

THE CITY OF WINNIPEG

BID OPPORTUNITY

BID OPPORTUNITY NO. 293-2006

GOLF COURSE RENOVATIONS - 2006

TABLE OF CONTENTS

PART A - BID SUBMISSION

Form A: Bid Form B: Prices Form G1: Bid Bond and Agreement to Bond Form G2: Irrevocable Standby Letter of Credit and Undertaking	1 4 6 8
PART B - BIDDING PROCEDURES	
 B1. Project Title B2. Submission Deadline B3. Site Investigation B4. Enquiries B5. Addenda B6. Substitutes B7. Bid Submission B8. Bid B9. Prices B10. Qualification B11. Bid Security B12. Opening of Bids and Release of Information B13. Irrevocable Bid B14. Withdrawal of Bids B15. Evaluation of Bids B16. Award of Contract 	1 1 1 1 2 3 3 4 4 5 5 6 6 7 7
PART C - GENERAL CONDITIONS	
C1. General Conditions	1
PART D - SUPPLEMENTAL CONDITIONS	
General D1. General Conditions D2. Scope of Work D3. Contract Administrator D4. Contractor's Supervisor D5. Notices D6. Furnishing of Documents	1 1 1 2 2
Submissions D7. Safe Work Plan D8. Insurance D9. Performance Security	2 2 3
Schedule of Work D10. Commencement D11. Substantial Performance D12. Total Performance D13. Liquidated Damages	3 4 4 4
Control of Work D14. Job Meetings D15. Prime Contractor – The Workplace Safety and Health Act (Manitoba)	5 5
Form H1: Performance Bond Form H2: Irrevocable Standby Letter of Credit	6 8

Table of Contents

PART E - SPECIFICATIONS

General

E1.	Applicable Specifications, Standard Details and Drawings	1
E2.	Protection of Existing Trees	1
E3.	Earthwork and Grading	2
E4.	Irrigation	3
E5.	Drainage Systems	4
E6.	Granular Surfacing	6
E7.	Electrical	7

PART B - BIDDING PROCEDURES

B1. PROJECT TITLE

B1.1 GOLF COURSE RENOVATIONS - 2006

B2. SUBMISSION DEADLINE

- B2.1 The Submission Deadline is 12:00 noon Winnipeg time, August 17, 2006.
- B2.2 Bid Submissions determined by the Manager of Materials to have been received later than the Submission Deadline will not be accepted and will be returned upon request.
- B2.3 The Contract Administrator or the Manager of Materials may extend the Submission Deadline by issuing an addendum at any time prior to the time and date specified in B2.1.

B3. SITE INVESTIGATION

B3.1 Further to GC:3.1, the Bidder may view the Site without making an appointment but is asked to register at the Clubhouse prior to entering the course.

B4. ENQUIRIES

- B4.1 All enquiries shall be directed to the Contract Administrator identified in **Error! Reference source not found.**1.
- B4.2 If the Bidder finds errors, discrepancies or omissions in the Bid Opportunity, or is unsure of the meaning or intent of any provision therein, the Bidder shall notify the Contract Administrator of the error, discrepancy or omission, or request a clarification as to the meaning or intent of the provision at least five (5) Business Days prior to the Submission Deadline.
- B4.3 Responses to enquiries which, in the sole judgment of the Contract Administrator, require a correction to or a clarification of the Bid Opportunity will be provided by the Contract Administrator to all Bidders by issuing an addendum.
- B4.4 Responses to enquiries which, in the sole judgment of the Contract Administrator, do not require a correction to or a clarification of the Bid Opportunity will be provided by the Contract Administrator only to the Bidder who made the enquiry.
- B4.5 The Bidder shall not be entitled to rely on any response or interpretation received pursuant to B4 unless that response or interpretation is provided by the Contract Administrator in writing.

B5. ADDENDA

- B5.1 The Contract Administrator may, at any time prior to the Submission Deadline, issue addenda correcting errors, discrepancies or omissions in the Bid Opportunity, or clarifying the meaning or intent of any provision therein.
- B5.2 The Contract Administrator will issue each addendum at least two (2) Business Days prior to the Submission Deadline, or provide at least two (2) Business Days by extending the Submission Deadline.
- B5.2.1 Addenda will be available on the Bid Opportunities page at The City of Winnipeg, Corporate Finance, Materials Management Branch internet site at http://www.winnipeg.ca/matmgt.

- B5.2.2 The Bidder is responsible for ensuring that he has received all addenda and is advised to check the Materials Management Branch internet site for addenda shortly before submitting his Bid.
- B5.3 The Bidder shall acknowledge receipt of each addendum in Paragraph 10 of Form A: Bid. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.

B6. SUBSTITUTES

- B6.1 The Work is based on the Plant, Materials and methods specified in the Bid Opportunity.
- B6.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.
- B6.3 Requests for approval of a substitute will not be considered unless received in writing by the Contract Administrator at least five (5) Business Days prior to the Submission Deadline.
- B6.4 The Bidder shall ensure that any and all requests for approval of a substitute:
 - (a) provide sufficient information and details to enable the Contract Administrator to determine the acceptability of the Plant, Material or method as either an approved equal or alternative;
 - (b) identify any and all changes required in the applicable Work, and all changes to any other Work, which would become necessary to accommodate the substitute;
 - (c) identify any anticipated cost or time savings that may be associated with the substitute;
 - (d) certify that, in the case of a request for approval as an approved equal, the substitute will fully perform the functions called for by the general design, be of equal or superior substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed Work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance;
 - (e) certify that, in the case of a request for approval as an approved alternative, the substitute will adequately perform the functions called for by the general design, be similar in substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed Work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance.
- B6.5 The Contract Administrator, after assessing the request for approval of a substitute, may in his sole discretion grant approval for the use of a substitute as an "approved equal" or as an "approved alternative", or may refuse to grant approval of the substitute.
- B6.6 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, only to the Bidder who requested approval of the substitute.
- B6.6.1 The Bidder requesting and obtaining the approval of a substitute shall be entirely responsible for disseminating information regarding the approval to any person or persons he wishes to inform.
- B6.7 If the Contract Administrator approves a substitute as an "approved equal", any Bidder may use the approved equal in place of the specified item.
- B6.8 If the Contract Administrator approves a substitute as an "approved alternative", any Bidder bidding that approved alternative shall base his Total Bid Price upon the specified item but may also indicate an alternative price based upon the approved alternative. Such alternatives will be evaluated in accordance with B15.

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

B7. BID SUBMISSION

- B7.1 The Bid Submission consists of the following components:
 - (a) Form A: Bid;
 - (b) Form B: Prices;
 - (c) Form G1: Bid Bond and Agreement to Bond, or Form G2: Irrevocable Standby Letter of Credit and Undertaking, or a certified cheque or draft;
- B7.2 All components of the Bid Submission 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 in ink, to constitute a responsive Bid.
- B7.3 The Bid Submission shall be submitted enclosed and sealed in an envelope clearly marked with the Bid Opportunity number and the Bidder's name and address.
- B7.3.1 Samples or other components of the Bid Submission which cannot reasonably be enclosed in the envelope may be packaged separately, but shall be clearly marked with the Bid Opportunity number, the Bidder's name and address, and an indication that the contents are part of the Bidder's Bid Submission.
- B7.4 Bid Submissions submitted by facsimile transmission (fax) or internet electronic mail (e-mail) will not be accepted.
- B7.5 Bid Submissions shall be submitted to:

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

B8. BID

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

- B8.4 Paragraph 12 of Form A: Bid shall be signed in accordance with the following requirements:
 - (a) if the Bidder is a sole proprietor carrying on business in his own name, it shall be signed by the Bidder;
 - (b) if the Bidder is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;
 - (c) if the Bidder is a corporation, it shall be signed by its duly authorized officer or officers and the corporate seal, if the corporation has one, should be affixed;
 - (d) if the Bidder is carrying on business under a name other than his own, it shall be signed by the registered owner of the business name, or by the registered owner's authorized officials if the owner is a partnership or a corporation.
- B8.4.1 The name and official capacity of all individuals signing Form A: Bid shall be printed below such signatures.
- B8.4.2 All signatures shall be original and shall be witnessed except where a corporate seal has been affixed.
- B8.5 If a Bid is submitted jointly by two or more persons, the word "Bidder" shall mean each and all such persons, and the undertakings, covenants and obligations of such joint Bidders in the Bid Submission and the Contract, when awarded, shall be both joint and several.

B9. PRICES

- B9.1 The Bidder shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.
- B9.2 The quantities listed on Form B: Prices are to be considered approximate only. The City will use said quantities for the purpose of comparing Bids.
- B9.3 The quantities for which payment will be made to the Contractor are to be determined by the Work actually performed and completed by the Contractor, to be measured as specified in the applicable Specifications.

B10. QUALIFICATION

- B10.1 The Bidder shall:
 - (a) undertake to be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba;
 - (b) be responsible and not be suspended, debarred or in default of any obligation to the City;
 - (c) be financially capable of carrying out the terms of the Contract;
 - (d) have all the necessary experience, capital, organization, and equipment to perform the Work in strict accordance with the terms and provisions of the Contract;
 - (e) have successfully carried out Work, similar in nature, scope and value to the Work;
 - (f) employ only Subcontractors who:
 - (i) are responsible and not suspended, debarred or in default of any obligation to the City (a list of suspended or debarred individuals and companies is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Branch internet site at http://www.winnipeg.ca/matmgt); and
 - (ii) have successfully carried out Work similar in nature, scope and value to the portion of the Work proposed to be subcontracted to them, and are fully capable of

performing the Work required to be done in accordance with the terms of the Contract;

- (g) have a written Workplace safety and health program in accordance with The Workplace Safety and Health Act (Manitoba);
- B10.2 The Bidder shall be prepared to submit, within three (3) Business Days of a request by the Contract Administrator, proof satisfactory to the Contract Administrator of the qualifications of the Bidder and of any proposed Subcontractor.
- B10.3 The Bidder shall provide, on the request of the Contract Administrator, full access to any of the Bidder's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Bidder's equipment and facilities are adequate to perform the Work.

B11. BID SECURITY

- B11.1 The Bidder shall provide bid security in the form of:
 - (a) a bid bond, in the amount of at least ten percent (10%) of the Total Bid Price, and agreement to bond of a company registered to conduct the business of a surety in Manitoba, in the form included in the Bid Submission (Form G1: Bid Bond and Agreement to Bond); or
 - (b) an irrevocable standby letter of credit, in the amount of at least ten percent (10%) of the Total Bid Price, and undertaking 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 included in the Bid Submission (Form G2: Irrevocable Standby Letter of Credit and Undertaking); or
 - (c) a certified cheque or draft payable to "The City of Winnipeg", in the amount of at least fifty percent (50%) of the Total Bid Price, drawn on a bank or other financial institution registered to conduct business in Manitoba.
- B11.1.1 If the Bidder submits alternative bids, the bid security shall be in the amount of the specified percentage of the highest Total Bid Price submitted.
- B11.2 The bid security of the successful Bidder and the next two lowest evaluated responsive and responsible Bidders will be released by the City when a Contract for the Work has been duly executed by the successful Bidder and the performance security furnished as provided herein. The bid securities of all other Bidders will be released when a Contract is awarded.
- B11.2.1 Where the bid security provided by the successful Bidder is in the form of a certified cheque or draft pursuant to B11.1(c), it will be deposited and retained by the City as the performance security and no further submission is required.
- B11.2.2 The City will not pay any interest on certified cheques or drafts furnished as bid security or subsequently retained as performance security.
- B11.3 The bid securities of all Bidders will be released by the City as soon as practicable following notification by the Contract Administrator to the Bidders that no award of Contract will be made pursuant to the Bid Opportunity.

B12. OPENING OF BIDS AND RELEASE OF INFORMATION

- B12.1 Bid Submissions will be opened publicly, after the Submission Deadline has elapsed, in the office of the Corporate Finance Department, Materials Management Branch, or in such other office as may be designated by the Manager of Materials.
- B12.1.1 Bidders or their representatives may attend.

- B12.1.2 Bid Submissions determined by the Manager of Materials, or his designate, to not include the bid security specified in B11 will not be read out.
- B12.2 After the public opening, the names of the Bidders and their Total Bid Prices as read out (unevaluated, and pending review and verification of conformance with requirements) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Branch internet site at http://www.winnipeg.ca/matmgt.
- B12.3 After award of Contract, the name(s) of the successful Bidder(s) and the Contract Amount(s) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Branch internet site at http://www.winnipeg.ca/matmgt.
- B12.4 The Bidder is advised that any information contained in any Bid Submission may be released if required by City policy or procedures, by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law.

B13. IRREVOCABLE BID

- B13.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 11 of Form A: Bid.
- B13.2 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 until a Contract for the Work has been duly executed and the performance security furnished as herein provided, but any Bid shall be deemed to have lapsed unless accepted within the time period specified in Paragraph 11 of Form A: Bid.

B14. WITHDRAWAL OF BIDS

- B14.1 A Bidder may withdraw his Bid without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.
- B14.1.1 Notwithstanding GC:23.3, the time and date of receipt of any notice withdrawing a Bid shall be the time and date of receipt as determined by the Manager of Materials.
- B14.1.2 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 12 of Form A: Bid, and only such person, has authority to give notice of withdrawal.
- B14.1.3 If a Bidder gives notice of withdrawal prior to the Submission Deadline, the Manager of Materials shall:
 - (a) retain the Bid Submission until after the Submission Deadline has elapsed;
 - (b) open the Bid Submission to identify the contact person named in Paragraph 3 of Form A: Bid and the Bidder's authorized representatives named in Paragraph 12 of Form A: Bid; and
 - (c) if the notice has been given by any one of the persons specified in B14.1.3(b), declare the Bid withdrawn.
- B14.2 A Bidder who withdraws his Bid after the Submission Deadline but before his Bid has been released or has lapsed as provided for in B13.2 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, including the right to retain the Bidder's bid security.

B15. EVALUATION OF BIDS

- B15.1 Award of the Contract shall be based on the following bid evaluation criteria:
 - (a) compliance by the Bidder with the requirements of the Bid Opportunity (pass/fail);
 - (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B10 (pass/fail);
 - (c) Total Bid Price;
 - (d) economic analysis of any approved alternative pursuant to B6.
- B15.2 Further to B15.1(a), the Award Authority may reject a Bid as being non-responsive if the Bid Submission is incomplete, obscure or conditional, or contains additions, deletions, alterations or other irregularities. The Award Authority may reject all or any part of any Bid, or waive technical requirements if the interests of the City so require.
- B15.3 Further to B15.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in his Bid Submission or in other information required to be submitted, that he is responsible and qualified.
- B15.4 Further to B15.1(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 submitted Bid; 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 the sum of the quantities multiplied by the unit prices shown on Form B: Prices for the following items in the order listed until a Total Bid Price within the budgetary provision is achieved.
 - Item No. Description
 - 7. Earthwork and Grading
 - 8. Topsoil and Sod
 - 9. Grass Bunker
 - 10. Granular Cart Path
 - 11. Irrigation Salvage and Reinstallation
- B15.5 If there is any discrepancy between the Total Bid Price written in figures, the Total Bid Price written in words and the sum of the quantities multiplied by the unit prices for each item, the sum of the quantities multiplied by the unit prices for each item shall take precedence.

B16. AWARD OF CONTRACT

- B16.1 The City will give notice of the award of the Contract by way of a letter of intent, or will give notice that no award will be made.
- B16.2 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.
- B16.2.1 Without limiting the generality of B16.2, 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.
- B16.3 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.

PART C - GENERAL CONDITIONS

C1. GENERAL CONDITIONS

- C1.1 The *General Conditions for Construction Contracts* (Revision 2000 11 09) are applicable to the Work of the Contract.
- C1.1.1 The *General Conditions for Construction Contracts* are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Branch internet site at http://www.winnipeg.ca/matmgt.

PART D - SUPPLEMENTAL CONDITIONS

GENERAL

D1. GENERAL CONDITIONS

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

D2. SCOPE OF WORK

- D2.1 The Work to be done under the Contract shall consist of the re-grading of fairways, installation of localized drainage system, irrigation salvage and reinstallation, cart paths, finish grading and sodding.
- D2.2 The major components of the Work are as follows:
 - (a) Earthwork and Grading
 - (b) Irrigation
 - (c) Topsoil and Sod
 - (d) Granular Cart Paths
 - (e) Drainage Systems

D3. CONTRACT ADMINISTRATOR

D3.1 The Contract Administrator is Scatliff+Miller+Murray, represented by:

Derek Murray, MALA CSLA Principal 8th Floor, 44 Princess Street Winnipeg, Manitoba, R3B 1K2

Telephone No. (204) 927-3441 Facsimile No. (204) 927-3443

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

D4. CONTRACTOR'S SUPERVISOR

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

D5. NOTICES

- D5.1 Except as provided for in GC:23.2.2, all notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the Contractor shall be sent to the address or facsimile number identified by the Contractor in Paragraph 2 of Form A: Bid.
- D5.2 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the City, except as expressly otherwise required in D5.3, D5.4 or elsewhere in the Contract, shall be sent to the attention of the Contract Administrator at the address or facsimile number identified in **Error! Reference source not found.**.1.
- D5.3 All notices of appeal to the Chief Administrative Officer shall be sent to the attention of the Chief Financial Officer at the following address or facsimile number:

The City of Winnipeg Chief Administrative Officer Secretariat Administration Building, 3rd Floor 510 Main Street Winnipeg MB R3B 1B9

Facsimile No.: (204) 949-1174

D5.4 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications required to be submitted or returned to the City Solicitor shall be sent to the following address or facsimile number:

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

Facsimile No.: (204) 947-9155

D6. FURNISHING OF DOCUMENTS

D6.1 Upon award of the Contract, the Contractor will be provided with five (5) complete sets of the Bid Opportunity. If the Contractor requires additional sets of the Bid Opportunity, they will be supplied to him at cost.

SUBMISSIONS

D7. SAFE WORK PLAN

- D7.1 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 GC:4.1 for the return of the executed Contract.
- D7.2 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 Branch internet site at http://www.winnipeg.ca/matmgt.

D8. INSURANCE

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

- (a) commercial general liability insurance, in the amount of at least two million dollars (\$2,000,000.00) all inclusive, with The City of Winnipeg being added as an additional insured, with a cross-liability clause, such liability policy to also contain a contractual liability, an unlicensed motor vehicle liability and a products and completed operations endorsement to remain in place at all times during the performance of the Work and throughout the warranty period;
- (b) automobile liability insurance for owned and non-owned automobiles used for or in connection with the Work in the amount of at least two million dollars (\$2,000,000.00) at all times during the performance of the Work and until the date of Total Performance;
- D8.2 Deductibles shall be borne by the Contractor.
- D8.3 The Contractor shall provide the City Solicitor with a certificate of insurance of each policy, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in GC:4.1 for the return of the executed Contract.
- D8.4 The Contractor shall not cancel, materially alter, or cause each policy to lapse without providing at least fifteen (15) Calendar Days prior written notice to the Contract Administrator.

D9. PERFORMANCE SECURITY

- D9.1 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.
- D9.1.1 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.
- D9.2 If the bid security provided in his Bid Submission was not a certified cheque or draft pursuant to B11.1(c), 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 letter of intent and prior to the commencement of any Work on the Site but in no event later than the date specified in GC:4.1 for the return of the executed Contract.

SCHEDULE OF WORK

D10. COMMENCEMENT

- D10.1 The Contractor shall not commence any Work until he is in receipt of a letter of intent from the Award Authority authorizing the commencement of the Work.
- D10.2 The Contractor shall not commence any Work on the Site until:
 - (a) the Contract Administrator has confirmed receipt and approval of:

- evidence that the Contractor is in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba;
- (ii) evidence of the workers compensation coverage specified in GC:6.14;
- (iii) the Safe Work Plan specified in D7;
- (iv) evidence of the insurance specified in D8;
- (v) the performance security specified in D9;
- D10.3 The Contractor shall not commence the Work on the Site before September 5, 2006.
- D10.4 The City intends to award this contract by August 28, 2006.

D11. SUBSTANTIAL PERFORMANCE

- D11.1 The Contractor shall achieve Substantial Performance by October 16, 2006.
- D11.2 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.
- D11.3 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.

D12. TOTAL PERFORMANCE

- D12.1 The Contractor shall achieve Total Performance by November 15, 2006.
- D12.2 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.
- D12.3 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.

D13. LIQUIDATED DAMAGES

- D13.1 If the Contractor fails to achieve Substantial Performance in accordance with the Contract by the day fixed herein for Substantial Performance, the Contractor shall pay the City One Thousand dollars (\$1000.00) per Calender Day for each and every Calender Day following the day fixed herein for Substantial Performance during which such failure continues.
- D13.2 The amount specified for liquidated damages in D13.1 is based on a genuine pre-estimate of the City's losses in the event that the Contractor does not achieve Substantial Performance by the day fixed herein for same.
- D13.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

CONTROL OF WORK

D14. JOB MEETINGS

- D14.1 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.
- D14.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he deems it necessary.

D15. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)

D15.1 Further to GC:6.26, the Contractor shall be the Prime Contractor and shall serve as, and have the duties of the Prime Contractor in accordance with The Workplace Safety and Health Act (Manitoba).

FORM H1: PERFORMANCE BOND

(See D9)

KNOW ALL MEN BY THESE PRESENTS THAT

(hereinafter called the "Principal"), and

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

dollars (\$

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

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

_____ day of ______ , 20_____ , for:

BID OPPORTUNITY NO. 293-2006

GOLF COURSE RENOVATIONS - 2006

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

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

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

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

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

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

_____ day of _____ , 20____ .

SIGNED AND SEALED in the presence of:

(Witness)

(Name of Principal)	
Per:	(Seal)
Per:	
(Name of Surety)	
By: (Attorney-in-Fact)	(Seal)

FORM H2: IRREVOCABLE STANDBY LETTER OF CREDIT (PERFORMANCE SECURITY) (See D9)

(Date)

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

RE: PERFORMANCE SECURITY - BID OPPORTUNITY NO. 293-2006

GOLF COURSE RENOVATIONS - 2006

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

(Name of Contractor)

(Address of Contractor)

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

Canadian dollars.

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

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

Partial drawings are permitted.

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

(Address)

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

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

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

(Date)

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

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

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

(Name of bank or financial institution)

Per:

(Authorized Signing Officer)

Per:

(Authorized Signing Officer)

PART E - SPECIFICATIONS

GENERAL

E1. APPLICABLE SPECIFICATIONS, STANDARD DETAILS AND DRAWINGS

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

Drawing No. Drawing Name/Title

K4G1	Kildonan 4 th , 5 th and 9 th Drainage Works
K12G	Kildonan 12 th Green Renovation Plan
K13G	Kildonan 13 th Green Renovation Plan
W11G1	Windsor 11 th Green / Fairway Existing Conditions Plan
W11G2	Windsor 11 th Green / Fairway Renovation Plan
W17G1	Windsor 17 th Green / Fairway Existing Conditions Plan
W17G2	Windsor 17 th Green / Fairway Renovation Plan

E2. PROTECTION OF EXISTING TREES

- E2.1 GENERAL
- E2.1.1 Description
 - (a) This specification covers the protection of all existing trees. 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 for and incidental to the satisfactory performance and completion of all Work hereinafter specified.
- E2.2 EXECUTION
- E2.2.1 Preservation
 - (a) Existing trees shall be protected and preserved as is.
- E2.2.2 Trunk Protection
 - (a) All trees will have a 1.0m (minimum) radius protective zone calculated from the circumference at the base of the trunk which will remain free of digging, trenching, grade changes, stock piling of materials and soil compaction throughout the duration of the contract. Protective fencing around these areas is required. All trees within and

immediately adjacent to, proposed construction areas will require 1x6x8' wood planks strapped to the tree trunk to completely protect the tree trunk from impact damage. (smaller trees will be similarly protected using proportionally sized wood planks).

- E2.2.3 Overhead Branch and Limb Protection
 - (a) Tree limbs and branches overhanging the construction area shall not be damaged. The responsibility to ensure that the above ground portions of trees are not damaged is that of the agent involved in the actual Work.

E2.2.4 Excavation

(a) During all excavation a representative from the City of Winnipeg Forestry Branch shall be present at all times unless otherwise agreed upon by the Contract Administrator, Forestry Branch and Contractor prior to commencement of construction.

E2.2.5 Notification

- (a) The Contract Administrator is to be notified 48 hours in advance of any large equipment to be working in the vicinity of existing trees. The Contractor shall provide adequate personnel on foot to supervise equipment operators in the vicinity of the trees to ensure that no damage occurs.
- (b) Special care is required during excavation to ensure existing tree root structure is not damaged. Should root pruning be required the Contractor must ensure proper root pruning techniques are employed by a licensed Arbourist.

E2.3 METHOD OF MEASUREMENT

(a) No measurement will be made for protection of existing trees.

E2.4 BASIS FOR PAYMENT

(a) No separate payment will be made for protection of existing trees.

E3. EARTHWORK AND GRADING

E3.1 GENERAL

- E3.1.1 Description
 - (a) This specification shall cover all Work associated with general Earthwork and Grading as described by Drawings. The Contractor shall furnish all superintendence, overhead, labour, materials, equipment, tools, supplies and all things necessary for and incidental to the satisfactory performance and completion of all Work hereinafter specified. This specification shall supplement CW3170-R3.

E3.2 MATERIALS

- E3.2.1 General
 - (a) Materials provided shall be in accordance with CW3170-R3 and as shown on the drawings.
- E3.3 EXECUTION

E3.3.1 General

(a) The Contractor shall grade to the levels and contours allowing for surface treatment as shown on Drawings. Existing topsoil shall be stockpiled on-site as directed by the Contract Administrator. Prior to placing any fill over existing ground the Contractor shall scarify to surface to a depth of 150mm. Moisture content of filling and existing surface material shall be the same in order to facilitate proper bonding.

- (b) Surplus fill shall be stockpiled on-site as directed by the Contract Administrator.
- (c) All fill shall be clean fill.

E3.3.2 Compaction

- (a) Compact fill and undisturbed areas to Standard Proctor Density to ASTM D698-78 as follows:
 - (i) Landscaped Areas 85%
 - (ii) Paved Areas 95%
- E3.3.3 Approvals
 - (a) The Contractor shall stake grades and receive approval from the Contract Administrator prior to any construction.
 - (b) The Contract Administrator shall approve grading prior to installation of topsoil and/or surfacing materials.
- E3.4 METHOD OF MEASUREMENT
- E3.4.1 Earthwork and Grading will be measured on a square meter basis. The amount to be paid for shall be the total number of square metres constructed in accordance with this Specification and as accepted by the Contract Administrator.
- E3.5 BASIS OF PAYMENT
- E3.5.1 Payment for Earthwork and Grading shall be paid for at the contract unit price for the "Items of Work" listed below, which price shall include all costs of labour and material supply, including fill, and all other items incidental to the Work included in this specification.

Items of Work:

- (i) Earthwork and Grading
- (ii) Grass Bunker

E4. IRRIGATION

- E4.1 GENERAL / DESCRIPTION
 - (a) This specification shall supplement CW3530-R3 Manual Irrigation System. The Work shall include the removal, salvage and re-installation of the exiting irrigation system affected by site re-grading. The supply and installation of new pipe, as required is also included in this specification.
 - (b) 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 things necessary for and incidental to the satisfactory performance and completion of all Work as hereinafter specified.

E4.2 MATERIAL

- E4.2.1 Pipe, Fittings, and Backfill
 - (a) Material shall be supplied in accordance with CW3530-R3.
 - (b) Existing irrigation head assemblies, valves, boxes, and couplers shall be salvaged for re-installation.

E4.3 EXECUTION

E4.3.1 General

- (a) Work shall be performed as per CW3530-R3 and as shown on the drawings.
- (b) All workmanship and all materials furnished and supplied under this Specification are subject to close and systematic inspection 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 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 the Specification and accepted standards of good practice..

E4.4 METHOD OF MEASUREMENT

(a) Irrigation Work will be measured on a lump sum basis, and shall include all Items of Work completed in accordance with this Specification and accepted by the Contract Administrator.

E4.5 BASIS FOR PAYMENT

(a) Irrigation Work will be paid for at the Contract Lump Sum for each "Items of Work", listed below, 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.

Items of Work:

(i) Irrigation Salvage and Re-installation

E5. DRAINAGE SYSTEMS

- E5.1 GENERAL
 - (a) This specification cover the supply and installation of inline drains, drainage pipe, MultiFlow drainage systems, connectors, pump and catchbasin as specified herein and as shown on the drawings.
 - (b) 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 things necessary for and incidental to the satisfactory performance and completion of all Work as hereinafter specified.

E5.2 MATERIAL

- E5.2.1 Inline Drains, Pipe, and Fittings
 - (a) Inline drains shall be ADS "Nyloplast" 12" Inline Drains as supplied by Wolseley Engineered Pipe Group, (204) 975-0738, or approved equal. Inline drains shall be supplied complete with iron grates and manufacturer's fittings, or approved equal.
 - (b) Drainage pipe shall be 4" DIA. flexible corrugated poly pipe.
 - (c) Drainage pipe shall be 3" DIA. flexible corrugated poly pipe.
 - (d) Drainage system pipe shall be 6" "Multi-Flow drainage system pipe as supplied by Nilex, Inc. (204) 925-4466, or approved equal.
 - (e) MultiFlow caps and connectors shall be as shown on the drawings as supplied by Nilex, Inc. (204) 925-4466, or approved equal.

E5.2.2 Catchbasin

(a) Catchbasin shall be 1220x2000 supplied in accordance with CW2131-R3, and shall include ring, frame and cover.

E5.2.3 Backfill

(a) Backfill shall be supplied as per manufacturer's specifications.

E5.3 EXECUTION

- E5.3.1 General
 - (a) The Contractor shall install inlets and pipe to the elevations, and at the locations shown on the drawings. Location of the inlets and pipe shall be approved by the Contract Administrator prior to construction.
 - (b) Inlets shall be installed as per the manufacturer's specifications.
 - (c) All workmanship and all materials furnished and supplied under this Specification are subject to close and systematic inspection 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 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 the Specification and accepted standards of good practice.
 - (d) The Contractor shall exercise extreme care in the handling and installation of materials. Damaged inlets, fittings and pipe shall be replaced.
 - (e) The Contractor shall restore all sod areas damaged by the installation of the system in accordance with CW3510 and as directed by the Contract Administrator.

E5.4 METHOD OF MEASUREMENT

(a) Drainage systems will be measured on a per unit basis, and shall include all Items of Work completed in accordance with this Specification and accepted by the Contract Administrator.

E5.5 BASIS FOR PAYMENT

(a) Drainage will be paid for at the contract unit price for each "Items of Work", listed below, which price shall include all costs of labour and material supply, including backfill, restoration, and all other items incidental to the Work included in this specification.

Items of Work:

- (i) Drain Inlets
- (ii) Drain Pipe 4" DIA Plastic
- (iii) Drain Pipe 3" DIA Plastic
- (iv) MultiFlow 6" Pipe
- (v) MultiFlow Caps and Connectors
- (vi) Catchbasin

E6. GRANULAR SURFACING

E6.1 GENERAL / DESCRIPTION

- (a) This Specification shall cover crushed limestone surfacing for new granular cart paths.
- (b) 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 things necessary for and incidental to the satisfactory performance and completion of all Work as hereinafter specified.

E6.2 MATERIALS

- E6.2.1 Limestone Dust Topping
 - (a) Limestone dust topping shall be supplied in accordance with the requirements of Specification CW 3150-R3, and shall meet the following gradation:

Sieve	Percent Passing
9.5 mm	100
4.75 mm	50 – 100
1.18 mm	20 – 55
0.30 mm	10 – 30
0.075 mm	0 – 12

E6.2.2 Granular Base

(a) Granular Base shall be supplied in accordance with the requirements of Specification CW 3110-R5 for 50 mm down crushed limestone.

E6.3 EXECUTION

- E6.3.1 Subgrade Preparation
 - (a) The subgrade preparation shall conform to the levels required for the installation of granular base, and in accordance with CW 3110-R5. Minor grading will be required to accommodate the pathway. All grades for path subgrade are to be approved by Contract Administrator prior to the installation of the base course.

E6.3.2 Granular Base

(a) Granular base shall be installed in accordance with Specification CW 3110-R5 and to the minimum thickness 200mm in two 100mm lifts. Each layer shall be compacted to 100% Standard Procter Density. The granular base shall be shaped and rolled alternately to obtain a smooth, even and uniformly compacted base. Base shall be graded to reflect finished grade elevations. Water shall be applied as necessary to obtain compaction. If the granular base is excessively moist, it shall be aerated by scarifying with suitable equipment until the moisture content is corrected. Approved mechanical tampers shall be used to compact the granular base in areas not accessible to rolling equipment. The top of the granular base shall be within 10 mm of the required finished base course grade.

E6.3.3 Limestone Topping

(a) Limestone dust shall be installed to a compacted thickness of 75mm. The limestone dust topping shall be compacted to 100% of the Standard Proctor Density. Keep topping material moist throughout compaction procedures.

E6.3.4 Quality Control

(a) All workmanship and all materials furnished and supplied under this Specification are subject to close and systematic inspection 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 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 the Specification.

E6.4 METHOD OF MEASUREMENT

(a) Granular Surfacing shall be measured on a square metre basis. The amount to be paid for shall be the total number of square metres installed as measured by the Contract Administrator.

E6.5 BASIS OF PAYMENT

(a) Granular Surfacing shall be paid for at the contract unit price for the "Items of Work" listed below, which price shall include all costs of labour and material supply, and all other items incidental to the Work included in this specification.

Items of Work:

i) Granular Cart Path

E7. ELECTRICAL

- E7.1 GENERAL / DESCRIPTION
- E7.1.1 Work Included
 - (a) This Specification shall cover the installation of a submersible pump, float switch and associated electrical Work, including trenching, conduit, wiring and connections to the Pump House adjacent Kildonan's 4th green. The Work to be done by the Contractor under this Specification shall include the furnishing of all superintendence, overhead, labour, materials, equipment, tools, supplies, connections, permits, and all other things necessary and/or incidental to the provision of a complete functioning automated pump system.
- E7.1.2 Related Work
 - (a) E6 Drainage Systems
- E7.1.3 Permits and Approvals
 - (a) The Contractor shall be responsible for all necessary permits, inspections and associated costs. All wiring to be inspected and approved by the City of Winnipeg Electrical Inspections Branch. The Contractor shall provide inspection report to Contract Administrator.

E7.1.4 Quality Control

- (a) Material and Labour shall be supplied as required to meet the requirements of these codes, rules and regulations even though the Work is not shown on the drawings or mentioned in the specifications.
- (b) Where this specification calls for better quality materials or construction than the minimum requirements of these codes, rules and regulations, the electrical installation shall be shown on the drawings and as specified.
- (c) Electrical installation shall be in accordance with the requirements of the electrical supply authority.

E7.1.5 Timing

(a) Work shall be done so as not to interfere with the function of the course's irrigation program. Contractor to verify timing of Work with Contract Administrator and WGS staff.

E7.2 MATERIALS

- E7.2.1 General
 - (a) The Contractor shall be responsible for the supply of all material, save lighting fixtures, set forth in this Specification. The Contractor shall be responsible for the safe storage, and handling of all materials as set forth in this Specification. All materials supplied under this Specification shall be subject to inspection and acceptance by the Contract Administrator.

E7.2.2 Pump and Float Switch

(a) Pump and float switch shall be Ful-Flo Industries (204) 633-4414 1HP submersible pump with a flow rate of 150GPM, or approved equal.

E7.2.3 Grounding Equipment

(a) Grounding conductors system, circuit and equipment, grounding to be bare standard copper sized in accordance with the Canadian Electrical Code.

E7.2.4 Cable Trench

(a) Cables shall be protected by a sand bedding of minimum 150mm. Backfill containing large rock or sharp angular substances or corrosive materials shall not be used. A cable marker 300mm above the cable shall be provided.

E7.3 EXECUTION

E7.3.1 General

- (a) The Work under this Specification shall be completed to the current Canadian Electrical Code, City of Winnipeg By-Laws and regulations.
- (b) Fixtures to be ground mounted as per manufacturers instructions.
- (c) Contractor to ensure monument sign lighting is installed in the full cut-off position and that there will be no glare or other detrimental light effects on adjacent roadways.

E7.4 METHOD OF MEASUREMENT

(a) Electrical Work shall be paid for on a lump sum basis. The amount to be paid shall be for the completion of all Work performed in accordance with this specification, the drawings and as accepted by the Contract Administrator.

E7.5 BASIS OF PAYMENT

(a) Electrical Work shall be paid for at the lump sum bid price, which price shall include all costs of labour and material supply, including, trenching, conduit, wiring, permits, and all other items incidental to the Work included in this specification.

Items of Work:

i) Electrical (Pump, Trenching, Connections and Backfill)