



**THE CITY OF WINNIPEG**

# **BID OPPORTUNITY**

**BID OPPORTUNITY NO. 44-2016**

**STURGEON ROAD ATHLETIC FIELDS – SOCCER FIELD CONSTRUCTION**

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## **PART B - BIDDING PROCEDURES**

### **B1. CONTRACT TITLE**

B1.1 STURGEON ROAD ATHLETIC FIELDS – SOCCER FIELD CONSTRUCTION

### **B2. SUBMISSION DEADLINE**

B2.1 The Submission Deadline is 4:00 p.m. Winnipeg time, March 23, 2016.

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

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

### **B3. SITE INVESTIGATION**

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

### **B4. ENQUIRIES**

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

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

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

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

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

### **B5. CONFIDENTIALITY**

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

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

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

## **B6. ADDENDA**

- B6.1 The Contract Administrator may, at any time prior to the Submission Deadline, issue addenda correcting errors, discrepancies or omissions in the Bid Opportunity, or clarifying the meaning or intent of any provision therein.
- B6.2 The Contract Administrator will issue each addendum at least two (2) Business Days prior to the Submission Deadline, or provide at least two (2) Business Days by extending the Submission Deadline.
- B6.2.1 Addenda will be available on the Bid Opportunities page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>
- B6.2.2 The Bidder is responsible for ensuring that he/she has received all addenda and is advised to check the Materials Management Division website for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.
- B6.2.3 The Bidder shall acknowledge receipt of each addendum in Paragraph 8 of Form A: Bid. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.

## **B7. SUBSTITUTES**

- B7.1 The Work is based on the Plant, Materials and methods specified in the Bid Opportunity.
- B7.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.
- B7.3 Requests for approval of a substitute will not be considered unless received in writing by the Contract Administrator at least five (5) Business Days prior to the Submission Deadline.
- B7.4 The Bidder shall ensure that any and all requests for approval of a substitute:
- (a) provide sufficient information and details to enable the Contract Administrator to determine the acceptability of the Plant, Material or method as either an approved equal or alternative;
  - (b) identify any and all changes required in the applicable Work, and all changes to any other Work, which would become necessary to accommodate the substitute;
  - (c) identify any anticipated cost or time savings that may be associated with the substitute;
  - (d) certify that, in the case of a request for approval as an approved equal, the substitute will fully perform the functions called for by the general design, be of equal or superior substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed Work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance;
  - (e) certify that, in the case of a request for approval as an approved alternative, the substitute will adequately perform the functions called for by the general design, be similar in substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance.
- B7.5 The Contract Administrator, after assessing the request for approval of a substitute, may in his/her sole discretion grant approval for the use of a substitute as an "approved equal" or as an "approved alternative", or may refuse to grant approval of the substitute.
- B7.6 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, to the Bidder who requested approval of the substitute.

- B7.6.1 The Contract Administrator will issue an Addendum, disclosing the approved materials, equipment, methods and products to all potential Bidders. The Bidder requesting and obtaining the approval of a substitute shall be responsible for disseminating information regarding the approval to any person or persons he/she wishes to inform.
- B7.7 If the Contract Administrator approves a substitute as an “approved equal”, any Bidder may use the approved equal in place of the specified item.
- B7.8 If the Contract Administrator approves a substitute as an “approved alternative”, any Bidder bidding that approved alternative may base his/her Total Bid Price upon the specified item but may also indicate an alternative price based upon the approved alternative. Such alternatives will be evaluated in accordance with B16.
- B7.9 No later claim by the Contractor for an addition to the Total Bid Price because of any other changes in the Work necessitated by the use of an approved equal or an approved alternative will be considered.

## **B8. BID COMPONENTS**

- B8.1 The Bid shall consist of the following components:
- (a) Form A: Bid;
  - (b) Form B: Prices;
- B8.2 Further to B8.1, the Bidder should include the written correspondence from the Contract Administrator approving a substitute in accordance with B7.
- B8.3 All components of the Bid shall be fully completed or provided, and submitted by the Bidder no later than the Submission Deadline, with all required entries made clearly and completely, to constitute a responsive Bid.
- B8.4 The Bid Submission may be submitted by mail, courier or personal delivery, or by facsimile transmission.
- B8.5 If the Bid Submission is submitted by mail, courier or personal delivery, it shall be enclosed and sealed in an envelope clearly marked with the Bid Opportunity number and the Bidder's name and address, and shall be submitted to:
- The City of Winnipeg  
Corporate Finance Department  
Materials Management Division  
185 King Street, Main Floor  
Winnipeg, MB R3B 1J1
- B8.5.1 Samples or other components of the Bid Submission which cannot reasonably be enclosed in the envelope may be packaged separately, but shall be clearly marked with the Bid Opportunity number, the Bidder's name and address, and an indication that the contents are part of the Bidder's Bid Submission.
- B8.6 Bidders are advised not to include any information/literature except as requested in accordance with B8.1.
- B8.7 Bidders are advised that inclusion of terms and conditions inconsistent with the Bid Opportunity document, including the General Conditions, will be evaluated in accordance with B16.1(a).
- B8.8 If the Bid Submission is submitted by facsimile transmission, it shall be submitted to 204 949-1178.
- B8.8.1 The Bidder is advised that the City cannot take responsibility for the availability of the facsimile machine at any time.
- B8.8.2 Bids submitted by internet electronic mail (e-mail) will not be accepted.

## **B9. BID**

- B9.1 The Bidder shall complete Form A: Bid, making all required entries.
- B9.2 Paragraph 2 of Form A: Bid shall be completed in accordance with the following requirements:
- (a) if the Bidder is a sole proprietor carrying on business in his/her own name, his/her name shall be inserted;
  - (b) if the Bidder is a partnership, the full name of the partnership shall be inserted;
  - (c) if the Bidder is a corporation, the full name of the corporation shall be inserted;
  - (d) if the Bidder is carrying on business under a name other than his/her own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.
- B9.2.1 If a Bid is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B9.2.
- B9.3 In Paragraph 3 of Form A: Bid, the Bidder shall identify a contact person who is authorized to represent the Bidder for purposes of the Bid.
- B9.4 Paragraph 10 of Form A: Bid shall be signed in accordance with the following requirements:
- (a) if the Bidder is a sole proprietor carrying on business in his/her own name, it shall be signed by the Bidder;
  - (b) if the Bidder is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;
  - (c) if the Bidder is a corporation, it shall be signed by its duly authorized officer or officers;
  - (d) if the Bidder is carrying on business under a name other than his/her own, it shall be signed by the registered owner of the business name, or by the registered owner's authorized officials if the owner is a partnership or a corporation.
- B9.4.1 The name and official capacity of all individuals signing Form A: Bid should be printed below such signatures.
- B9.4.2 All signatures shall be original.
- B9.5 If a Bid is submitted jointly by two or more persons, the word "Bidder" shall mean each and all such persons, and the undertakings, covenants and obligations of such joint Bidders in the Bid and the Contract, when awarded, shall be both joint and several.

## **B10. PRICES**

- B10.1 The Bidder shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.
- B10.2 The quantities listed on Form B: Prices are to be considered approximate only. The City will use said quantities for the purpose of comparing Bids.
- 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. DISCLOSURE**

- B11.1 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.

B11.2 The Persons are:

(a) N/A

B11.3 Additional Material:

(a) N/A

## **B12. QUALIFICATION**

B12.1 The Bidder shall:

- (a) undertake to be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba; and
- (b) be financially capable of carrying out the terms of the Contract; and
- (c) have all the necessary experience, capital, organization, and equipment to perform the Work in strict accordance with the terms and provisions of the Contract.

B12.2 The Bidder and any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

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

B12.3 The Bidder and/or any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

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

B12.4 Further to B12.3(c), the Bidder shall, within five (5) Business Days of a request by the Contract Administrator, provide proof satisfactory to the Contract Administrator that the Bidder/Subcontractors has a workplace safety and health program meeting the requirements of The Workplace Safety and Health Act (Manitoba), by providing:

- (a) a 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
- (b) 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
- (c) 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/>).

B12.5 The Bidder shall submit, within three (3) Business Days of a request by the Contract Administrator, proof satisfactory to the Contract Administrator of the qualifications of the Bidder and of any proposed Subcontractor.

B12.6 The Bidder shall provide, on the request of the Contract Administrator, full access to any of the Bidder's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Bidder's equipment and facilities are adequate to perform the Work.

### **B13. OPENING OF BIDS AND RELEASE OF INFORMATION**

B13.1 Bids will not be opened publicly.

B13.2 Following the submission deadline, the names of the Bidders and their Total Bid Prices (unevaluated, and pending review and verification of conformance with requirements) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/bidopp.asp>

B13.3 After award of Contract, the name(s) of the successful Bidder(s) and the Contract amount(s) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>

B13.4 The Bidder is advised that any information contained in any Bid may be released if required by City policy or procedures, by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law.

### **B14. IRREVOCABLE BID**

B14.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 9 of Form A: Bid.

B14.2 The acceptance by the City of any Bid shall not release the Bids of the next two lowest evaluated responsive Bidders and these Bidders shall be bound by their Bids on such Work for the time period specified in Paragraph 9 of Form A: Bid.

### **B15. WITHDRAWAL OF BIDS**

B15.1 A Bidder may withdraw his/her Bid without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.

B15.1.1 Notwithstanding C23.3, the time and date of receipt of any notice withdrawing a Bid shall be the time and date of receipt as determined by the Manager of Materials.

B15.1.2 The City will assume that any one of the contact persons named in Paragraph 3 of Form A: Bid or the Bidder's authorized representatives named in Paragraph 10 of Form A: Bid, and only such person, has authority to give notice of withdrawal.

B15.1.3 If a Bidder gives notice of withdrawal prior to the Submission Deadline, the Manager of Materials will:

- (a) retain the Bid until after the Submission Deadline has elapsed;
- (b) open the Bid to identify the contact person named in Paragraph 3 of Form A: Bid and the Bidder's authorized representatives named in Paragraph 10 of Form A: Bid; and
- (c) if the notice has been given by any one of the persons specified in B15.1.3(b), declare the Bid withdrawn.

B15.2 A Bidder who withdraws his/her Bid after the Submission Deadline but before his/her Bid has been released or has lapsed as provided for in B14.2 shall be liable for such damages as are imposed upon the Bidder by law and subject to such sanctions as the Chief Administrative Officer considers appropriate in the circumstances. The City, in such event, shall be entitled to all rights and remedies available to it at law.

## **B16. EVALUATION OF BIDS**

- B16.1 Award of the Contract shall be based on the following bid evaluation criteria:
- (a) compliance by the Bidder with the requirements of the Bid Opportunity or acceptable deviation there from (pass/fail);
  - (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B12 (pass/fail);
  - (c) Total Bid Price;
  - (d) economic analysis of any approved alternative pursuant to B7.
- B16.2 Further to B16.1(a), the Award Authority may reject a Bid as being non-responsive if the Bid is incomplete, obscure or conditional, or contains additions, deletions, alterations or other irregularities. The Award Authority may reject all or any part of any Bid, or waive technical requirements or minor informalities or irregularities, if the interests of the City so require.
- B16.3 Further to B16.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in his/her Bid or in other information required to be submitted, that he/she is responsible and qualified.
- B16.4 Further to B16.1(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 adjusted, if necessary, as follows:
- (a) if the lowest evaluated responsive Bid submitted by a responsible and qualified Bidder is within the budgetary provision for the Work, no adjustment will be made to the Total Bid Price; or
  - (b) if the lowest evaluated responsive Bid submitted by a responsible and qualified Bidder exceeds the budgetary provision for the Work, the Total Bid Prices of all responsive Bids submitted by responsible and qualified Bidders will be adjusted by progressively deducting item(s) 14, 13, 12, 11, and 10 in the order listed, until a Total Bid Price within the budgetary provision is achieved.
- B16.4.1 Further to B16.1(a), in the event that a unit price is not provided on Form B: Prices, the City will determine the unit price by dividing the Amount (extended price) by the approximate quantity, for the purposes of evaluation and payment.

## **B17. AWARD OF CONTRACT**

- B17.1 The City will give notice of the award of the Contract or will give notice that no award will be made.
- B17.2 The City will have no obligation to award a Contract to a Bidder, even though one or all of the Bidders are determined to be responsible and qualified, and the Bids are determined to be responsive.
- B17.2.1 Without limiting the generality of B17.2, the City will have no obligation to award a Contract where:
- (a) the prices exceed the available City funds for the Work;
  - (b) the prices are materially in excess of the prices received for similar work in the past;
  - (c) the prices are materially in excess of the City's cost to perform the Work, or a significant portion thereof, with its own forces;
  - (d) only one Bid is received; or
  - (e) in the judgment of the Award Authority, the interests of the City would best be served by not awarding a Contract.
- B17.3 Where an award of Contract is made by the City, the award shall be made to the responsible and qualified Bidder submitting the lowest evaluated responsive Bid, in accordance with B16.

- B17.3.1 Following the award of Contract, a Bidder will be provided with information related to the evaluation of his/her Bid upon written request to the Contract Administrator.
- B17.4 Notwithstanding C4, the City may issue a Purchase Order to the successful Bidder in lieu of the execution of a Contract.
- B17.5 The Contract, as defined in C1.1, in its entirety shall be deemed to be incorporated in and to form a part of the Purchase Order notwithstanding that it is not necessarily attached to or accompany said Purchase Order.

## PART C - GENERAL CONDITIONS

### C0. GENERAL CONDITIONS

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

## **PART D - SUPPLEMENTAL CONDITIONS**

### **GENERAL**

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

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

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

D2.1 The Work to be done under the Contract shall consist of the construction of one (1) soccer field and associated land drainage work around the soccer field.

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

- (a) Rough Grading
- (b) Topsoil and sodding
- (c) Underground granular drainage channels
- (d) Supply and installation of two (2) catch basins and associated Leads
- (e) Multi-flow drainage pipe system

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

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

Ken Rech  
Landscape Architect  
Telephone No. 204 489-6616  
E.mail: kenrech@mts.net

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

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

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

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

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

D5.1 The Contract, all deliverables produced or developed, and information provided to or acquired by the Contractor are the property of the City and shall not be appropriated for the Contractors own use, or for the use of any third party.

D5.2 The Contractor shall not make any public announcements or press releases regarding the Contract, without the prior written authorization of the Contract Administrator.

D5.3 The following shall be confidential and shall not be disclosed by the Contractor to the media or any member of the public without the prior written authorization of the Contract Administrator;

- (a) information provided to the Contractor by the City or acquired by the Contractor during the course of the Work;
- (b) the Contract, all deliverables produced or developed; and

(c) any statement of fact or opinion regarding any aspect of the Contract.

D5.4 A Contractor who violates any provision of D5 may be determined to be in breach of Contract.

## **D6. NOTICES**

D6.1 Except as provided for in C23.2.2, all notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the Contractor shall be sent to the address or facsimile number identified by the Contractor in Paragraph 2 of Form A: Bid.

D6.2 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the City, except as expressly otherwise required in D6.3, D6.4 or elsewhere in the Contract, shall be sent to the attention of the Contract Administrator at the facsimile number identified in D3.1.

D6.3 Notwithstanding C21., all notices of appeal to the Chief Administrative Officer shall be sent to the attention of the Chief Financial Officer at the following facsimile number:

The City of Winnipeg  
Chief Financial Officer

Facsimile No.: 204 949-1174

D6.4 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications required to be submitted or returned to the City Solicitor shall be sent to the following facsimile number:

The City of Winnipeg  
Legal Services Department  
Attn: Director of Legal Services

Facsimile No.: 204 947-9155

**D6.5 Bids Submissions must be submitted to the address in B8.5.**

## **SUBMISSIONS**

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

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

### **D8. SAFE WORK PLAN**

D8.1 The Contractor shall provide the Contract Administrator with a Safe Work Plan at least five (5) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.

D8.2 The Safe Work Plan should be prepared and submitted in the format shown in the City's template which is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/Safety/default.stm>

### **D9. INSURANCE**

D9.1 The Contractor shall provide and maintain the following insurance coverage:

- (a) commercial general liability insurance, in the amount of at least two million dollars (\$2,000,000.00) inclusive, with The City of Winnipeg and Ken Rech Landscape Architects Inc. added as an additional insured, with a cross-liability clause, such liability policy to also contain contractual liability, unlicensed motor vehicle liability, non-owned automobile liability and products and completed operations, to remain in place at all times during the performance of the Work and throughout the warranty period;
- (b) if applicable, Automobile Liability Insurance covering all motor vehicles, owned and operated and used or to be used by the Contractor directly or indirectly in the performance of the Work. The Limit of Liability shall not be less than \$2,000,000 inclusive for loss or damage including personal injuries and death resulting from any one accident or occurrence;
- (c) all risks installation floater, carrying adequate limits to cover all machinery, equipment, supplies and/or materials intended to enter into and form part of any installation.

D9.2 Deductibles shall be borne by the Contractor.

D9.3 The Contractor shall provide the Contract Administrator with a certificate(s) of insurance, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Work but in no event later than seven (7) Calendar Days from notification of the award of Contract by Purchase Order.

D9.4 The Contractor shall not cancel, materially alter, or cause each policy to lapse without providing at least thirty (30) Calendar Days prior written notice to the Contract Administrator.

## **D10. PERFORMANCE SECURITY**

D10.1 If the Contract Price exceeds twenty-five thousand dollars (\$25,000.00), the Contractor shall provide and maintain performance security until the expiration of the warranty period in the form of:

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

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

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

## **D11. SUBCONTRACTOR LIST**

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

## **SCHEDULE OF WORK**

### **D12. COMMENCEMENT**

- D12.1 The Contractor shall not commence any Work until he/she is in receipt of a Purchase Order from the Award Authority authorizing the commencement of the Work.
- D12.2 The Contractor shall not commence any Work on the Site until:
- (a) the Contract Administrator has confirmed receipt and approval of:
    - (i) evidence of authority to carry on business specified in D7;
    - (ii) evidence of the workers compensation coverage specified in C6.15;
    - (iii) the Safe Work Plan specified in D8;
    - (iv) evidence of the insurance specified in D9;
    - (v) the performance security specified in D10;
    - (vi) the Subcontractor list specified in D11; and
  - (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.
- D12.3 The Contractor shall commence the Work on the Site within seven (7) Working Days of receipt of the Purchase Order.

### **D13. SUBSTANTIAL PERFORMANCE**

- D13.1 The Contractor shall achieve Substantial Performance within forty (40) consecutive Working Days of the commencement of the Work as specified in D12.
- D13.2 When the Contractor considers the Work to be substantially performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Substantial Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be re-inspected.
- D13.3 The date on which the Work has been certified by the Contract Administrator as being substantially performed to the requirements of the Contract through the issue of a certificate of Substantial Performance is the date on which Substantial Performance has been achieved.

### **D14. TOTAL PERFORMANCE**

- D14.1 The Contractor shall achieve Total Performance within forty five (45) consecutive Working Days of the commencement of the Work as specified in D12.
- D14.2 When the Contractor or the Contract Administrator considers the Work to be totally performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Total Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be re-inspected.
- D14.3 The date on which the Work has been certified by the Contract Administrator as being totally performed to the requirements of the Contract through the issue of a certificate of Total Performance is the date on which Total Performance has been achieved.

### **D15. LIQUIDATED DAMAGES**

- D15.1 If the Contractor fails to achieve Substantial Performance or Total Performance in accordance with the Contract by the day fixed herein for Substantial Performance or Total Performance, the Contractor shall pay the City five hundred dollars (\$500) per Calendar Day for each and every

Calendar Day following the day fixed herein for Substantial Performance or Total Performance during which such failure continues.

D15.2 The amount specified for liquidated damages in D15.1 is based on a genuine pre-estimate of the City's damages in the event that the Contractor does not achieve Substantial Performance or Total Performance by the day fixed herein for same.

D15.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

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

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

(a) Topsoil and Sodding as specified in E17

D16.2 Determination of Substantial Performance and Total Performance shall be exclusive of scheduled maintenance identified herein. All scheduled maintenance shall be completed prior to the expiration of the warranty period. Where the scheduled maintenance cannot be completed during the warranty period, the warranty period shall be extended for such period of time as it takes the Contractor to complete the scheduled maintenance.

#### **CONTROL OF WORK**

##### **D17. JOB MEETINGS**

D17.1 Regular weekly job meetings will be held at the Site. These meetings shall be attended by a minimum of one representative of the Contract Administrator, one representative of the City and one representative of the Contractor. Each representative shall be a responsible person capable of expressing the position of the Contract Administrator, the City and the Contractor respectively on any matter discussed at the meeting including the Work schedule and the need to make any revisions to the Work schedule. The progress of the Work will be reviewed at each of these meetings.

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

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

D18.1 Further to C6.24, the Contractor shall be the Prime Contractor and shall serve as, and have the duties of the Prime Contractor in accordance with The Workplace Safety and Health Act (Manitoba).

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

D19.1 Further to B12.4, the Contractor/Subcontractor must, throughout the term of the Contract, have a Workplace Safety and Health Program meeting the requirements of The Workplace Safety and Health Act (Manitoba). At any time during the term of the Contract, the City may, at its sole discretion and acting reasonably, require updated proof of compliance, as set out in B12.4.

#### **WARRANTY**

##### **D20. WARRANTY**

D20.1 Warranty is as stated in C13.

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

KNOW ALL MEN BY THESE PRESENTS THAT

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

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

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

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

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

BID OPPORTUNITY NO. 44-2016

STURGEON ROAD ATHLETIC FIELDS – SOCCER FIELD CONSTRUCTION

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

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

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

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

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

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

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

**SIGNED AND SEALED**  
in the presence of:

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

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

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

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

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

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

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

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

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

RE: PERFORMANCE SECURITY - BID OPPORTUNITY NO. 44-2016  
STURGEON ROAD ATHLETIC FIELDS – SOCCER FIELD CONSTRUCTION

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

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

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

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

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

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

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

Partial drawings are permitted.

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

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

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

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

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

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

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

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

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

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

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

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



## PART E - SPECIFICATIONS

### GENERAL

#### E1. APPLICABLE SPECIFICATIONS AND DRAWINGS

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

<u>Drawing No.</u>	<u>Drawing Name/Title</u>
L-1	Overall Site Grading Plan Based on Development of the Entire Site and Water Storage
L-2	Soccer Field No: 1 Grading and Layout Plan
L-3	Grading Details
L-4	Multi-Flow Plan
L-5	Multi-Flow Details
L-6	Multi-Flow Connection

#### E2. SOILS INVESTIGATION REPORT

- E2.1 Further to C3.1, the Contractor is advised a number of soil test pits were excavated throughout the Work area, and there is insufficient existing topsoil located below the existing grass, which would allow salvaging the existing topsoil for re-use. The Contractor shall not rely on being able to salvage any existing topsoil.

#### E3. EXISTING SERVICES AND UTILITIES

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

#### 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 is responsible to correcting all Site damage as a result of their operations, or accessing the Site at no further cost to the City. All repairs must be done to pre-construction conditions.
- E4.3 The Contractor's operations shall be limited to the minimum area necessary for undertaking the Work and he shall be responsible for all damage resulting from his Work on private property.
- E4.4 Access to the Site shall be off of Silver Avenue. The Contractor will have to install a culvert in the existing ditch located on the north side of Silver Avenue.

E4.5 The Contractor must protect the existing asphalt paved bicycle/walking path surface, which they must cross over when accessing the Site. Adequate warning signage must be posted, warning the pedestrians and cyclists of any hazards, well in advance of the crossing point, to the satisfaction and approval of the Contract Administrator.

E4.6 The Contractor will not be allowed to close off use of the asphalt paved bicycle/walking path, and may have to install flagman at the crossing to protect the public.

## **E5. PERMITS, NOTICES, LICENSES, CERTIFICATES, LAWS AND RULES**

E5.1 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.

E5.2 The Contract Administrator has applied for the Development Permit from the City of Winnipeg and the City of Winnipeg will pay for the permit fee, but not the damage deposit or lot grading deposit. It will be the Contractor's responsibility to pay for the lot grading and damage deposits and pick up the permit. The Contractor is made aware the lot grading and damage deposits are refundable subject to no damage occurring to the surrounding City property and the lot grading, complying with the approved Site grading drawings.

E5.3 The Contractor shall comply with all laws, ordinances, rules and regulations that would relate to the Work.

E5.4 All notices, consents, approvals, statements, authorizations, documents or other communications to the City shall be submitted to the Contract Administrator.

E5.5 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety Act.

E5.6 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety Fall Protection guidelines.

E5.7 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.

## **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 City of Winnipeg Contract Administrator, and the cost of which shall be borne entirely by the Contractor. The Contractor shall also indemnify and save harmless the City from all claims made directly or indirectly against it in respect to any such damage.

E6.2 The Contractor is made aware there is large gas line which runs through the Work area, and the Contractor must protect that underground utility. The Contractor shall locate and protect all utilities in the Work area.

E6.3 The Contractor shall take the following precautionary steps to prevent damage from construction activities to existing park trees within the limits of the construction area:

- (a) The Contractor shall not stockpile materials and soil or park vehicles and equipment within 2 metres of trees.

- (b) Trees identified to be at risk by the Contract Administrator are to be strapped with 25x100x2400 wood planks, or suitable protection as approved by the Contract Administrator.
- (c) Excavation shall be performed in a manner that minimizes damage to the existing root systems. Where possible, excavation shall be carried out such that the edge of the excavation shall be a minimum of 1.5 times the diameter (measured in inches), with the outcome read in feet, from the closest edge of the trunk. Where roots must be cut to facilitate excavation, they shall be pruned neatly at the face of excavation.
- (d) Operation of equipment within the drip line of the trees shall be kept to a minimum required to perform the Work required. Equipment shall not be parked, repaired, refuelled; construction materials shall not be stored, and earth materials shall not be stockpiled within the drip lines of trees. The drip line of a tree shall be considered to be the ground surface directly beneath the tips of its outermost branches. The Contractor shall ensure that the operations do not cause flooding or sediment deposition on areas where trees are located.

E6.4 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.

E6.5 No separate measurement or payment will be made for the protection of trees.

## **E7. PEDESTRIAN SAFETY AND TRAFFIC MANAGEMENT**

E7.1 Further to CW 1130-R1, the Contractor shall take such measures as are necessary to ensure safe and convenient pedestrian ingress and egress is maintained to private properties while he is Working near them. Any damage caused by the negligence of the Contractor or his Sub-Contractors to the adjacent Works or properties, shall be promptly repaired by him at his own expense, to the satisfaction of the Contract Administrator.

E7.2 Ambulance/ Emergency vehicle access must be maintained at all times.

E7.3 See section E4.5 and E4.6 for additional safety issues related to the public walkway.

## **E8. SITE ENCLOSURES**

E8.1 Temporary Site enclosures, The Contractor must erect safety fencing around all open trench or sewer excavations, where the trench will be left unattended by the Contractor.

## **E9. LAYOUT OF WORK**

E9.1 The Contractor shall set control lines and bench marks by means of stakes, buoys or marks and the Contractor shall make the completed Works conform to the lines and marks thus indicated. The Contractor shall furnish all other lines and levels required. The Contractor shall be responsible for the careful preservation of all stakes and marks. Care must be taken that the Contract Administrator be notified immediately of the disturbance of any such stakes or marks; the cost of correcting any errors arising out of neglect of the Contractor or his agent or his employees, to so notify the Contract Administrator shall be borne entirely by the Contractor, as well as the cost of replacing any disturbed stakes or marks.

E9.2 All layout Work shall be inspected and approved by the Contract Administrator prior to construction.

E9.3 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 of Winnipeg on account of any alleged inaccuracies. If any error is suspected in the plans, specifications or the directions of the Contract Administrator, Work shall be discontinued until the errors are rectified, but no claims shall be made on account of any delay occasioned thereby.

## **E10. SITE ACCESS ROADWAY RESTORATION**

- E10.1 Total Performance of the Work shall not be attained until the Contractor has cleaned up the Site and has removed all plant, tools, equipment, waste, debris and surplus foundation earth to the satisfaction of the Contract Administrator. Unless otherwise specified, the Contractor shall restore all areas of the Site beyond the established limit of Work, which have been disturbed by the Contractor's operations to as good as or better than the original condition to the satisfaction of the Contract Administrator. The Contractor shall pay all costs associated with this Work.
- E10.2 The Contractor must not damage any existing grass surrounding the Work area, and shall not allow any vehicles or materials onto those areas. The Contractor is made aware the surrounding soccer fields will remain in play during the course of construction.
- E10.3 All construction equipment must be contained within the construction area and not on the street.
- E10.4 The Contractor shall install four (4) wood bollards with a chain between the two middle bollards, for vehicle access and as shown in detail 7-L2. The wood bollards shall be installed in accordance with SCD 105-S Post and Chain Fencing.
- E10.5 Where the new CSP culvert will be installed in the existing ditch on the north side of Silver Avenue, the Contractor shall rough grade the area around the culvert to allow for vehicle access and upon completion of the project, install a 75 mm depth of topsoil and sod the area between Silver Avenue Roadway. Any sod damage north of the asphalt paved cycling/walking path shall be restored with a 100 mm depth of topsoil and be seeded or sodded. Side slopes on new roadway embankment shall not exceed 4:1.
- E10.6 Method of Measurement and Basis of Payment
- E10.6.1 Method of Measurement shall be as follows:
- (a) Site access and restoration shall be measured on a lump sum basis in Item 2: "Site access roadway, topsoil and sodding/seeding restoration c/w 4 wood bollards and chain" on Form B: Prices.

## **E11. REMOVAL OF EXISTING SOD LAYER**

- E11.1 The existing grass may be rototilled and utilized for filling purposes, provided the grass is rototilled to a min. 150 mm (6") depth with the existing topsoil/clay ground, and provided no sod pieces are greater than 75 mm x 75 mm size. The Contractor may have to undertake multiple rototilling passes in opposing directions to break up the sod to small pieces.
- E11.2 Prior to using the rototilled grass for fill the Contract Administrator must approve the grass has been thoroughly mixed with the topsoil and meets the specified maximum size.
- E11.3 Rototilling of the existing grass layer is to be included in Unit Price Item No: 3 "General Site rough grading for Soccer Field No: 1 and associated drainage ditches and dykes and imported fill".

## **E12. EARTHWORK AND GRADING**

- E12.1 This specification shall amend and supplement City Specification CW 3170-R3 and cover the operations relating to the earthwork and grading of the Site as shown on the Construction Drawings.
- E12.2 *All rough grading and finish grading must be undertaken using earthmoving equipment which is guided by laser or GPS controlled data.* Visual grade stakes shall also be installed to supplement the electronic data
- E12.3 The Contractor shall construct the soccer field and perimeter earth dyke and drainage ditches within the limits indicated, and as shown on the Construction Drawings.

- E12.4 The Contractor shall excavate or fill to the design grades shown less the appropriate allowance for surface treatment, topsoil and sod. All unsuitable materials of whatever nature encountered shall be excavated, removed and disposed of by the Contractor to the satisfaction of the Contract Administrator. Where design grades are not shown, the new surface materials shall be installed to meet flush with surrounding grades, and sloped so as not to impede the existing drainage pattern.
- E12.5 Construction to the new design grades shall be accomplished by the excavation of material from high areas (around perimeter edge), and using the suitable excavated material along with imported clean earth fill for filling in the low areas as indicated by the elevations shown on Construction Drawings. Backfill shall be placed in a dry, thawed condition and shall be maintained free of moisture or frost.
- E12.6 The perimeter area along the outside edges of the field, as defined by the heavy broken line shown on drawing detail 1-L2 shall be cut with a vertical shearing operation, such as using a sharp spade or edger, to create a clean and definite line for the new sod to abut flush to.
- E12.7 The design gradient for all other areas shall be considered to be straight grade between the finished design elevations shown. Changes in grade at swales or where it meets existing sod to remain shall be gently contoured as directed by the Contract Administrator to provide future ease of grass mowing operations.
- E12.8 In fill areas where the difference between the existing ground elevation and the new finished design elevation is less than 300 mm, the Contractor shall scarify the existing ground to a minimum depth of 50 mm prior to placement of any fill.
- E12.9 The Contractor shall import additional fill as required to meet the new finished sub-grade elevations and the soil fill shall be imported clean clay or topsoil fill from off-site sources. No further payment will be made for importing off-site fill.
- E12.10 All surplus fill material shall be removed and legally disposed off-site by the Contractor. No further payment will be made for disposing of surplus fill.
- E12.11 The Contractor shall construct all sub-grades in accordance with Specification CW 3110-R9. This shall include the use of suitable compaction equipment as approved by the Contract Administrator to achieve a minimum compaction of 95% Standard proctor Density. Lifts shall not exceed a compacted thickness of 150 mm.
- E12.12 Following earthmoving, rough grading and compaction, the Work areas shall be fine graded to provide a maximum deviation of 50 mm in 10 metres from the design grade with no low areas that 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 50 mm in maximum dimensions.
- E12.13 Method of Measurement and Basis of Payment
- E12.13.1 Method of Measurement shall be as follows:
- (a) Earthwork and grading shall be measured on a lump sum basis in No: 3 "General Site rough grading for Soccer Field No: 1 and associated drainage ditches and imported fill" and on Form B: Prices.

### **E13. PIPE CULVERTS**

- E13.1 Pipe culverts shall be installed in accordance with CW 3610 Specification for Installation of Culverts.
- E13.2 Culverts shall be CSP (corrugated galvanized steel pipe), 600 mm diameter and length indicated on drawing detail 1-L2.

- E13.3 Install culvert in location of ditch where the existing grade is the lowest, and in the direction of drainage, to the invert elevations shown on drawing detail 1-L2.
- E13.4 Backfill around culvert with compacted clay. Use compacted clay fill to build up grade over top of the culvert for the new site access road approach.

#### Measurement and Payment

- E13.5 Cost for culverts will be paid for on a per unit basis, as indicated in the unit price form in Unit Cost Item No. 1 "Supply and install 600 mm dia. x 13 metre long CSP culvert" and on Form B: Prices.

### **E14. UNDERGROUND GRANULAR DRAINAGE CHANNEL**

- E14.1 This specification covers the supply and installation of new underground granular drainage channels to carry the rain water to the new catch basins. See details 1 & 2 - L3 for the construction detail.
- E14.2 Materials
- (a) Drainage pipe: "Goldline" 100 mm dia. (4") perforated drainage pipe, complete with fittings and polyester sock or approved substitute in accordance with B7.
  - (b) Filter Fabric: Armtec 200, non-woven geotextile, or approved substitute in accordance with B7.
  - (c) Limestone Backfill in Trench: 19 mm (3/4") diameter, clean limestone free of fine particles.
  - (d) Limestone Cap over Trench Top: 6 mm (1/4") diameter, crushed limestone down.

#### Construction Method

- E14.3 The Contractor shall install an underground granular drainage channel on the west and east sides of the soccer field, as located on drawing 1-L2. The drainage channel shall be installed using laser or GPS guided equipment to achieve the invert grade elevations of the trench.
- E14.4 Prior to installing the drainage channel stake the location and ensure the distances and clearances comply with the drawing layout shown on detail 6-L2. Notify the Contract Administrator of any conflicts.
- E14.5 The underground granular drainage channel will be crossing over the existing gas line, at two locations. The Contractor must locate and protect this gas line and any other underground utilities/lines. Should the existing gas line not be deep enough for the trench to pass over the Contractor shall install a 200 mm diameter by 3.6 metre long PVC pipe in place of the granular trench. The Contractor must contact the Contract Administrator to verify site conditions prior to eliminating the granular trench in lieu of the new drainage pipe. See drawing detail 8-L3 for the alternate construction detail using a PVC pipe. No separate payment will be made for the PVC pipe, should that construction detail be required.
- E14.6 The drainage channel is specified to be 400 mm (16") wide; however, the Contractor may install a wider trench to suit the excavation equipment bucket. Use of wider trenching equipment requires the approval of the Contract Administrator. If the trench is widened it shall be widened towards the outside of the soccer field.
- E14.7 The preferred method of excavating the trench is after all the new topsoil has been placed on both sides of the trench, to a width necessary to support the excavation equipment. This will allow the geotextile fabric and stone to be retained by the topsoil on both sides of the trench to the trench's final height, allowing the finished trench elevation to be achieved.
- E14.8 The preferred method of installing the trench is to continuously backfill the trench with the geotextile and stone as it is excavated, so there are no long areas of trench excavations open

which would create a safety issue, when the Contractor is not on Site. When the Contractor is not on Site, all open excavations shall be clearly marked with a safety fence or colourful stakes/ribbons spaced 10 meters apart along the trench's length.

- E14.9 The trench shall be excavated to the invert elevations shown on drawing detail 1-L2. All trench elevation shall slope to the low point with is located by the new catch basin located at the south ends of the soccer field. The trench bottom shall be excavated with smooth bucket equipment (no teeth), and all loose soil debris is to be removed from the bottom of the trench, prior to installing the filter fabric.
- E14.10 The entire trench base, walls and top shall be lined with filter fabric which has been rolled out lengthwise with the trench, with any seams spaced a minimum 30 metres apart, or further. Seams located lengthwise along the trench shall be overlapped a minimum of 600 mm. Where the seam is located on the top of the trench it shall be overlapped a min. of 200 mm as shown in detail 1-L3. The top fabric should lay flat against the gravel and not be kinked or buckle into protruding higher ridges.
- E14.11 Where the new weeping tile pipes meet the catch basin they shall be installed to the new invert elevations shown on drawing 1-L2, and connected to the catch basin, by pushing the weeping tile through the 200 mm dia. new LDS pipe. Install a second 3 metre long weeping tile line in catch basin No: 2, to allow more water to flow into the catch basin. Where the weeping tile pipe enters the LDS pipe, install a layer of geotextile over and around the LDS pipe, after the weeping tile has been installed, to prevent the stone from migrating down the LDS pipe.
- E14.12 The top of the underground granular drainage channel filter fabric shall be covered with a layer of 6 mm crushed limestone down. The depth of limestone must not be under 20 mm thickness nor over 35 mm thickness. The preferred method/time to install the limestone is after the sod has been installed, to prevent dirt from contaminating the new gravel. The fabric must be cleaned of any dirt debris before installing the gravel, either by sweeping it clean or using a leaf blower. The finished layer of gravel shall be raked smooth and lightly compacted by passing a vibratory plate compacted over it.
- E14.13 Method of Measurement and Basis of Payment
- E14.13.1 Method of Measurement shall be as follows:
- (a) The underground granular drainage channel shall be measured on a per lineal metre basis and shall include the cost of the excavation and installation of the new filter fabric, weeping tile, granular back fill and granular cover, as noted in the Form B: Prices for respective Items No: 6, 7, 12 : " Supply and install underground granular drainage channel...." and on Form B: Prices.

## **E15. NEW CATCH BASIN AND LEAD**

- E15.1 This specification covers the supply and installation of the two (2) new catch basins, and associated 200 mm dia. LDS piping.
- E15.2 This specification shall amend and supplement City Specification CW 2030 and CW 2130 Gravity Sewer.
- E15.3 The design of the catch basin has been prepared by G.A. Pratt and Associates.
- E15.4 The new catch basins shall be installed with invert elevations for the various pipes as shown on drawing details 4, 5 sheet L-2.
- E15.5 Connections to the catch basins are to be grouted as per CW3120 3.5.4.
- E15.6 Method of Measurement and Basis of Payment
- E15.6.1 Method of Measurement shall be as follows:

- (a) The new catch basin installation will be measured on a lump sum basis and shall include the cost of the excavation and installation of the new catch basin, 200 mm dia. LDS leads, metal cover, and backfill, as noted in the Form B: Prices for respective Items No: 4,5: “ New catch basin and associated 200 mm dia. Leads” and on Form B: Prices.

**E16. MULTI-FLOW UNDERGROUND DRAINAGE CHANNEL**

E16.1 General Description

E16.2 This specification shall cover the supply and installation of an underground granular drainage system as located on drawing L4 and as per details 1, 2-L and details 1, 2 – L6.

E16.3 The Contractor is made aware that the Multi-Flow underground drainage piping may not be awarded based on budgetary constraints.

E16.3.1 Material

(a) Drainage Pipe

- (i) Drainage pipe shall be Multi-Flow, as manufactured by Varicore Technologies, or approved equal in accordance with B7.. Multi-Flow pipe shall be 300 mm (12”) or 450 mm (18”) wide strips as noted on the drawings. The Contractor shall use on the Manufacturer’s connection and end fittings..
- (ii) The drain conduit shall be of flexible, prefabricated, rounded rectangular shaped, composite product. The drain conduit will be wrapped with a non-woven geotextile and will be a non-woven needle-punched construction and consist of long-chain polymeric fibres composed of polypropylene, polyethylene or polyamide. The fibres will be oriented into a multi-directional stable network whereby they retain their positions relative with each other and allow the passage of water as specified. The fabric will be free of any chemical treatment or coating, which reduces permeability and will be inert to chemical commonly found in soil. The geotextile will conform to the following minimum average roll values.

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

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

(iv)

Thickness, inches	ASTM D-1777	1.0
Flow Rate, gpm/ft*	ASTM D-4716	29

Compressive Strength, psf	ASTM D-1621 (modified sand method)	6000
Pipe Stiffness, pii	ASTM D-2412	100

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

- (v) Fittings
- (vi) The fittings used with the Multi-Flow pipe shall be of a snap together design. In no case shall any drainage product be joined without the use of the manufacturers connector designed specifically for the purpose.
- (vii) Outflow pipe shall be 100 mm dia. solid, non perforated P.V.C.
- (b) Backfill for Trenches
  - (i) Backfill sand shall be coarse sand whose particle size is defined as less than 5% retained on a # 10 screen and less than 5% passing through a # 30 (US Std Sieve) In no case will more than 1% pass a # 60 screen.
- (c) Geotextile for trench lining
  - (i) Armtec 200 or approved substitute in accordance with B7.
- (d) Prefabricated Valve Box Enclosure
  - (i) Carson 300 mm x 425 mm x 300 depth with lockable cover or approved substitute in accordance with B7.
- (e) Backflow Preventer
  - (i) 100 mm dia. PVC sewage line preventer with flapping gate, rubber seal, and access lid.
- (f) Plywood
  - (i) 19 mm thickness pressure treated.

**E16.3.2 Methods**

- (a) The Multi-Flow drainage pipe will be installed in existing soccer fields and as such all Work must be made to minimize damaging any of the surrounding grass. It is the intent of the City of Winnipeg to utilize these soccer fields shortly after the construction Work is completed and as such the new topsoil and seed should only be installed to the minimum area needed to cover the top of the trenches.
- (b) The location of the trenches as shown on drawing L4 is schematic only. The actual locations will be field located by the Contract Administrator. The Contractor shall base their bid on the length of various size Multi-Flow pipe indicated in the Unit price form.
- (c) Fittings for the drain will be installed in accordance with the manufacturer's recommendations and Specification.
- (d) The trenches are to be installed using maximum 100 mm wide trenches and removing all loose debris left in the trench as well as all excavated soil laying on the grass.
- (e) The new Multi-flow pipe is to be installed to the bottom of the trench and held vertically in the centre of the trench using wood stakes supporting each side of the Multi-flow as the trench is backfilled with sand.
- (f) The sand shall be installed to 25 mm below existing finished grade, and topped with a 25 mm depth of topsoil and seed in accordance with CW 3520.
- (g) Where the Multi-Flow pipe terminates by the underground granular drain located on the east side of the soccer field, connect the Multi-Flow pipe with solid 100 mm dia. pvc pipe to the Underground Granular trench weeping tile, as per drawing L-6.
- (h) Install a backflow preventer in the along the pvc pipe to prevent the water in the underground granular trench from flowing back into the Multi-Flow pipe. Locate the

backflow preventer at least 3 metres from the end of the Multi-Flow pipe. The backflow shall be made accessible for future maintenance by installing in fibreglass valve box. Use 19 mm thick plywood below the fibreglass valve box to allow just below the backflow elevation to keep the backflow preventer exposed. Provide a 100 mm pea gravel sump under the backflow preventer. Screw the lid of the fibreglass cover down to prevent removal by the public. No separate payment will be made for the pvc solid pipe, connection to the Underground Granular Drain, valve boxes, and backflow preventer. Include the cost of these items in the 450 mm height Multi-flow unit price.

**E16.4 Method of Measurement and Basis of Payment**

**E16.4.1 Method of Measurement shall be as follows:**

- (a) Multi-Flow Underground Drainage Channel will be measured on a per lineal metre basis for the following items:
  - (i) Item 13: "Supply and install 300 mm height Multi-Flow drainage pipe and grass restoration" on Form B: Prices;
  - (ii) Item 14: "Supply and install 450 mm height Multi-Flow drainage pipe, and connection to underground granular drainage channel and grass restoration" on Form B: Prices;

**E16.4.2 Basis of Payment shall be as follows:**

Underground Multi-Flow Drainage Pipe will be paid for at the Contract Unit Prices based on the number of lineal metres installed. The amount to be paid for shall be the total number of lineal metres of each size of pipe, as indicated on Form B: Prices. This price shall be full payment for the trench excavation, Multi-Flow Pipe, sand backfill, valve box, backflow preventer, tie into the underground granular drain, and topsoil and seed topping.

**E17. SODDING**

E17.1 This specification shall amend C.W. 3510-R9.

E17.2 The Contractor is responsible to repair any damage to the existing sod, outside the Work Area, at no cost to the City.

E17.3 Further to CW 3510-R9, Item 9.6 Watering and Rolling, the Contractor is informed they will have to supply their own water from offsite sources at their own expenses.

E17.4 The soccer field shall have a 150 mm depth of screened topsoil installed below the sod and not 75 mm as identified in CW 3540-R4. This depth of topsoil is for the main soccer field area, as shown on drawing detail 1-L2 and will extend to the edge of the new underground granular drain. This depth of topsoil also extends to the north limit of the soccer field where it meets the existing grass, and to the south ridge line at the south end of the soccer field. All other areas not located within the play fields or areas noted above and as shown on drawing 1-L2 shall receive the standard 75 mm depth of topsoil below the new sod. Specified depth shall be measured after the topsoil has been rolled with a 50kg roller, minimum 900 mm wide.

**E17.5 Method of Measurement and Basis of Payment**

**E17.5.1 Method of Measurement shall be as follows:**

- (a) Sodding shall be measured on a unit price basis and shall include the cost of the new topsoil base, as noted in the Form B: Prices for:
  - (i) Item 8: "Supply and install 150 mm depth imported topsoil and sod for Soccer Field No: 1" on Form B: Prices.

- (ii) Item 9: "Supply and install 75 mm depth imported topsoil and sod for land areas around Soccer Field No: 1, including 2 drainage ditches to the existing culvert" on Form B: Prices.
- (iii) Item 11: "Supply and install 75 mm depth imported topsoil and sod for west granular drainage channel on Future Soccer Field No: 2" on Form B: Prices.