in C13.

FORM H1: PERFORMANCE BOND
(See D12)

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. 571-2017

FOR THE DESIGN AND CONSTRUCTION OF OLD EX/NORTH END CENTENNIAL RECREATION
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 D12)

(Date)

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

RE: PERFORMANCE SECURITY – RFP NO. 571-2017

FOR THE DESIGN AND CONSTRUCTION OF OLD EX/NORTH END CENTENNIAL
RECREATION 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.

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>.

The version in effect three (3) Business Days before the Submission Deadline shall apply.

Further to C2.4(d), Specifications included in the Request for Proposal shall govern over *The City of Winnipeg Standard Construction Specifications*.

<u>Drawing No.</u>	<u>Drawing Name/Title</u>
L-0.0	Existing Conditions and Removals Plan
L-1.0	Conceptual Layout Plan
L-2.0	Conceptual Grading Plan

E1.3 Bidders are reminded that requests for approval of substitutes as an approved equal or an approved alternative shall be made in accordance with B7.

GENERAL REQUIREMENTS

E2. COMPLETE PROJECT

E2.1 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.

E3. EXISTING SERVICES AND UTILITIES

E3.1 No responsibility will be assumed by the City or the Contract Administrator for correctness or completeness of the Drawings, when provided, with respect to the existing utilities, pipes or other objects, either underground or on the surface; the City and the Contract Administrator shall not be liable for the incorrectness and inadequacy thereof. It shall be the responsibility of the Contractor to determine the location of all such utilities, pipes and other objects and to make good any damage done to them.

E4. ACCESS TO SITE

E4.1 Access to the Site as required by the Contractor shall be provided and maintained by the Contractor at his own expense and approved by the Contract Administrator.

E4.2 The Contractor's operations shall be limited to the minimum area necessary for undertaking the Work and he shall be responsible for all damage resulting from his Work on private or public property.

E5. SITE CONDITION

E5.1 The Contractor shall examine the Site and make themselves familiar with the existing conditions (both above and below grade) and nature of Work to be done.

E5.2 Surface and sub-surface conditions shown on the Drawings and included herein are provided for general information and variations there from shall not affect the terms of the Contract.

E5.3 The Contractor shall set all necessary control lines, benchmarks, survey, elevation stakes and layout in accordance with the individual Site conditions and in consultation with the Contract Administrator.

E6. DAMAGE TO EXISTING STRUCTURES, TREES AND PROPERTY

E6.1 All necessary precautions shall be exercised by the Contractor so as not to remove, disturb, or damage any existing trees, shrubs, sod, pavements, streets, roads, boulevards, poles, hydrants, water pipes, gas pipes, electrical wires, cables, conduits, sewers or other existing facilities and equipment at the Site of the Work. For all damage incurred in the performance of the Work (either directly or indirectly), the Contractor shall either replace and repair such damage, whichever may be deemed necessary in the opinion of, and acceptable to the Contract Administrator, and the cost of which shall be borne entirely by the Contractor. The Contractor shall also indemnify and save harmless the City and the Contract Administrator from all claims made directly or indirectly against it in respect to any such damage.

E7. PERMITS, NOTICES, LICENCES, CERTIFICATES, LAWS AND RULES

E7.1 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.

E7.2 The Contractor shall comply with all laws, ordinances, rules and regulations that would relate to the Work.

E7.3 All notices, consents, approvals, statements, authorizations, documents or other communications to the City shall be submitted to the Contract Administrator.

E7.4 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety Act.

E7.5 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety Fall Protection guidelines.

E7.6 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.

E8. STAKES AND MARKS

E8.1 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.

E8.2 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.

E8.3 Before commencing Work, the Contractor shall satisfy himself as to the meaning and correctness of all stakes and marks and no claims shall be entertained by the City 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.

E8.4 The Contractor shall determine and provide all dimensions and elevations measured from the stakes or marks.

E8.5 The Contract Administrator shall be advised of the staking of the play area 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.

E9. PEDESTRIAN SAFETY AND TRAFFIC MANAGEMENT

E9.1 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 is working near them. Any damage caused by the negligence of the Contractor or his Sub-Contractors to the adjacent Works or properties, shall be promptly repaired by him at his own expense, to the satisfaction of the Contract Administrator.

E9.2 The Contractor shall, during the construction of this project, maintain safe, accessible, access to the adjacent facilities at all times.

E9.3 The Contractor shall isolate the work Site with temporary fencing. These shall be erected and maintained as required for the duration of the construction period.

(a) Flexible snow fencing will not be accepted as sufficient to isolate the site.

E9.4 Ambulance/Emergency vehicle access must be maintained at all times.

E9.5 Site enclosures shall be considered incidental to the Contract Work.

E10. PROTECTION OF THE SURVEY INFRASTRUCTURE

E10.1 Notwithstanding clause 4 "Protection of Survey Bars" of the Standard Provisions; Current legislation, The Surveys Act, places the onus on those undertaking construction to protect the Survey Infrastructure from damage as a result of their activity.

E10.2 Further to C:6.26 (g), at least seventy-two (72) hours prior to the commencement of the On-Site Work the Contractor shall contact the City of Winnipeg, Geomatics Services Branch at 986-4826 (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.

E10.3 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 forty-eight (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.

E10.4 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. An approximate estimate of the costs involved to restore a legal survey monument is \$1,000 per bar and \$3,000 per control monument. Contractors must ensure their landscaping and other subcontractors are aware of this clearance procedure and the potential restoration costs.

E10.5 Where possible, amounts owed to the City in accordance with the above will be deducted from any payments to be made by the City to the Contractor

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.
- (a) The Contractor shall not stockpile materials and soil or park vehicles and equipment within 2 metres of trees.
 - (b) Trees identified to be at risk by the Contract Administrator are to be strapped with 25x100x2400mm wood planks, or suitable protection as approved by the Contract Administrator.
 - (c) Excavation shall be performed in a manner that minimizes damage to the existing root systems. Where possible, excavation shall be carried out such that the edge of the excavation shall be a minimum of 1.5 times the diameter (measured in inches), with the outcome read in feet, from the closest edge of the trunk. Where roots must be cut to facilitate excavation, they shall be pruned neatly at the face of excavation.
 - (d) Operation of equipment within the drip line of the trees shall be kept to a minimum required to perform the Work required. Equipment shall not be parked, repaired, refuelled; construction materials shall not be stored, and earth materials shall not be stockpiled within the drip lines of trees. The drip line of a tree shall be considered to be the ground surface directly beneath the tips of its outermost branches. The Contractor shall ensure that the operations do not cause flooding or sediment deposition on areas where trees are located.
- E11.2 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 2m o.c. Safety fencing shall be securely fastened to the trail stake.
- E11.3 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.
- E11.4 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.
- E11.5 Tree protection shall be incidental to the work and will have no separate measurement and payment.

E12. LAYOUT OF WORKS

- E12.1 The Contractor will Work from layout information provided in the construction drawings and will be responsible to provide a full time experienced survey crew to layout and continuously check the locations and elevations of all components and paving patterns of the Work included in this Contract.
- E12.2 The Contractor must provide all necessary survey equipment in good operating conditions.
- E12.3 The Contractor shall supply all materials (painting, stakes, ribbon, markers, etc) and labour necessary for the accurate location and setting out of the Work.
- E12.4 From time to time the Contract Administrator may have a survey crew on the Site, but they will check the Work done by the Contractor's survey personnel only. The checking of the Work by the City's surveyors will not relieve the Contractor of any responsibility of the correctness of the Work. Should any structure or paving or any part thereof be installed in any location other than that shown on the Drawings, then the error shall be rectified by the Contractor all at his own expense and at the satisfaction of, and in a manner specified by the Contract Administrator.

E13. EXISTING UNDERGROUND SERVICES

- E13.1 The Contractor's attention is drawn to the existing underground lines or services that may be located in the area of the Work.
- E13.2 The Contractor shall take all necessary precautions when performing the Work to ensure that no damage is done to these existing services.
- E13.3 No responsibility will be assumed by the Owner for correctness or completeness of the Drawings, when provided, with respect to the existing utilities, pipes or other objects either underground or on the surface, shall not be liable for the incorrectness and inadequacy thereof. It shall be the responsibility of the Contractor to determine the location of all such utilities, pipes and other objects and to make good any damage done to them.
- E13.4 All costs in connection with this item including location of the existing service, repairs to any existing services damaged by the construction operation, etc. shall be included in the unit prices bid for supply and installation of the items included under this Contract.
- E13.5 The Contractor will be required to make his own arrangements in connection with the temporary use of lighting, power, gas, sewer, water or other utilities, and pay all costs in connection therewith.
- E13.6 All necessary permits, fees and other like expenses as well as the cost of temporary connections to existing facilities shall be arranged and paid for by the Contractor.

E14. PRODUCT APPROVALS

- E14.1 The Contractor shall, following award, prepare a complete list of all materials with product data sheets to be used on the project and submit the list to the Contract Administrator with 99% Construction Drawings.
- E14.2 The Contractor shall only use material which has been approved by the City of Winnipeg.
- E14.3 All workmanship and materials furnished and supplied under this Specification are subject to close and systematic inspection and testing by the Contract Administrator. The Contract Administrator reserves the right to reject any materials or Works which are not in accordance with the requirements of the Specifications.
- E14.4 The Contractor shall be wholly responsible for the specification, supply, safe storage, and handling of all materials, and the control of all operations incidental thereto notwithstanding any inspection or approval that may have been previously given.

E15. DAMAGE TO STREETS AND STRUCTURES

- E15.1 The Contractor is to be advised of the following existing Site features to be retained and protected to the City of Winnipeg Standards:
- | | | | |
|-------------|-----------------------------|-----------------|-------------------|
| a) trees | e) light standards | i) hydro poles | |
| b) curbs | f) fire hydrants | j) catch basins | n) pathways |
| c) sidewalk | g) street signs | k) curb inlets | o) site furniture |
| d) sod | h) all underground services | l) fences | |

E16. PERMITS, NOTICES, LICENCES, CERTIFICATIONS, LAWS, AND RULES

- E16.1 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.
- E16.2 The Site Development Permit (including lot grading and damage deposits) will be obtained and paid for by the Contractor upon award of Contract.

E16.3 The Contractor shall comply with all laws, ordinances, rules, and regulations that would relate to the Works.

E17. CONSTRUCTION FACILITIES AND STAGING

E17.1 The Contractor shall be responsible for providing his own storage and handling of all his/her construction operations. The use of public right-of-way will not be allowed.

E18. CONSULTANT SERVICES

E18.1 Consultants on the Design team are to include all required professional Engineers required to design and certify all works for Civil, Geotechnical, Structural, Mechanical, and Electrical work to be done on the project.

E18.2 All Drawings for construction are to be stamped by a professional Engineer licensed to practice in Manitoba for each discipline. All Drawings are to be submitted by the date noted in Critical Stages.

E18.3 All consultant services from detailed conceptual design through to certification are to be included in the Bid Price.

E18.4 Payment shall be as per Form B: Prices at the price for item "Consultant Services"

E19. EXCAVATION, REMOVALS, SUBGRADE COMPACTION AND ROUGH GRADING

E19.1 This specification is supplemental to CW 3110 and CW 3170. The Work of this section comprises the furnishing of all labour, equipment and materials required to complete the excavation fill, grading and related Work including, but not necessarily confined to, the following:

- (a) Excavation, removals, disposal, subgrade compaction and rough grading of the existing Site for the construction of concrete sidewalk, reinforced concrete spray pad and sodded areas to the design requirements noted on the Drawings, approved on Site by the Contract Administrator, less the appropriate surface finish allowance.
- (b) Excavation, removals, disposal, subgrade compaction and rough grading of the existing concrete wading pool area, chain-link fence, washroom facility, existing plumbing and piping to be capped off and all other design requirements noted on the Drawings, approved on Site by the Contract Administrator, less the appropriate surface finish allowance.
- (c) Stockpile suitable, approved material on Site for reuse (clean topsoil, clean earth fill). Remove and dispose of unsuitable material.
- (d) Earthwork and Grading of the existing Site (cut and fill including supply, placement and compaction of subgrade and fill material) to ensure positive drainage in all paved areas, and swales and adjacent sodded/seeded areas.
- (e) Excavation, removals, and disposal of unsuitable subgrade and replacement with compacted granular base material for all paved areas.

Materials

E19.2 All fill materials shall conform to CW 3170

Construction Methods

E19.3 The Contractor shall remove and dispose of all surfaces within the area of work as required to construct all new site work.

E19.4 The Contractor shall remove and dispose of trees including root mass shown on the Drawings.

E19.5 The Contractor shall construct the Site within the limits indicated to the design elevations and gradients noted on the Issued for Construction Drawings, less the appropriate surface treatment

- depths specified and shall excavate, remove and dispose of all unsuitable materials of whatever nature encountered.
- E19.6 The Contractor shall construct all sub-grades in accordance with Specification CW 3110. Excavation will be performed as per Item 3.2 of CW 3110. The Contractor shall remove existing pavement in accordance with 3.1 of CW 3110. Unsuitable Excavated material shall be disposed of as per Item 3.2 of CW 3110. All surplus material will be disposed of in accordance with Item 3.2 of CW 3110.
- E19.7 The Contractor shall restrict his activities strictly to within the limits of the Work, unless receiving prior written approval from the Contract Administrator. The Contractor shall take all precautions to prevent damage to traffic structures, electrical poles, existing trees, sidewalks. Site services and adjacent property and he shall be liable for any damages occurring in the performance of this Work.
- E19.8 The Contractor shall examine the Site and make themselves familiar with the existing conditions and the nature of the Work to be done.
- E19.9 The Contractor shall prevent damage to surface or underground utility lines which are to remain and make good any damage.
- E19.10 The Contractor shall excavate to the design grades shown less the appropriate allowance for surface treatment and shall excavate, remove and dispose of all unsuitable materials of whatever nature encountered.
- E19.11 Excavated or graded materials to be approved before use as fill for grading Work. Protect such approved material from contamination. Stockpile in approved locations on Site. Protection and stockpiling are incidental to unit prices bid for excavation, removals and rough grading.
- E19.12 The Contractor shall excavate topsoil as per CW 3170 Section 9.2. Topsoil excavation is incidental to the unit prices bid for excavation, removal and rough grading.
- E19.13 The Contractor shall ensure that upon completion of the removal operations the Site is left in a neat condition free from debris, etc. for approval by the Contract Administrator prior to placing base courses and clean fill.
- E19.14 Except for drainage swales, berms indicated, the design gradient for all other areas shall be considered to be straight grade between the design elevations shown. Changes in grade at swales, berms, embankments and field shall be gently contoured as directed by the Contract Administrator to provide future ease of grass mowing operation.
- E19.15 The Contractor is advised that there may be useable topsoil, clay and gravel fill on Site. All suitable material will be reviewed and approved by the Contract Administrator and then re-used on Site. The re-use of this material on Site may reduce the quantity of imported topsoil, gravel and clean earth fill required. The Contractor shall re-use existing Site material prior to delivering new material to Site.
- E19.16 No direct payment will be made for placing and grading of existing fill as all costs for this Work shall be included in the lump sum bid for rough grading within the limit of the Work.
- E19.17 Compaction shall include the use of sheep's foot or other suitable compaction equipment as approved by the Contract Administrator to achieve a minimum compaction of 98% Standard Proctor Density below all paved areas, and 95% Standard Proctor Density in all other areas disturbed under this Contract.
- E19.18 The Contractor shall construct the compacted sub-grade surface to the following minimum depths below the grades shown on the Drawings for each area:
- | | |
|-----------------------|-------|
| (a) Concrete Sidewalk | 250mm |
| (b) Sodded Areas | 100mm |

E19.19 Following earth moving, rough grading and compaction, the Work areas shall be fine graded to provide a maximum deviation of 50mm in 10 metres from the design grade with no low areas to hold water. The finished surface of all disturbed areas shall be dragged and smoothed in such a manner that there are no loose soil particles greater than 50mm in maximum dimension.

Measurement and payment

E19.20 Removals will be paid for at the contract lump sum price for "Removals" as specified herein, which price shall be payment in full for performing all operations herein and all other items incidental to the Work included in this Specification.

E19.21 No separate measurement or payment shall be made for tree removal as this Work is incidental to the lump sum price for "Removals".

E19.22 Rough Grading will be paid for at the contract unit price for "Rough Grading" as specified herein, which price shall be payment in full for performing all operations herein and all other items incidental to the Work included in this Specification.

E20. MATCHING EXISTING GRADES

E20.1 Wherever the proposed paving, or sod meets existing hard surface, or property line, the Contractor shall construct the proposed element to an acceptable grade, as directed by the Contract Administrator, to ensure that proper drainage and accessibility are maintained

E21. CONCRETE SIDEWALK

Description

E21.1 Further to City of Winnipeg Specification CW 3325 this section covers the supply and installation of concrete sidewalk.

E21.2 Materials to be to CW 3325.

E21.3 Compacted base to be 150mm thick granular A base.

E21.4 Sidewalk to be 100mm thick with reinforcing mat as per City of Winnipeg Construction Standards.

E21.5 Thickened edge of sidewalk will be incidental to the unit prices bid for concrete sidewalk.

Measurement and Payment

E21.6 Supply and installation of concrete sidewalk will be measured on an area basis. The surface area to be paid for shall be the total number of square metres supplied for "Supply and install concrete sidewalk" in accordance with the specifications and accepted by the Contract Administrator, as computed from measurements made by the Contract Administrator.

E22. INTERLOCKING PAVING STONES

General

E22.1 Further to CW 3335 this Specification shall cover the:

- (a) supply and installation of interlocking paving stones (unit pavers),
- (b) supply and installation of sand setting bed,

E22.2 The Work to be done by the Contractor under this Specification shall include the furnishing of all superintendence, overhead, labour, materials, equipment, tools, supplies and all other things necessary and incidental to the satisfactory performance and completion of all Work as hereinafter specified.

Materials

E22.3 Concrete interlocking paving stones (unit pavers) shall be, supplied by Barkman Concrete, contact Anthony Militano (204) 667-3310 as shown on the Drawings and as follows:

(a) Holland paver, to match existing on site.

E22.4 Sand:

(a) Clean brick sand as joint filler.

(b) Clean brick sand as minimum 13mm depth setting bed

Construction Methods

E22.5 Interlocking paving stones shall be installed in block out in concrete base as per City of Winnipeg Standard Construction Specifications CW 3335.

E22.6 Install sand setting bed for pavers as per City of Winnipeg Standard Construction Specifications CW 3335.

Measurement and Payment

E22.7 Supply and installation of interlocking paving stones (unit pavers) will be measured and paid for at the contract square metre price for "Supply and install unit pavers", measured as specified herein, which price shall be payment in full for supplying all materials and performing all operations herein described and all other items incidental to the Work included in this specification and as measured by the Contract Administrator.

E23. CAST-IN-PLACE CONCRETE

Description

E23.1 The Work of this section comprises the furnishing of all labour, equipment and materials required to complete the supply and installation of cast-in-place concrete pad for spray pad and concrete footings for site furniture as shown on the drawings and as hereinafter specified, including, but not necessarily confined to the following:

(a) Excavation

(b) Granular fill Work as required

(c) Supply, erection and removal of all formwork as required

(d) Design of concrete mixes

(e) Supply and install of concrete pad for spray pad

(f) Supply, placing and curing of bases for bench and waste receptacle

(g) Supply and installation of all joint material in concrete Work.

(h) Supply and Installation of compacted granular base courses not supplied by other sections.

(i) Clean-up.

E23.2 The following items of Work are specified under other sections of the specifications and are not included in this section:

(a) Supply of miscellaneous metal anchors, bolts, inserts, etc.

Materials

E23.3 All concrete Work shall be in accordance with CAN3-A23.1-Concrete Materials and Methods of Concrete Constructions. Proportion normal density concrete in accordance with CAN3-A23.1 to govern the following properties.

- E23.4 Contractor to provide concrete design mix, specifications and details for cast-in-place concrete slabs and support bases.
- E23.5 Fine aggregate shall consist of natural sand or manufactured sand and shall conform to all requirements of CAN3.A23.1.
- E23.6 Coarse aggregate shall consist of hard, strong, uncoated durable particles of crushed stone, gravel or approved combination thereof and shall be free from an excess of thin, elongated or soft pieces, frozen lumps, vegetable matter or other deleterious matter, and shall conform to all the requirements of CAN3-A23.1. Maximum size of coarse aggregate shall be 20 mm.
- E23.7 Water for concrete shall be clean and free from injurious amounts of oil, acid, alkali, salts, silt, organic matter or other deleterious matter. The quality of the water shall be equal to or better than that of potable water.
- E23.8 A non-detergent type of air-entraining admixture, supplied in liquid form, shall be metered into the mix. The total air in the placed concrete shall be 5% - 8%.
- E23.9 Curing compound shall be Sternson ritcure or approved equal, in accordance with B6.
- E23.10 Bonding agent shall be Sternson ST 431 Epoxy Bonding Agent.
- E23.11 Form coating shall be Sternson's Formseal or approved equal, in accordance with B6.
- E23.12 Compacted granular base courses for all cast in place concrete Works shall be in accordance with City of Winnipeg Specifications.
- E23.13 Contractor to provide Stamped Engineered Drawings and specifications conforming to or modifying the product and method of construction.
- E23.14 The Contract Administrator may engage a fully qualified Inspecting Engineer and Testing Laboratory to:
- (a) Inspect the pile excavations to determine that they have been augured to the specified depth, are of the specified size, are clean and level, and meet the design criteria.
 - (b) Take test cylinders during concrete placing and carry out compression tests to determine whether concrete produced complies with these Specifications.
 - (c) Take compaction tests of compacted granular sub-base and sub-grade material.
 - (d) Submit reports to the Contract Administrator of all materials, concrete, and caisson tests and inspections.
 - (e) Three concrete test cylinders to be taken for pile cast. One cylinder from each group shall be tested at seven (7) days, one at 14 days and the remainder at 28 days. Sampling and testing procedures shall be according to CAN3-A23.1 latest edition.
- E23.15 Curing and Protection to be specified by Structural Engineer
- (a) Curing shall immediately follow the finishing operation as in CSA A23.1, Section 18 and shall continue for a minimum of five (5) days at 10°C.
 - (b) When the outside temperature is less than 4°C, the temperature of the concrete shall be maintained between 10°C and 21°C for the required curing period.
 - (c) When heat required for curing is being removed, the maximum temperature change shall not exceed 2.5°C per hour or 27°C, in any 24 hour period.
 - (d) Unless adequate protection is provided, no concrete shall be placed during rain, sleet or snow.

Rainwater shall not be allowed to increase the mixing water nor damage the surface finish.

All exposed concrete to have sack rubbed finish

Excavation for Piling

- E23.16 Water jetting methods of excavation will not be permitted. The bearing surface shall be inspected and any loose material shall be cleaned out prior to casting concrete.
- E23.17 If, in the opinion of the Engineer specifying concrete, casing is required to prevent the sides of the augured hole from sloughing in the casing shall be supplied and installed, at no cost to the City. Sleeving will not be allowed for piles less than 600 mm diameter. The diameter of casing supplied shall be equal to the specified diameter of the foundation being constructed. If required, overboring shall be carried out to allow the installation of the casing, if so approved by the Contract Administrator. No additional payment will be made for overboring. The casing shall be designed to withstand installation, withdrawal and earth pressure forces. The casing shall be withdrawn as the concrete is poured ensuring that the casing is at least 1 metre below the top of the freshly placed concrete until all concrete in the foundation is placed.
- E23.18 The pile excavation shall be kept dry at all times. The Contractor shall have on hand sufficient pumps to satisfy this requirement.
- E23.19 Rocks or boulders hindering the continuation of drilling shall be removed in whole or part, using approved methods.

Pile Concrete Work

- E23.20 The pile concrete shall be cast no later than 24 hours after the excavation has been completed.
- E23.21 The reinforcing cage shall be placed in the pile excavation prior to starting the concreting. Spacers shall be provided to keep the reinforcing cage in its correct location.
- E23.22 Reinforcement shall be clean, and free from all coatings, including ice, loose rust, dried concrete, which tend to reduce bond.
- E23.23 Reinforcement shall be formed accurately and secured in pile shaft and to required ties and spacers with annealed wire ties or suitable clips so that position and concrete cover is assured.
- E23.24 Vertical or bent bars shall extend above the top of pile shaft as shown to provide anchorage for the grade beam.
- E23.25 Reinforcing bars kinked, twisted, bent past a right angle, or reduced in cross section, will be rejected.
- E23.26 Concrete consistency shall be such that concrete works readily into corners and around reinforcement without segregation of materials or the collection of free water on the surface.
- E23.27 Do not place concrete until piles, shafts, and/or bells have been inspected.
- E23.28 Place concrete using "elephant trunk" or special chutes which will prevent segregation of materials, ensure a practically continuous flow of concrete at the delivery end, and limit the vertical height of free fall of the concrete to 3 metres.
- E23.29 Concrete placing shall be continuous from bottom to top of pile or caisson, and puddling or rodding carried on constantly to bring air bubbles to the surface and produce a uniform, homogeneous structure.
- E23.30 Mechanical vibration shall be carried out continuously during placing of concrete in piles.
- E23.31 Work concrete completely around reinforcement by rodding, spading and mechanical vibration. Vibrators shall vibrate at not less than 5000 impulses per minute and shall be operated by personnel experienced and qualified in their use.
- E23.32 Concrete shall be kept moist for at least the first 7 days after placing and the temperature of the concrete maintained above 10°C during this time.

- E23.33 If upper soil stratum is dry and there is danger of the concrete losing moisture thereto, water shall be added to the soil by forming a depression around the pile top and ponding continuously for a period of 7 days.
- E23.34 Whenever the temperature of the surrounding air is below or is likely to fall below 5°C during the 4 day period immediately following concrete placing, artificial heating, housing and/or protective covering shall be provided for the pile tops to maintain concrete temperature at or above 10°C.
- E23.35 No dependence shall be placed on salt or other chemicals for the prevention of freezing.

Clean up and Damage

- E23.36 Immediately on completion of all piles and foundations Contractor shall remove from Site all equipment, timbers, shores, excavated material, unused concrete, rubbish, etc., caused by his operations, and leave the Site clean, level and ready for placing of grade beams.
- E23.37 The Contractor shall be responsible for making good all areas damaged by his operations in connection with this Contract regardless of the limits of the Contract as shown on the Drawings.

Measurement and Payment

- E23.38 Supply and installation of reinforced concrete pad for spray pad will be measured on an area basis. The surface area to be paid for shall be the total number of square metres supplied in accordance with the specifications and accepted by the Contract Administrator, as computed from measurements made by the Contract Administrator.
- E23.39 No adjustments in price will be made should actual pile lengths in place be lesser or greater than anticipated by the Contractor.
- E23.40 No separate measurement or payment shall be made for C.I.P. concrete bases for site furniture as this Work is incidental to the unit prices bid for installation of those items.

E24. SITE SERVICES

- E24.1 Further to CW2110 and CW2130, water line and waste water sewer line construction are to include all works related to the supply and installation of site services.
- E24.2 Contractor to confirm connection points with City of Winnipeg prior to submission of design.
- E24.3 Contractor to include all works as required by City of Winnipeg for connection to city services in the right of way
- E24.4 Contractor to confirm Hydro service point with Manitoba Hydro and provide all required works to bring power to the site. This includes, but is not limited to, Hydro services charges, wiring, pedestals, poles etc. as directed by Manitoba Hydro.
- E24.5 Contractor to include all materials and labour as required to install/relocate connections as required.
- E24.6 All surface repairs are to be incidental to the unit price bid for site services.

Measurement and Payment

- E24.7 Site services for the spray pad will be paid for at the contract lump sum price under Mechanical, Electrical and Civil as specified herein, which price shall be payment in full for performing all operations herein and all other items incidental to the Work included in this Specification.

E25. MECHANICAL, ELECTRICAL, CIVIL SYSTEMS

- E25.1 The spray features system is to be a straight to drain system connected to existing City of Winnipeg Water and Waste service. Design of the system is to be approved by the City of Winnipeg prior to start of construction.
- E25.2 Primary control system including activation switch, timers, electronic sequencers and wiring schematics, controllers, valves, pressure regulators, ball valves etc. shall be provided.
- E25.3 Work to be performed by journeymen skilled tradesmen to the satisfaction of the Contract Administrator.
- E25.4 All plumbing and electrical must comply with all regulatory authorities that have jurisdiction and manufactures recommended practices.
- E25.5 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 waste water sewer.
- E25.6 Designs will respect the use of the areas and ensure the comfort and safety of the occupants.
- E25.7 Mechanical markings to be in accordance with the following and approved by the Contract Administrator:
- (a) Canadian General Standards Board (CGSB).
 - (b) CAN/CGSB-1.60[M89], Interior Alkyld Gloss Enamel.
 - (c) CAN/CGSB-24.3[92], Identification of Piping Systems
 - (d) CAN/CGSB-149.1[M95].
 - (e) CAN/CGSB-149.2[M91].
- E25.8 Controls:
- (a) Low lifecycle cost considering initial investment, daily operations, maintenance and expected lifespan.
 - (b) System to drain away so that there is no standing water at any time.
 - (c) Must comply with current Provincial Health regulations for water quality.
- E25.9 Piping
- (a) All fittings to be specified by Mechanical Engineer
 - (b) Water supply line to be min 4" (100mm) in diameter as requested by the City of Winnipeg.
 - (c) All water lines to have proper slope and drain capability and blow out valves for fall servicing.
 - (d) Piping to include a shock arrester.
 - (e) Drain lines are to be sized to permit draining of basin to prevent standing water.
 - (f) All PVC underground piping to be specified by Mechanical Engineer.
 - (g) All supply lines to the features to be low pressure poly pipe approved for 100 psi.
 - (h) Drain lines are to gravity drain to facilitate winterization. Ensure draining points are located at the lowest areas within the piping system.
 - (i) Provide a minimum 1 inch air supply connection close to the initial water supply entry or water meter.
- E25.10 Mechanical
- (a) To be incorporated in free standing weatherproof cabinet enclosure housing all contacts and valves.
 - (b) Site shall have a rain sensor control to limit the use of the site during rain events.

- E25.11 Operations and maintenance manual to be provided.
- (a) Provide three (3) bound copies of the operation and maintenance manual detailing the operation and maintenance for all elements of the construction.
- E25.12 Training
- (a) Provide 3 days of training on the operation and maintenance of the proposed system at times of start-up and winterization.
- E25.13 Electrical
- (a) All equipment must be CSA approved.
 - (b) Related to the mechanical system requirements.
 - (c) Grounding of all components within water play area.
 - (d) To meet all applicable requirements of authorities having jurisdiction.
 - (e) All electrical controls and equipment to be in a free standing weather proof enclosure.
 - (f) 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.
 - (g) As specified by Electrical Engineer.
- E25.14 Periodic review during the construction phase
- (a) The 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.

Measurement and Payment

- E25.15 Mechanical system for spray features will be paid for at the contract lump sum price for "Spray Pad Mechanical" as specified herein, which price shall be payment in full for performing all operations herein and all other items incidental to the Work included in this Specification.
- E25.16 Electrical system for spray features will be paid for at the contract lump sum price for "Spray Pad Electrical" as specified herein, which price shall be payment in full for performing all operations herein and all other items incidental to the Work included in this Specification.

E26. SPRAY FEATURES

- E26.1 In as much as possible given the constraints of budget and space, the design shall offer a mix of passive and interactive play.

Provide for all age and ability user groups. The spray pad should be zoned with two groupings of components dedicated to Toddlers (children 0-4 yrs) and Youth (5-12 yrs), as indicated on the drawings.

Follow City of Winnipeg Accessibility Design Standards.

Contain a variety of ground sprays, mid-height components, and tall components.

Contain a minimum of one 'group' or 'team' feature that requires multiple user participation to manipulate the type/amount of water being sprayed.

Contain 'dumping buckets' as space permits.

Contain a minimum of two combination bollard/spray activators.

Be complementary in colour scheme to the existing playground and community centre. The Contract Administrator reserves the right to change any or all colours prior to the Contractor ordering the components.

Contain a consistent look or 'theme' within the spray pad.

Special consideration will be given to products that offer the ability to relocate/remove to other bases.

E26.2 The design of the spray pad components should not include:

Trip, entanglement and strangulation hazards.

'Ground stream' type features, particularly those containing low to the ground/moveable components.

Components with moving parts that may pose a hazard or injury.

Water cannons/shooting components with high water pressure and/or resemble weapons.

Components that contain complicated computerized mechanisms.

Measurement and Payment

E26.3 Supply and installation of spray features will be paid for at the contract lump sum price for "Spray features" as specified herein, which price shall be payment in full for performing all operations herein and all other items incidental to the Work included in this Specification.

E27. CONCRETE SPRAY PAD AND OVERSPRAY ZONE

E27.1 General Considerations

- (a) Basin shall be sized to collect overspray to a minimum of 1.5 times the manufacturer's specified overspray.
- (b) Site shall be accessible throughout with no curbs blocking access.
- (c) Concrete pad, designed to support light truck use in a wet environment minimum 150mm thick.
- (d) Materials to be to CW 3325. Concrete to be Type 2 as per CW 3310.
- (e) All surfaces to be straight to drain.
- (f) Sloped to drain towards return inlets. With straight line grade from high point to drains. Minimum 1.5% slope, maximum 3% slope. Water shall not pond or accumulate.
- (g) The spray pad is divided into two designated zones: the Youth zone (60% of the total spray basin area) and the Toddler zone (40% of the total spray basin area). The Toddler zone shall be located closer to the Community Centre.
- (h) Provide a slip resistant and easily cleanable surface suitable for use in this type of installation and acceptable to the City.
- (i) If concrete surfacing is abutting a fence, extend the concrete 300mm beyond the outside of the fence to provide a mow strip and structurally reinforced edge.
- (j) Provide drain lines as required. Minimum of 2 drains with anti-vortex covers, ADA compliant, shall be provided for each drainage basin as appropriate to the design. Openings in drain covers shall not exceed 1.27cm (0.5").
- (k) Rebar shall be epoxy coated.
- (l) Apron shall be sized to collect overspray from the spray devices to a minimum of 50% greater than manufactures stated overspray.
- (m) Contractor shall prepare three samples of concrete finishes 60cm x 60cm with a light, medium and rough finish. Contract Administer and Community Services / PPD to approve finish samples prior to any concrete being poured.
- (n) The general configuration of the spray pad is to be as shown on the Concept Drawing. The size of the spray pad may be altered if deemed suitable to the Contractor's design. The Bidder must indicate the size of the proposed concrete spray pad, measured in square metres, on Form B: Prices.
- (o) Concrete design to be specified by Structural Engineer.

E27.2 Operational Considerations

- (a) Ensure ease of access to vault / pump house, from the spray pad area by staff.
- (b) Hours of operation will be dependent on demand but are anticipated to be seven days per week from June 1 to August 31 from 11:00am to 5:30 pm.
- (c) Junior and senior pads to have separate activators.

Measurement and Payment

E27.3 Supply and installation of spray pad will be paid for at the contract unit price for "Supply and install Reinforced Concrete Spray pad" as specified herein, which price shall be payment in full for performing all operations herein and all other items incidental to the Work included in this Specification.

E28. SITE FURNITURE

Description

E28.1 This specification covers the supply and installation of:

- (a) Tache style bench composite with arms;
- (b) Tache style wheelchair metal frame picnic table

For the purposes of this section supply of materials will be for pick up materials from the City of Winnipeg and delivery to site. Materials will not be purchased by Contractor.

General

E28.2 Store units in a protected location, immediately upon arrival on the Site.

E28.3 Remove from Site any units that have been damaged during transportation and replace.

Products

E28.4 Benches – 1.83m length Tache Style composite benches with back and armrests (finish-cedar; metal-galvanized) Quantity: 5 as supplied by:

Marc Laurin @ 204-479-5489 or Todd Hendry @ 204-470-4834.
Centralized Park Services
City of Winnipeg
960 Thomas Ave.
Winnipeg. MB R2L 2E1

E28.5 Picnic Table – 2.44m length Tache Style composite picnic table (finish-cedar; metal-galvanized). Quantity: 2 as supplied by:

Marc Laurin @ 204-479-5489 or Todd Hendry @ 204-470-4834.
Centralized Park Services
City of Winnipeg
960 Thomas Ave.
Winnipeg. MB R2L 2E1

Installation

E28.6 Site furniture to be installed as per City of Winnipeg Specifications and details.

- (a) Tache style composite bench SCD-120A
- (b) Tache style wheelchair metal frame picnic table SCD-122A

E28.7 Protect and maintain Site furnishings, including accessories, until acceptance of project Work.

- E28.8 Immediately remove from Site, damaged furnishing and accessories. Replace, repair, re-finish, or otherwise make good to approval of Contract Administrator.
- E28.9 No separate payment will be made for concrete foundation for site furniture. All Work is incidental to the unit prices bid for the items.

Measurement and Payment

- E28.10 Supply and installation of Tache benches will be measured and paid for at the contract unit price per item for "Benches", measured as specified herein and accepted by the Contract Administrator.
- E28.11 Pick Up and installation of Tache picnic table will be measured and paid for at the contract unit price per item for "Accessible picnic tables", measured as specified herein and accepted by the Contract Administrator.

E29. TREE PLANTING AND MAINTENANCE

- E29.1 All Work to be to City of Winnipeg Tree Planting and Maintenance Specification

Measurement and Payment

- E29.2 Supply and installation of trees will be measured and paid for at the contract unit price per item for "Supply and install deciduous trees", measured as specified herein and accepted by the Contract Administrator.

E30. PLANTING BED PREPARATION

General

- E30.1 The following list generally describes the scope of this Section:
- (a) Cultivate subsoil;
 - (b) Supply and install planting soil;
 - (c) Supply and install wood chip mulch.
- E30.2 Submit to the Contract Administrator samples of the following materials:
- (a) Planting soil mixture: 1 kg
 - (b) Wood chip mulch: 500 g

Materials

- E30.3 Planting Soil: For mix imported topsoil with 20% peat moss loose by volume, and 5% sand loose by volume. Incorporate bone meal into planting soil at rate of 5 lbs /cu.yd. of soil mixture. Planting soil items to be comprised as follows:
- (a) Peat moss: horticultural grade Class "A" decomposed plant material, fairly elastic and homogeneous. Free of decomposed colloidal residue, weed, sulphur and iron. To have pH value of 5.9 to 7.0, 60% organic matter by weight, moisture content not exceeding 15% and water absorption capacity of not less than 300% by weight on oven dry basis.
 - (b) Bone meal: shall be raw bone meal, finely ground with a minimum analysis of 3% nitrogen and 20% phosphoric acid.
 - (c) Imported topsoil: natural, fertile, agricultural soil typical of locality, capable of sustaining vigorous plant growth, from well drained Site that is free of flooding, not in frozen or muddy condition, not less than 6% organic matter to a maximum 25% organic matter by volume, and pH value of 5.9 to 7.0. Free from subsoil, slag or clay, stones, lumps, live plants and their roots, sticks, crabgrass, couchgrass, noxious weeds and foreign matter.

- (d) Sand: hard, granular natural beach sand, washed free of impurities, chemical or organic matter.

E30.4 Fertilizer: commercial type with 50% of the elements derived from organic sources. Deliver and store fertilizer in waterproof bags showing weight, analysis and name of manufacturer.

E30.5 Wood chip mulch: varying in size from 50-75 mm and 5-20 mm thick, small branches or Shredded wood: varying in size from 25-125mm in length, from coniferous trees.

Construction Methods

E30.6 Remove debris, broken roots, branches, stones in excess of 50mm diameter and other deleterious materials. Remove subsoil that has been contaminated with oil, gasoline or calcium chloride. Dispose of removed materials as directed.

E30.7 Excavate planting beds to depths as per City of Winnipeg Specifications

E30.8 Mix fertilizer at manufacturer's recommended rate of application. Mix fertilizer thoroughly into upper 150mm of planting soil to be placed.

E30.9 Spread planting soil mixture with adequate moisture in uniform layers during dry weather over approved, dry, unfrozen sub-grade, where planting is indicated.

E30.10 Remove stones, roots, grass, weeds, construction materials, debris and foreign non-organic objects from soil mixture.

E30.11 Fine grade entire planting soil area. Eliminate rough spots.

- (a) Compact planting soil to leave surface smooth, uniform, firm against deep foot printing, with a fine, loose texture. Tolerance: plus or minus 15mm of design grade.
- (b) Supply and install 100mm depth wood chip mulch in planting beds.

Measurement and Payment

E30.12 Planting bed preparation will be measured and paid on an area basis at the Contract unit price per square metre for "Supply and install planting bed" which price shall be payment in full for supply of all materials and performing all operations herein described and for all other items incidental to the Work included in this Specification. The area to be paid for shall be the total number of square metres in place in accordance with this Specification acceptable to the Contract Administrator, as computed from measurements made by the Contract Administrator.

E31. PLANT MATERIAL

Description

E31.1 The following list generally describes the scope of this section:

- (a) Supply and installation of trees;
- (b) Supply and installation of perennials

General

E31.2 Obtain approval of plant material at source.

E31.3 Notify Contract Administrator of source of material at least 7 days in advance of shipment. No Work under this Section is to proceed without approval.

E31.4 Acceptance of plant material at source does not prevent rejection at Site prior to or after planting operations.

E31.5 Source of all plant material to be from an area within the same hardiness zone and soil conditions as Winnipeg.

Shipment and Pre-planting Care

- E31.6 Co-ordinate shipping of plants and excavation of holes to ensure minimum time lapse between digging and planting. Tie branches of trees and shrubs securely and protect plant material against abrasion, exposure and extreme temperature change during transit. Avoid binding of planting stock with rope or wire which would damage bark, break branches or destroy natural shape of plant. Give full support to root ball of large trees during lifting.
- E31.7 Cover plant foliage with tarpaulin, and protect bare roots by means of dampened straw, peat moss, sawdust or other acceptable material to prevent loss of moisture during transit and storage.
- E31.8 Remove broken and damaged roots with sharp pruning shears. Make clean cut and cover cuts over 50 mm diameter with wound dressing.
- E31.9 Keep roots moist and protected from sun and wind. Heel-in shrubs, which cannot be planted immediately, in shaded areas, and water well.

Materials

Water

- E31.10 Water should be potable and free of minerals, which may be detrimental to plant growth.

Anti-Desiccant

- E31.11 Anti-desiccant should be wax-like emulsion to provide film over plant surface reducing evaporation but permeable enough to permit transpiration.

Wound Dressing

- E31.12 Wound dressing should be horticulturally accepted non-toxic, non-hardening emulsion.

Plant Material

- E31.13 Quality and Source: Comply with City of Winnipeg tree planting guidelines, referring to size and development of plant material and root ball. All plant material to be approved by City and Contract Administrator at source.
- E31.14 Measure plants when branches are in their natural position. Height and spread dimensions refer to main body of plant and not from branch tip to branch tip. Use trees of No. 1 grade.
- E31.15 Additional plant material qualifications:
- (a) Use shrubs with strong fibrous root system free of disease, insects, defects or injuries and structurally sound. Plant must have been root pruned regularly, but not later than one growing season prior to arrival on Site.

Cold Storage

- E31.16 Approval required for plant material, which has been held in cold storage.

CONTAINER – GROWN STOCK

- E31.17 Acceptable if containers large enough for root development. Shrubs and vines must have grown in container for minimum of one growing season but not longer than two. Root system must be able to "hold" soil when removed from container. Plants that have become root bound are not acceptable. Container stock must have been fertilized with slow releasing fertilizer.

SUBSTITUTIONS

- E31.18 Substitutions to plant material as indicated on plantings plan are not permitted unless written approval has been obtained as to type, variety and size prior to award of Contract. Plant substitutions must be similar species and of equal size to those originally specified.

ROOT BALLS

- E31.19 Deciduous trees in excess of 3 m height must have been dug with large firm ball. Root balls must include 75% of fibrous and feeder root system. This excludes use of native trees grown in light sandy or rocky soil. Lift root ball from hole, place in wire basket designed for purpose and line with burlap. Secure root balls with burlap, heavy twine and wire basket. Protect root balls against sudden changes in temperature and exposure to heavy rainfall. Take care not to injure trunk of tree with wire basket ties or rope.
- E31.20 Tree spade material shall not be accepted. Unless dug in field and secured as above.

Construction Methods

- E31.21 Stake out location of trees and shrubs as per the Construction Drawings. Obtain approval by City and Contract Administrator prior to excavating.
- E31.22 Apply anti-desiccant in accordance with material manufacturer's instructions only as required.
- E31.23 Co-ordinate operations. Keep Site clean and planting holes drained. Immediately remove soil or debris spilled onto pavement.

PLANTING TIME

- E31.24 Plant deciduous plant material during dormant period, before buds have broken. Plant material noted for spring planting only, must be planted in dormant period.
- E31.25 When permission has been obtained to plant materials after buds have broken, spray plants with anti-desiccant to slow down transpiration prior to transplanting.
- E31.26 Plant only under conditions that are conducive to health and physical conditions of plants.
- E31.27 Provide planting schedule. Executing planting operations over long period using limited crew will not be accepted.

EXCAVATIONS

- E31.28 Prepare planting areas as shown on the Drawings.
- E31.29 Provide drainage for planting holes in heavy soil if natural drainage does not exist. Have method approved.
- E31.30 Protect bottom of excavations against freezing.
- E31.31 Remove water, which enters excavations prior to planting. Ensure source of water is not ground water.

PLANTING

- E31.32 Scarify sides of planting hole to depth of 150 mm where tree is planted in isolated tree pit.
- E31.33 Plant trees, vertically with roots placed straight out in hole. Orient plant material to give best appearance in relation to structure, roads and walks.
- E31.34 Place plant material to depth equal to depth they were originally growing in nursery. Allow for soil settlement in planting.

- E31.35 With balled and burlap roots balls, loosen burlap and cut away minimum top 1/2 without disturbing root ball. Cut vertical slits in remaining burlap around root ball at 250mm intervals. Remove all rope, string, or other ties from around trunk. Do not pull burlap or rope from under root ball. With container stock, remove entire container without disturbing root ball. Non bio-degradable wrappings must be removed including wire baskets.
- E31.36 Tamp planting soil around root system in layers of 150mm eliminating air voids. Frozen or saturated planting soil is unacceptable. When 2/3 of planting soil has been placed, fill hole with water. After water has completely penetrated into soil, complete backfilling.
- E31.37 Build 100 mm deep saucer around outer edge of hole to assist with maintenance watering. Install 100mm depth wood chip mulch in saucer as shown on drawings.
- E31.38 When planting is completed, give surface of planting saucer dressing of organic 10-6-4 fertilizer at rate of 12 kg/100 m for shrub beds or 40 to 50 g/mm of calliper for trees. Mix fertilizer thoroughly with top layer of planting soil and water in well.

PRUNING

- E31.39 Prune trees after planting only as required to remove broken diseased or dead branches. Employ clean sharp tools and make cuts flush with main branch, smooth and sloping as to prevent accumulation of water.

MAINTENANCE

- E31.40 After completion of planting operation to the satisfaction of the Contract Administrator and City of Winnipeg, the Contractor shall be responsible for the maintenance of the plant material until date of Substantial Performance and commencement of two year warranty.
- E31.41 Replace any dead or damaged plant material during the maintenance period, including replacement of vandalized material.
- E31.42 Water sufficiently to maintain optimum growing conditions. Ensure adequate moisture in root zone at freeze-up.
- E31.43 The Contractor shall provide all necessary equipment, including: tractors, mowers, hand mowers, trimmers, fertilizer spreaders, pruning tools, hoses, water meters, and any other items necessary for the maintenance of the plant material indicated in this Specification.
- E31.44 Remove all weeds and debris from mulch beds, planting beds and tree wells on a weekly basis.
- E31.45 Turn and top up mulch in beds and tree wells each spring and prior to start of extended maintenance.

PERSONNEL

- E31.46 The Contractor shall provide all necessary personnel for the ongoing maintenance operations.
- E31.47 Personnel should have at least one year of experience in landscape maintenance and should be under the direction of a foreman, in all cases, with not less than five years of experience with similar maintenance operations.

MAINTENANCE METHODS

WATERING

- E31.48 Trees shall be watered twice weekly, or during the summer, if temperatures are fairly high and there has been no rainfall, water approximately once a week.
- E31.49 To determine the need for watering, make a soil test weekly with a one-inch auger. Take a test sample from both the planting soil and from the root ball by drilling to a minimum depth of 600

mm. The soil shall contain enough moisture to hold together when compressed in the hand, but not be muddy.

FERTILIZING

- E31.50 Because of the specialized nature of such operations, fertilizing is to be done by a qualified local arborist.
- E31.51 Fertilize in the fall over the surface of the ground surrounding the plants, then soak the area thoroughly, use 10-6-4 analysis fertilizer spreading a maximum of 0.13 kg per square metre.

SPRAYING

- E31.52 Spray trees to control insect pests and diseases. Use horticulturally recommended compounds specific for the problem to be contained.

INSECTS AND DISEASES

- E31.53 Spray plants to combat pests and diseases. Do not use DDT or sprays prohibited by Agriculture Canada.

Measurement and Payment

- E31.54 Supply and Installation of Plant Material will be measured and paid on a unit basis as indicated for "Supply and install deciduous trees" on Bid Form B Prices. The number of units to be paid shall be the total number of each type and size of units supplied and installed in accordance with the Drawings and Specifications and as measured and accepted by the Contract Administrator.
- E31.55 Supply and Installation of Plant Material will be measured and paid on a unit basis as indicated for "Supply and install perennials" on Bid Form B Prices. The number of units to be paid shall be the total number of each type and size of units supplied and installed in accordance with the Drawings and Specifications and as measured and accepted by the Contract Administrator.

E32. TOPSOIL AND FINISH GRADING

- E32.1 All Work to be to CW 3540.

Measurement and Payment

- E32.2 There shall be no separate measurement for the Work associated with this Specification.
- E32.3 Payment for Work specified under this Specification is to be included with the price for Sodding.

E33. SODDING

- E33.1 All Work to be to CW 3510.

Measurement and Payment

- E33.2 Sodding will be measured on an area basis. The area to be paid for shall be the total number of square meters sodded and maintained in accordance with this Specification and accepted by the Contract Administrator, as computed from measurements made by the Contract Administrator. Sodding will be paid for at the Contract Unit Price per square metre for 'Supply and Install Topsoil and Sod', measured as specified herein, which price shall be payment in full for completing all operations herein described and all other items incidental to the Work included in this Specification.

E34. EXTENDED MAINTENANCE

DESCRIPTION

- E34.1 This Specification shall deal with the maintenance of the trees and planting beds for Two (2) calendar years until after the date of the Substantial Performance has been issued.

MATERIALS AND PERSONNEL

- E34.2 The Contractor shall provide all necessary equipment, including: tractors, trimmers, fertilizer spreaders, pruning tools, water trucks, hoses, water meters, and any other items necessary for the maintenance of the area indicated in this Specification.

- E34.3 The Contractor shall provide all necessary personnel for the ongoing maintenance operations

WORK INCLUDED

- E34.4 The following areas shall be part of the maintenance jurisdiction:

- (a) The trees as indicated on the Drawings
- (b) Planting beds as indicated on the Drawings.

MAINTENANCE OF PLANT MATERIAL

- E34.5 Watering

- (a) All plant material shall be watered bi-weekly, or during the summer, if temperatures are fairly high and there has been no rainfall, water approximately once a week. Where irrigation is not available this should be executed by leaving a hose, with a gentle rate of flow, running into the saucer of the root ball for about one hour
- (b) To determine the need for watering, make a soil test weekly with a one-inch auger. Take a test sample from both the planting soil and from the root ball by drilling to a minimum depth of 600 mm. The soil shall contain enough moisture to hold together when compressed in the hand, but shall not be muddy.

- E34.6 Fertilizing and pest control

- (a) Fertilizing, Pruning and Spraying Deciduous Trees. Because of the specialized nature of such operations, this should be done by a qualified local arborist
- (b) Fertilize in the fall over the surface of the ground surrounding the plants, then soak the area thoroughly. Use 10-6-4 analysis fertilizer spreading a maximum of 0.13 kg per square meter.
- (c) Spray to control insect pests and diseases. Use horticulturally recommended compounds specific for the problem to be contained.

- E34.7 Weeding

- (a) Remove all weeds in tree wells, planting beds and mulch beds by hand on a weekly basis. Do not use chemical weed killer.
- (b) Remove all debris from beds, including weeds, and dispose of off Site in a legal manner.

- E34.8 Other Maintenance

- (a) Tighten, or remove, turnbuckles or guy wires for trees as required or directed by the Contract Administrator.
- (b) Straighten trees as required and directed by the Contract Administrator.

- E34.9 The Contractor shall agree and guarantee to replace and replant any nursery stock found dead or in poor condition during and at the completion of the maintenance period. All plant material to be replaced and maintained for a minimum of 30 days prior to end of maintenance period. "Poor Condition" shall be interpreted as meaning nursery stock in which branches are dead or

dying, or have not shown satisfactory growth of leaves. All replacements shall be of same size and species, as specified.

- E34.10 Upon the end of the required maintenance period, a Site inspection shall be held. If at this time, all material and Works is satisfactory the Contract for maintenance and warranty shall be terminated. If materials and Works are found unacceptable the warranty shall be extended by 30 days for a follow up inspection. Extension of warranty will continue in 30 day increments for inspection until all Work and material are satisfactory.

MEASUREMENT AND PAYMENT

Extended Maintenance will be measured and paid for each year at the Contract per Year Lump Sum Price for "2 Year Extended Maintenance on Plant Material"; which price shall be payment in full for supply of all materials and performing all operations herein described and for all other items incidental to the Work included in this Specification.

E35. PROJECT SEQUENCING

- E35.1 The Contractor is advised that the City anticipates sequencing as follows:

(a) Design

- (i) The Contractor shall, upon award of the contract, meet with the Contract Administrator to clarify and confirm the detailed conceptual design and engineering plan submitted in the Contractors proposal.
- (ii) The contractor shall engage a geotechnical soil engineer to provide survey and recommendations for construction.
- (iii) The Contractor shall develop the Design to a level sufficient for construction and permitting. This shall include structural, mechanical and electrical engineering drawings, grading drawings, layout drawings, and construction details.
- (iv) Periodic review is required during the design process and will be negotiated at a pre-work meeting with the City of Winnipeg.
- (v) Submissions during the Design Phase shall include; Drawings, Specifications for Construction
- (vi) The Contractor shall submit drawings for review at the 66% stage.
- (vii) The Contractor shall submit drawings and specifications for review at the 99% stage.
- (viii) The Contractor shall receive written approval from the Contract Administrator after each submission prior to proceeding to the next stage.
- (ix) All applicable items will to be designed and constructed in accordance with City of Winnipeg Standard Construction Specifications, this document and all Manitoba Codes. Where items are not covered by the City of Winnipeg Standard Construction Specifications Contractor is to submit specification to the City for review. Specifications will not be used for construction until accepted by the City of Winnipeg.
- (x) The Contractor will submit drawings and specifications to the appropriate authorities for Permitting purposes. Drawings shall be stamped as appropriate by the responsible design professional. Permitting and all fees are the responsibility of the Contractor.

(b) Construction

- (i) Construction shall be staged to meet the Critical Dates, Substantial and Total Performance.
- (ii) The work is to be completed and the necessary permits in place to open the spray pad to the public by Total Performance.
- (iii) Design professionals responsible for the design of the project shall conduct periodic reviews during the construction of the project and provide written confirmation of acceptance of the work to the Contract Administrator.
- (iv) Construction timelines will be reviewed weekly during construction phase.

- (c) Commissioning
 - (i) Operation and Maintenance manuals, as well as initial staff training, shall be complete prior to Substantial Performance.
 - (ii) Contractor to winterize the work and provide Spring Start-Up for the following season.

E36. DESIGN PHASE

E36.1 Guiding Principles

Vision – An inclusive engaging play space with rest areas in sun and shade integrated into the existing park.

Values:

- (a) Inclusiveness and accessibility:
- (b) Safe and Secure:
 - Maintain views into the site from the surrounding area.
 - The Public Health Act (C.C.S.M. c. p210) Manitoba Regulation 132/97 and subsequent amendments as it relates to the design, construction, and mechanical operation of spray pads and equipment.

E36.2 Existing Site Conditions

- (a) Contractor is to be aware that the sites may contain existing underground structures and services including but not limited to high voltage buried cable, natural gas, water, etc.
 - (i) Underground structure data from the City is provided as a convenience to the Contractor only. Contractor is not to rely on this information but to arrange for on site location of all utilities and underground services and structures and obtain all clearances required for the project.
 - (ii) Contractor is to maintain offsets from underground services as may be required by the authorities concerned.
 - (iii) If any trees are damaged, they will be assessed by the City Forester to determine if the tree is salvageable and what the cost will be to remedy the tree, or if the tree must be removed for safety or the health of the tree a financial value for replacement compensation.
 - (iv) Any cost to remedy the tree or the financial value of the tree shall be paid by the Contractor at his own cost.
 - (v) Contractor to provide geotechnical investigation report for design of spray pad.

E37. CONSTRUCTION PHASE

E37.1 General

- (a) Unless otherwise stated, the Contractor shall furnish all superintendence, overhead, labour, materials, equipment, tools, supplies and all other things necessary for and incidental to the satisfactory performance and completion of all Work as hereinafter specified and in accordance with the referenced standard City specification and construction details.
- (b) The Contractor shall construct the Work in accordance with the design produced during the design phase.
- (c) Construction materials, methods and procedures shall be performed in accordance with the standards set out in *The City of Winnipeg Standard Construction Specifications*. Obtain the Contract Administrators approval if the Contractor will deviate from *The City of Winnipeg Standard Construction Specifications*.

- (d) The Contractor shall document and advise the Contract Administrator of any alteration, modification, deletion, or substitutions to the approved design prior to incorporating said alterations, modifications, deletions or substitutions into the Work.
- (e) All Workmanship and all materials furnished and supplied under this Contract are subject to the close and systematic inspection or review and testing by the Contract Administrator including all operations from the selection and production of materials through to final acceptance of the Work. The Contractor shall be wholly responsible for the control of all operations incidental thereto notwithstanding any inspection, review or approval that may have been previously given. The Contract Administrator reserves the right to reject any materials or Works, which are not in accordance with the requirements of this Contract.
- (f) Contractor to provide first year winterizing and spring start-up with training sessions for City of Winnipeg staff. Sessions to include information on all mechanical and electrical equipment.

E37.2 Shop Drawings

- (a) Shop Drawings will be reviewed by the Contract Administrator for general conformance to the City's requirements only.
- (b) Shop Drawings are to be reviewed by the design professional responsible for the design prior to submission to the Contract Administrator.
- (c) Submit shop drawings and equipment catalogue data and manufacturer's installation operating and maintenance instructions for approval of the following items:
 - (i) Disconnect switched and fuses
 - (ii) Over-current devices, including ground fault interruption circuit breakers
 - (iii) Primary control system including activation switch, timers, electronic sequencer(s), and wiring schematic
 - (iv) Electrical grounding / protection equipment
 - (v) Equipment support details
 - (vi) Excavation and concrete details
 - (vii) Spray features
 - (viii) Speciality products
 - (ix) Drains / Covers

E37.3 Record Drawings

- (a) The Contractor shall keep on the Site one (1) up to date copy of all specifications, drawings, and bulletins pertaining to the Work, in good order, available to the Contract Administrator and to his representatives.
- (b) Such specifications and drawings need to be marked by the Contractor to show all Work 'As-Built' as Work proceeds. The Contractor shall modify the Drawings to 'As-Built' bearing notations of all changes and variations from the original and submit these to the Contract Administrator for approval.
- (c) If required, in the opinion of the Contract Administrator, further revisions will be made to the Drawings by the Contractor until the Drawings are accepted by the Contract Administrator.
- (d) Accuracy of these drawings shall be the responsibility of the Contractor, who shall bear all expenses of corrections thereto.
- (e) The Contractor shall have a full topographic survey done of the completed works to be included in the 'As-Built' drawings.
- (f) Said Drawings will be provided to the Contract Administrator during the Commissioning stage of the project as revised Autocad files (.dwg format). Drawings are to include all information as determined under items (a) to (e) above.
- (g) Contractor to make geotechnical report available to the city as part of the record drawings.

E38. SITE RESTORATION

E38.1 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.

E39. COMMISSIONING

E39.1 System Start-up and First 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 as per D20.1 (a).
- (c) 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.
- (d) Contractor to perform system start-up in the spring with training for City staff following the first winter shut down with training for City staff. Training will be a minimum of 1 day per session with City staff.

E39.2 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, 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.

E39.3 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 for each session.

E39.4 Payment shall be as per Form B: Prices at the price for item "Commissioning".