

THE CITY OF WINNIPEG

BID OPPORTUNITY

BID OPPORTUNITY NO. 605-2017

VALOUR COMMUNITY CLUB ORIOLES – FRONT ENTRANCE SITE IMPROVEMENTS

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 VALOUR COMMUNITY CLUB ORIOLES – FRONT ENTRANCE SITE IMPROVEMENTS

B2. SUBMISSION DEADLINE

- B2.1 The Submission Deadline is 4:00 p.m. Winnipeg time, August 1, 2017.
- 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 D2.2(g).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.
- 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) Myron Vogt, Barkman Concrete, for Mini Taco precast element.
- (b) Leonard Blais, TailGaters Custom Metal Manufacturing & Mobile Welding, for metal panels.

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

- 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 The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law or by City policy or procedures (which may include access by members of City Council).

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.
- 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
- 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 redevelopment of the public open space in front of the Valour Community Club Orioles, 444 Burnell Street.
- D2.2 The major components of the Work are as follows:
 - (a) Removal of garden boxes and asphalt;
 - (b) Retrofitting of existing chain link fencing and supply and installation of new fencing;
 - (c) Supply and installation of metal panels on the fencing;
 - (d) Supply and installation of concrete sidewalk including concrete bicycle play elements;
 - (e) Supply and installation of lights c/w banners;
 - (f) Supply and installation of site furnishings; and,
 - (g) Supply and installation of soft landscaping including trees, topsoil, sod, and planting beds.

D3. CONTRACT ADMINISTRATOR

D3.1 The Contract Administrator is David Wagner Associates Inc., represented by:

David Wagner Landscape Architect

Telephone No. 204 452-2426 Email Address dwagner@dwla.ca

- D3.2 At the pre-construction meeting, David Wagner will identify additional personnel representing the Contract Administrator and their respective roles and responsibilities for the Work.
- D3.3 Bids Submissions must be submitted to the address in B8.

D4. CONTRACTOR'S SUPERVISOR

D4.1 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 email address identified in D2.2(g).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

D6.1 Bids Submissions must not be submitted to the above facsimile numbers. Bids must be submitted in accordance with B8.

SUBMISSIONS

D7. AUTHORITY TO CARRY ON BUSINESS

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

D8. SAFE WORK PLAN

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

D9. INSURANCE

- D9.1 The Contractor shall provide and maintain the following insurance coverage:
 - (a) commercial general liability insurance, in the amount of at least two million dollars (\$2,000,000.00) inclusive, with The City of Winnipeg and David Wagner Associates 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.

D12. DETAILED WORK SCHEDULE

- D12.1 The Contractor shall provide the Contract Administrator with a detailed work schedule at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.
- D12.2 The detailed work schedule shall consist of the following:
 - (a) a critical path method (C.P.M.) schedule for the Work;
 - (b) a Gantt chart for the Work based on the C.P.M. schedule;
 - all acceptable to the Contract Administrator.
- D12.3 Further to D12.2(a), the C.P.M. schedule shall clearly identify the start and completion dates of all of the following activities/tasks making up the Work as well as showing those activities/tasks on the critical path:
 - (a) Commencement date, Substantial Performance and Total Performance.
 - (b) The ordering and delivery dates of materials such as the Mini Taco, lights, metal panels and any other items which may have critical timelines.
 - (c) Layout and formwork of concrete.
 - (d) Pouring of concrete.
- D12.4 Further to D12.2(b), the Gantt chart shall show the time on a weekly basis, required to carry out the Work of each trade, or specification division. The time shall be on the horizontal axis, and the type of trade shall be on the vertical axis.

SCHEDULE OF WORK

D13. COMMENCEMENT

- D13.1 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.
- D13.2 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 inD8;
 - (iv) evidence of the insurance specified in D9;
 - (v) the performance security specified in D10;
 - (vi) the Subcontractor list specified in D11; and
 - (vii) the detailed work schedule specified in D12.
 - (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.
- D13.3 The Contractor shall commence the Work on the Site within seven (7) Working Days of receipt of the Purchase Order.
- D13.4 The City intends to award this Contract by August 31, 2017
- D13.4.1 If the actual date of award is later than the intended date, the dates specified for Critical Stages, Substantial Performance, and Total Performance will be adjusted by the difference between the aforementioned intended and actual dates.

D14. SUBSTANTIAL PERFORMANCE

- D14.1 The Contractor shall achieve Substantial Performance by October 24, 2017.
- D14.2 When the Contractor considers the Work to be substantially performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Substantial Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be reinspected.
- D14.3 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.

D15. TOTAL PERFORMANCE

- D15.1 The Contractor shall achieve Total Performance by October 31, 2017.
- D15.2 When the Contractor or the Contract Administrator considers the Work to be totally performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Total Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be reinspected.
- D15.3 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.

D16. LIQUIDATED DAMAGES

- D16.1 If the Contractor fails to achieve Total Performance in accordance with the Contract by the day fixed herein for Total Performance, the Contractor shall pay the City five hundred dollars (\$500) per Working Day for each and every Working Day following the day fixed herein for Total Performance during which such failure continues.
- D16.2 The amount specified for liquidated damages in D16.1 is based on a genuine pre-estimate of the City's damages in the event that the Contractor does not achieve Total Performance by the day fixed herein for same.
- D16.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.
- D16.4 The amounts specified for liquidated damages in D16.1 are based on a genuine pre-estimate of the City's losses in the event that the Contractor does not achieve critical stages, Substantial Performance or Total Performance by the days fixed herein for same.
- D16.5 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

D17. SCHEDULED MAINTENANCE

- D17.1 The Contractor shall perform the following scheduled maintenance in the manner and within the time periods required by the Specifications:
 - (a) Sod maintenance as specified in E21.4,
 - (b) Tree maintenance as specified in E22.4.
- D17.2 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

D18. JOB MEETINGS

- D18.1 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.
- D18.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he/she deems it necessary.

D19. DRAWINGS AND SPECIFICATIONS

- D19.1 The Contractor shall maintain one full size set of Drawings and Specifications on Site at all times during construction. This shall include the shop drawings, complete construction details, change orders and any other information pertinent to the construction of the project. The drawings shall be printed in colour if colour is used to convey information.
- D19.2 The Contractor shall maintain a set of Record Drawings on Site marking all Changes in Work.

 The information shall be transferred to an autocad drawing and submitted to the Contract

 Administrator at Total Performance. There shall be no separate payment for Record Drawings.

D20. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)

D20.1 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).

D21. THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA) – QUALIFICATIONS

D21.1 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.

MEASUREMENT AND PAYMENT

D22. PAYMENT

D22.1 Further to C12, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

WARRANTY

D23. WARRANTY

D23.1 Notwithstanding C13.2, the warranty period shall begin on the date of Total Performance and shall expire one (1) year thereafter, except where longer warranty periods are specified in the respective Specification sections, unless extended pursuant to C13.2.1 or C13.2.2, in which case it shall expire when provided for thereunder.

- D23.1.1 For the purpose of Performance Security, the warranty period shall be one (1) year.
- D23.2 Notwithstanding C13.2, the Contract Administrator may permit the warranty period for a portion or portions of the Work to begin prior to the date of Total Performance if a portion of the Work cannot be completed because of unseasonable weather or other conditions reasonably beyond the control of the Contractor but that portion does not prevent the balance of the Work from being put to its intended use.
- D23.2.1 In such case, the date specified by the Contract Administrator for the warranty period to begin shall be substituted for the date specified in C13.2 for the warranty period to begin.

FORM H1: PERFORMANCE BOND (See D10)

KNOW ALL MEN BY THESE PRESENTS THAT			
(hereir	nafter called the "F	Principal"), and	
(herein the "O	nafter called the "S bligee"), in the su	Surety"), are held and firmly bound unto THE CITY OF WINNIPEG (hereium of	, nafter called
		dollars (\$)
sum th	ne Principal and t	ada to be paid to the Obligee, or its successors or assigns, for the paym the Surety bind themselves, their heirs, executors, administrators, succerally, firmly by these presents.	
WHEF	REAS the Principa	al has entered into a written contract with the Obligee for	
BID O	PPORTUNITY NO	O. 605-2017	
VALO	UR COMMUNITY	CLUB ORIOLES – FRONT ENTRANCE SITE IMPROVEMENTS	
which	is by reference m	nade part hereof and is hereinafter referred to as the "Contract".	
NOW	THEREFORE the	e condition of the above obligation is such that if the Principal shall:	
(a) (b) (c) (d) (e)	forth in the Content perform the Wo make all the payin every other Contract; and indemnify and sidemands of evolutions, actions Compensation aperformance or	perform the Contract and every part thereof in the manner and within the atract and in accordance with the terms and conditions specified in the Cork in a good, proper, workmanlike manner; syments whether to the Obligee or to others as therein provided; respect comply with the conditions and perform the covenants contains save harmless the Obligee against and from all loss, costs, damages, very description as set forth in the Contract, and from all penalties, as so for loss, damages or compensation whether arising under "The Act", or any other Act or otherwise arising out of or in any way connect non-performance of the Contract or any part thereof during the term of the typeriod provided for therein;	ontract; ained in the claims, and ssessments, ne Workers sted with the
		ON SHALL BE VOID, but otherwise shall remain in full force and effect. iable for a greater sum than the sum specified above.	The Surety
of any	kind or matter wh	ECLARED AND AGREED that the Surety shall be liable as Principal, and natsoever that will not discharge the Principal shall operate as a discharg any law or usage relating to the liability of Sureties to the contrary notwi	e or release
IN WI	TNESS WHEREO	OF the Principal and Surety have signed and sealed this bond the	
	day of	20	

_ (Seal)
_
_ (Seal)

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

(See D10)

(Date)	_
The City of Winnipeg Legal Services Departme 185 King Street, 3rd Floo Winnipeg MB R3B 1J1	
RE: PERFORMANC	E SECURITY - BID OPPORTUNITY NO. 605-2017
VALOUR COMM	IUNITY CLUB ORIOLES – FRONT ENTRANCE SITE IMPROVEMENTS
Pursuant to the request of	of and for the account of our customer,
(Name of Contractor)	,
(Address of Contractor)	
WE HEREBY ESTABLIS in the aggregate	SH in your favour our irrevocable Standby Letter of Credit for a sum not exceeding
	Canadian dollars.
for payment made upon for the payment of monie inquiring whether you ha	edit may be drawn on by you at any time and from time to time upon written demand us by you. It is understood that we are obligated under this Standby Letter of Credit is only and we hereby agree that we shall honour your demand for payment without we a right as between yourself and our customer to make such demand and without our customer or objection by the customer to payment by us.
	By Letter of Credit may be reduced from time to time only by amounts drawn upon ice in writing given to us by you if you desire such reduction or are willing that it be
Partial drawings are perr	nitted.
	all demands for payment made within the terms and currency of this Standby Letter oured if presented to us at:
(Address)	
and we confirm and here	by undertake to ensure that all demands for payment will be duly honoured by us.

All domands for	navment shall s	pocifically state	that thay are	drawn under th	ic Standby	Latter of Credit
All demands for	paymem snan s	pecifically state	i iliai iliey ale	urawii ulluel li	iis Stariuby	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	e of bank or financial institution)
Per:	
	(Authorized Signing Officer)
Per:	
	(Authorized Signing Officer)

FORM J: SUBCONTRACTOR LIST

(See D11)

VALOUR COMMUNITY CLUB ORIOLES – FRONT ENTRANCE SITE IMPROVEMENTS

Name	Address

PART E - SPECIFICATIONS

GENERAL

	١.	APPLICABLE S	PECIFICATIONS	AND DRAWING
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- 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:

Drawing Name/Title
Existing Conditions and Site Survey
Removals
Development Plan
Layout Plan
Grading Plan
Lighting and Fence Panel Details
Details
Standard City Details

E2. HAZARDOUS MATERIALS

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

E3. PERMITS, NOTICES, LICENSES, CERTIFICATES, LAWS AND RULES

- E3.1 Further to C: 6.12, the Contractor shall give all necessary notices, obtain all necessary permits and pay all fees in order that the Work may be carried out. The Contractor shall submit all plans required by any inspection authority and obtain approval of same before proceeding with the Work, and pay any cost attached to the inspection of such plans.
- E3.2 The Contractor shall comply with all laws, ordinances, rules and regulations that would relate to the Work.
- E3.3 All notices, consents, approvals, statements, authorizations, documents or other communications to the City shall be submitted to the Contract Administrator.
- E3.4 All Work shall be performed in compliance with Manitoba Workplace Safety and Health.
- E3.5 All Work shall be performed in compliance with Manitoba Workplace Safety and Health Fall Protection guidelines.
- E3.6 The Contractor and Sub-contractors must be fully aware of all Work involving hazardous materials. All Work must be performed in compliance with the Manitoba Department of Labour Workplace Safety and Health 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.

E4. PROTECTION OF SURVEY INFRASTRUCTURE

- E4.1 Further to CW1130, Section 3.14, the Contractor is responsible for having the Site cleared for survey monuments.
 - (i) Geomatics Branch is to be contacted at least 5 Working Days in advance of construction, at 204-918-1360, to schedule an appointment to provide the monument protection services required.

E5. DAMAGE TO EXISTING STRUCTURES AND PROPERTY

E5.1 Further to C: 17, 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, other existing facilities and equipment at the Sites of the Work. For all damage incurred thereto in the performance of the Work, the Contractor shall upon instructions from and to the satisfaction of the Contract Administrator and the owners thereof, either replace and repair such damage, whichever may be deemed necessary in the opinion of, and acceptable to, the Contract Administrator and the owners thereof. The cost of which shall be borne entirely by the Contractor. The Contractor shall also indemnify and save harmless the City and David Wagner Associates Inc. from all claims made directly or indirectly against it in respect to any such damage.

E6. EXISTING SERVICES AND UTILITIES

E6.1 No responsibility will be assumed by the Owner for correctness or completeness of the Drawings, when provided, with respect to the existing utilities, pipes or other objects either underground or on the surface; the Owner 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.

E7. TEMPORARY UTILITIES

- E7.1 Further to C: 6.12, the Contractor shall make his own arrangements in connection with the temporary use of lighting, power, gas, sewer, water or other utilities, and pay all costs in connection therewith.
- E7.2 All necessary permits, fees and other like expenses as well as the cost of temporary connections to existing facilities shall be arranged and paid for by the Contractor.

E8. SITE ACCESS

- E8.1 Contractors are to work only within the fenced Site as shown on the Drawings or as directed by the Contract Administrator.
- E8.2 Access to the Site will be determined at the pre-construction meeting. The access area(s) shall be maintained and restored by the Contractor at his own expense and approved by the Contract Administrator.
- E8.3 The Contractor shall be restricted to the Site access locations and routes only so that there is a minimum of disturbance to the existing ground surface. Damage to areas beyond the marked routes shall be repaired by and at the expense of the Contractor to the satisfaction of the Contract Administrator.

E9. SITE ENCLOSURES

- E9.1 Temporary Site enclosures, as determined at the pre-construction meeting, shall be erected and maintained as required for the duration of the construction period.
- E9.2 Site enclosures shall be considered incidental to the Work.

E10. PROTECTION OF EXISTING TREES

E10.1 The Contractor shall not permit any vehicles, machinery or other work on the boulevard where there are existing trees.

E11. STAKES AND MARKS

- E11.1 The Contractor is responsible for the identification and staking of the property lines and the establishment of the layout of all Work. Key grade stakes shall be identified at the preconstruction meeting.
- E11.2 The Contract Administrator shall be advised of the staking of the layout and site grades at least twenty-four (24) hours in advance in order that the layout and site grades may be inspected and adjusted as required prior to construction.
- E11.3 The Contractor is responsible for the establishment and maintenance of the fixed bench mark, layout and grade stakes throughout the construction process.
- E11.4 The Contractor shall determine the meaning and correctness of the stakes and marks before starting the Work. If an error is suspected in the Drawings, Specifications or directions of the Contract Administrator, Work will be discontinued until the error is rectified. No claim will be made due to alleged inaccuracies in the stakes and marks and for delay in the Work to rectify an error.

E12. SAMPLES

- E12.1 Samples called for in the Specification or requested by the Contract Administrator shall be submitted within fifteen (15) Calendar Days of request.
 - (a) Identify samples with name of project, date, name of Contractor, name of supplier/manufacturer and use of material represented by sample.
 - (b) Do not proceed with delivery of materials until samples are reviewed by the Contract Administrator. No deviation is permitted after approval of sample.
 - (c) Approval of samples does not imply acceptance of finished Work.
 - (d) Where required, submit a range of samples, as may be reasonable.

E13. TEST REPORTS

- E13.1 Where required by the Contract Administrator, the Contractor shall provide certified copies of tests upon materials to be used in construction of the Work, indicating that the materials comply with the Specifications.
- E13.2 Submit test results to the Contract Administrator within ten (10) Calendar Days of request.
- E13.3 All testing costs shall be the responsibility of the Contractor.

E14. SITE RESTORATION

E14.1 Total Performance of the Work shall not be attained until the Contractor has cleaned up the Site and has removed all tools, equipment, waste, debris and surplus foundation earth to the satisfaction of the Contract Administrator. Unless otherwise specified, the Contractor shall restore all areas of the Site beyond the established limit of Work, which have been disturbed by

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

SITE WORK

E15. SITE PREPARATION

E15.1 General Description

- (a) Site Preparation shall include but not be limited to:
 - (i) The removal of garden boxes, benches, pots, plywood panels and any other extraneous materials:
 - (ii) The removal of asphalt and associated base materials;
 - (iii) The removal of tennis court piles, and basketball standards and piles;
 - (iv) The removal of chain link fencing mesh, gates and fence posts as shown on the Drawings;
 - The preparation of sub-grade for the installation of new base materials for pavements and other structures; and,
 - (vi) Rough site grading.
- (b) The hockey lights along the front of the Site are to be removed by others;
- (c) It shall also cover any other demolition and removals necessary to construct the project, which may be considered incidental to other items of Work.

E15.2 Removals

- (a) Garden boxes, benches, pots, plywood panels and any other extraneous materials are to be removed from the Site under the direction of the Contract Administrator.
- (b) The basketball standards and tennis court plates are to be removed.
 - (i) The piles are to be removed to a minimum of 600mm below the level of the new base materials that will be installed above it.
- (c) Removal of Asphalt and Associated Base Materials
 - (i) As per CW 3110.
 - (ii) The areas for asphalt removal shall be marked on Site and reviewed by the Contract Administrator prior to construction.
 - (iii) Asphalt shall be sawcut to separate asphalt to remain from asphalt to be removed.
 - (iv) Asphalt is to be removed from areas designated on the Drawings, taking care to preserve adjacent paving surfaces that are to remain.
 - (v) Base materials are to be removed as well as rubble, stones, silt, rubbish and any surplus material as required to prepare the subgrade to receive new surfaces as shown on the Drawings.
- (d) Removal of Chain Link Fence Mesh and Posts
 - (i) Further to E23, fence posts, top rails, caps and any other fence materials are to be reviewed with the Contract Administrator, sorted and either recycled / reused on site or removed.
- (e) All materials, to be demolished and removed, are to be removed from the Site and disposed of in a safe and legal manner. Excavated materials shall be recycled or legally disposed of off-site.
- (f) Any holes left by the removal of posts or foundations shall be filled with compacted clean clay fill to meet the adjacent grades and be restored to match surrounding conditions to the satisfaction of the Contract Administrator.

E15.3 Rough Grading as per E16.

E15.4 Site Restoration

(a) Any site restoration required due to removals, and not shown on the Drawings as areas for new development, shall be considered incidental to the removal Work.

E15.5 Basis of Payment

- (a) Payment for Work specified under this section shall be for complete site preparation. It shall be paid for at the Unit Price, measured on a lump sum basis, which price shall include all costs of removals and proper disposal, rough grading, and any associated Site restoration.
- (b) Items of Work:
 - (i) Site Preparation

E16. SITE GRADING

E16.1 General Description

- (a) Further to CW 3170, this specification shall cover the Site grading, including:
 - (i) The cut and fill required to achieve the proposed Site grades.

E16.2 Methods

- (a) The construction area is to be excavated or filled to achieve rough grade.
 - (i) Rough grade is to be to levels, profiles and contours allowing for surface treatment as indicated on Drawings.
- (b) Wherever the proposed Site grading is to meet existing Site grades, the grades are to match and positive Site drainage is to be maintained.
- (c) In fill areas, the Contractor shall scarify the existing ground to a minimum depth of 150mm prior to the placement of any fill. Should imported clean fill be required, it shall be considered incidental to the Work.
- (d) Compaction shall include the use of sheep's foot or other suitable compaction equipment as approved by the Contractor to achieve a minimum compaction of 95% Proctor Density.
- (e) All surplus or unsuitable materials shall be disposed of off Site in a legal manner and as directed by the Contractor.
- (f) Following rough grading and compaction, the Work area shall be fine graded to provide a maximum deviation of 25mm in 10m from the design grade with no low areas to hold water. The finished surface of all disturbed areas shall be dragged smooth in such a manner that there are no loose soil particles greater than 25mm in maximum dimensions.

E16.3 Basis of Payment

(a) Payment for Work, specified under this section, shall be incidental to the Site Preparation Work and no separate payment will be made for Site grading.

E17. SUB-SURFACE DRAINAGE SYSTEM

E17.1 General Description

- (a) Further to CW 3120, this specification shall cover the sub-surface drainage system:
 - The supply and installation of a catch pit and associated drainage pipe.
 - (ii) The supply and installation of drainage pipe and granular drainage layer for tree planting pits
 - (iii) The connection of the drainage pipe to an existing catch basin.

E17.2 Materials

- (a) Catch Pit
 - (i) SCD-613

- (b) Drain Pipe
 - (i) 250mm Ø pipe: to CW 2130
 - (ii) Big 'O' 75mm high density polyethylene corrugated tubing, perforated c/w sock, or approved substitute in accordance with B7.
 - (iii) Fittings as specified by the manufacturer.
- (c) Geotextile
 - (i) CW 3130
 - (ii) Non-woven
- (d) Granular
 - (i) Backfill for trenches: to CW 2030
 - (ii) Drainage layer for "the Pimple" planter to be clean pea stone.

E17.3 Methods - Existing Catch Basin

- (a) The existing catch basin shall be inspected prior to having any work done on it and any damage found shall be reported to the Contract Administrator.
- (b) Prior to completion of the project the Contractor shall clean out the catch basin of all debris.
- (c) The Contractor shall be responsible for restoration of any damages caused during the Work under this section.
- (d) Connections to the existing catch basin shall be below the ground surface and grouted into place as per CW 2130 and SD-025.

E17.4 Methods -Catch Pit

- (a) The layout of the sub-drain systems is to be marked on Site and reviewed by the Contract Administrator prior to construction of this item.
- (b) Drainage systems are to be installed as shown on the Drawings and as per CW 2130 and CW 3120.
- (c) The outlet pipe is to be connected to the existing catch basin as per CW 2130 and SD-025.
- (d) Trenches are to be excavated with a trenching machine or by hand. Trenches are to be inspected by the Contract Administrator prior to backfilling. Locations, where the trench crosses existing utilities, irrigation pipes and all other sub-surface pipes or fixtures, are to be excavated by hand. The amount of trench excavated at any time shall not exceed the amount of drain that can be set and backfilled completely prior to the end of that Working Day. Trench width and depth shall be as specified on the Drawings.
- (e) The bottom surface of the trench is to be free of loose particles and is to have the slope shown on the Drawings. Over excavation in the bottom of the trench shall be backfilled to the proper grade with the excavated material or granular prior to the placement of the drain. Where material is used to fill the trench to the proper elevation that material shall be compacted to 95% of standard proctor density using appropriate means. All excavated material shall be removed from the Site daily and disposed of legally.
- (f) The grades of the bottom of the trenches are to be reviewed by the Contract Administrator prior to installation of pipe.
- (g) Big 'O' non-perforated drain pipe is to be installed as shown on the Drawings.
- (h) Trench is to be backfilled according to CW 2030.

E17.5 Methods – Tree Planting Pits

- (a) The drainage layer in the pit is to be as shown on the Drawings.
- (b) It shall include the granular drainage layer, non-woven geotextile above the drainage layer, and the drainage pipes to be connected to the catch pit.

E17.6 Basis of Payment

- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a lump sum basis, for the Items of Work listed below, which price shall include all costs of material supply, proper material installation, work on existing catch basins and any associated Site restoration.
- (b) Items of Work:
 - (i) Subsurface Drainage

E18. POURED-IN PLACE CONCRETE CURBS

E18.1 General Description

(a) Further to CW 3310, this specification shall cover the supply and installation of poured-inplace concrete planter curb.

E18.2 Materials

- (a) Concrete shall be 30MPa and as per CW3310.
- (b) Granular base shall be compacted 19mm down crushed limestone.
- (c) Reinforcing steel shall be 15M with 15M ties at 600mm O.C.

E18.3 Methods

- (a) Layout is to be established on Site after excavation and grading operations, and reviewed by the Contract Administrator prior to formwork being completed.
- (b) Granular base, formwork and reinforcing are to be reviewed on Site by the Contract Administrator prior to pouring of concrete.
- (c) The vertical rebar ties are to be set into the granular base.
- (d) Concrete is to be trowel finished. All exposed edges are to be rounded as shown on the Drawings.

E18.4 Basis of Payment

- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a linear metre basis for the Items of Work listed below, which price shall include all costs of material supply, excavation, sub-grade preparation, proper material installation and any associated Site restoration.
- (b) Items of Work
 - (i) Concrete Planter Curb

E19. CONCRETE PAVING

E19.1 General Description

- (a) Further to CW 3110, CW 3310 and CW 3325, this specification shall cover:
 - The supply and installation of standard City sidewalk concrete paving as shown on the Drawings.
 - (ii) The supply and installation of concrete rolling sidewalk as shown on the Drawings.

E19.2 Materials and Methods for Standard City Sidewalk Concrete Paving

- (a) 100mm sidewalk paving to CW 3325.
- (b) Paving is to have a broom finish perpendicular to route of travel.
- (c) Layout, grades and details for concrete sidewalks are to be as shown on the Drawings.
- (d) Granular base and formwork are to be reviewed on Site by the Contract Administrator prior to pouring of concrete.
- (e) Saw cut locations to be reviewed by the Contract Administrator prior to implementation.

E19.3 Materials and Methods for Rolling Sidewalk Concrete Paving

- (a) 130mm sidewalk paving to CW 3325 c/w reinforcing mat.
- (b) 150mm compacted granular base as shown on the Drawings.
- (c) Shaping templates are to be used to form consistent radii on the rolling curves.
- (d) Paving is to have a broom finish perpendicular to route of travel.
- (e) Layout, grades and details for concrete sidewalks are to be as shown on the Drawings.
- (f) Granular base and formwork are to be reviewed on Site by the Contract Administrator prior to pouring of concrete.
- (g) Saw cut locations to be reviewed by the Contract Administrator prior to implementation.

E19.4 Basis of Payment

- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a square metre basis, for the Items of Work listed below, which price shall include all costs of base preparation, proper material installation, and any associated Site restoration.
- (b) Items of Work
 - (i) Concrete Sidewalk Paving
 - (ii) Rolling Sidewalk

E20. CONCRETE BIKE PLAY ELEMENTS

E20.1 General Description

- (a) Further to CW 3310, this specification shall cover:
 - (i) The supply and installation of the concrete bike play elements.
 - (ii) The supply and installation of the Barkman precast "Mini Taco" including all concrete foundation work.

E20.2 Reference Standards

- (a) All concrete Work shall be to The City of Winnipeg Standard Construction Specifications and the following:
 - CAN3-CSA A23.1 "Concrete Materials and Methods of Concrete Construction", latest edition.
 - (ii) CAN3-CSA A23.2 "Method of Test for Concrete", latest edition.
- (b) Where discrepancies may occur between Drawings, Specifications and Standards, the highest quality specification shall apply.

E20.3 Materials – Concrete Elements

- (a) Materials are to comply with CSA A23.
- (b) Cement: Type 10 Normal Portland cement.
- (c) Aggregates: CW 3310
- (d) Additives: CW 3310.
- (e) Reinforcement: as per Drawings
 - (i) All reinforcing steel to be CSA G30.18M 300 MPA deformed bars. All reinforcing is to be detailed in accordance with the latest edition of the ACI Detailing Manual, except otherwise noted.
 - (ii) All reinforcing to be held in place, and tied by the use of proper accessories, such as hi-chairs, spacers, etc. to be supplies by the reinforcing steel fabricator.

E20.4 Materials – "Mini Taco"

(a) The "Mini Taco" shall be as supplied by Barkman from their line of precast skatepark elements, or approved substitute in accordance with B7.

- (b) Shop drawings shall be required for the concrete foundation and installation of the precast element.
- (c) A poured-in-place concrete element may be considered for the precast element providing complete shop drawings are supplied for review by the Contract Administrator in accordance with B7.

E20.5 Formwork

- (a) Any forms, if required, shall be so constructed that the finished concrete will conform to the shapes, lines grades and dimensions shown on the Drawings.
- (b) Form plywood shall be used for exposed concrete surfaces.
- (c) Forms are to be designed to permit removal without damage to finish.
- (d) Formwork is to be cleaned and conditioned before each use. Damaged forms are not permitted.
- (e) Lumber used in forms shall be free from warp. For any exposed surfaces, it shall be dressed to a uniform width and thickness and be free from loose knots, decay or other defects. For unexposed surfaces and rough work, undressed lumber may be used if means are taken to prevent leakage.
- (f) The inside of forms shall be coated with non-staining mineral oil or other approved liquid or thoroughly wetted (except in freezing weather). Where oil is used, it shall be applied before the reinforcement is placed.
- (g) Forms shall not be disturbed until the concrete has adequately hardened
- (h) All exposed edges of concrete shall have a 25mm radius.

E20.6 Workmanship

- (a) The bike play elements shall be constructed in accordance with the Drawings provided and the shop drawings. Finishing shall produce a first class, broom finish surface, free from irregularities or imperfections greater than 3mm from specified surface finishes.
- (b) Curved and flat surfaces are to be screeded using accurately cut screed boards and templates in accordance with Drawing sections.

E20.7 Joints

- (a) Saw cuts shall be completed when concrete has sufficiently hardened that cutting can be performed without damaging slabs.
- (b) Expansion joints shall be installed along vertical elements.

E20.8 Finishing Surfaces

- (a) Concrete finish shall be a light broom finish surface with no irregularities as approved by the Contract Administrator.
- (b) All edges shall be rounded with a 25mm radius rounding tool unless shown differently on Drawings.

E20.9 Basis of Payment

- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a per unit basis, for the Items of Work listed below, which price shall include all costs of base preparation, supply of materials, proper material installation, and any associated Site restoration.
- (b) Items of Work
 - (i) Bike Play Element Mini Taco
 - (ii) Bike Play Element Peak
 - (iii) Bike Play Element Step

E21. TOPSOIL AND SODDING

E21.1 General Description

- (a) This specification shall cover the supply and installation of topsoil and sod.
 - (i) Associated Site rough grading shall be as per E16.

E21.2 Materials

- (a) Topsoil: As per CW 3540.
- (b) Sodding
 - (i) As per CW 3510.
 - (ii) Sod shall be mineral base.

E21.3 Methods

- (a) Areas to be sodded shall be fine graded to meet the grades required for the installation of topsoil and sod and as shown on the Drawings. Surplus materials shall be removed off-site in a legal manner.
- (b) No area for Sodding shall be less than the width of a full piece of sod.
- (c) Where Sodding meets existing turf, the edges are to be cut neatly in straight lines using a sod cutter and new sod is to be installed to match the existing grades of the surrounding turf.
- (d) Seams between new and old turf are to be topdressed, seeded and rolled.
- (e) Only those areas shown on the Drawings as New Sodding shall be paid for under this section. All other Site restoration shall be considered incidental to other Works.

E21.4 Maintenance Period

(a) The Contractor shall maintain the sod for 30 Calendar Days after Substantial Performance or until such a time as the turf is established in accordance with CW 3510.

E21.5 Basis of Payment

- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a square metre basis, for the Items of Work listed below, which price shall include all costs of material supply, sub-grade preparation, proper material installation, maintenance and all other items incidental to the Work.
- (b) Items of Work
 - (i) Topsoil and Sodding

E22. TREE PLANTING

E22.1 General Description

(a) This specification shall cover the preparation of planting beds and the supply and installation of trees.

E22.2 Materials

- (a) Topsoil: As per CW 3540.
- (b) Plant Material
 - Trees: 2 Ulmus americana Brandon / Brandon Elm, Min. size 65mm Caliper, 4.5M Ht., well formed head, B&B or #25 container.
 - (ii) Plant material is to be Canadian Prairie nursery grown and meet the specifications set out in the latest Guide Specifications for Nursery Stock prepared by the Canadian Nursery Trades association for size, grading, quality and method of cultivation.

- (iii) Plant material is to be true to name, structurally sound, well branched, healthy and vigorous; free from disease, insect infestation, and rodent damage; and, densely foliated with a well developed root system.
- (c) Mulch
 - (i) Local wood chip mulch with no items less than 5cm in size in any dimension.

E22.3 Methods

- (a) Trees shall be planted according to detail on Drawings.
- (b) The planting pit shall be excavated and scarified to meet the grades required for the installation of topsoil and as shown on the Drawings. Surplus materials shall be removed off-site in a legal manner.
- (c) Topsoil shall be placed and compacted as shown on the Drawings.
- (d) Plants shall have their containers removed and be planted to their original growing depth. Plant material shall be planted immediately upon arrival on the site and shall be protected to prevent drying out.
- (e) The watering saucer shall be formed and the plants watered well prior to the placement of the mulch.

E22.4 Maintenance Period

- (a) The Contractor shall maintain the trees and planting beds for thirty (30) days after the completion of the installation.
- (b) Maintenance shall include:
 - (i) Watering: Water shall be applied as required to maintain optimum growing conditions. During dry weather the Contractor shall expect to water on a weekly basis.
 - (ii) Weeding: The Contractor shall maintain the planting bed in a weed free condition throughout the maintenance period.
 - (iii) Clean-up: The Contractor shall ensure that the adjacent paved areas are cleaned after every watering and weeding procedure, and that the mulch remains neatly in the bed.

E22.5 Warranty

- (a) Trees shall be warrantied for a period of two (2) years. The warranty period shall begin on the date of Total Performance
- (b) Any trees that do not exhibit strong healthy growth at the end of the warranty period shall be replaced at no cost to the Owner.

E22.6 Basis of Payment

- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a per tree basis, for the Items of Work listed below, which price shall include all costs of material supply, proper material installation, maintenance and all other items incidental to the Work.
- (b) Items of Work
 - (i) Trees, inc. Maintenance

E23. CHAIN LINK FENCING

E23.1 General Description

- (a) Further to CW 3550, this specification shall cover the retrofitting of existing chain link fencing, including:
 - (i) the cutting down/shortening of existing fence posts and installing new post caps.
 - (ii) the supply and installation of new corner or end posts.

- (iii) the supply and installation of new posts as required for the installation of entrance features as specified in E26.
- (iv) the supply and installation of new 1.2m high chain link mesh.
- (v) the installation of recycled fence posts and top rails and the supply and installation of wood curb attached to the posts.
- (b) The removal of existing chain link mesh, posts and plywood panels is specified under E15.

E23.2 Materials

- (a) Chain link fencing as specified in CW 3550 and on Drawings.
- (b) Retrofitted chain link fencing and new gate are to be 1.2m in height.
- (c) The tops of the posts, cut down from the existing fence, are to be used for the recycled fence posts with the wood curb.
 - (i) Wood curb is to be pressure treated lumber as shown on the Drawings.
 - (ii) Galvanized U-Brackets and fasteners as shown on the Drawings.

E23.3 Methods

- (a) As per CW 3550 and the Drawings.
- (b) Existing fence posts are to be kept and retrofitted wherever possible.
- (c) Removed and cut down posts may be reused where possible, in consultation with the Contract Administrator.
- (d) New corner or end posts are to be supplied and installed as required and shown on the Drawings.
- (e) New chain link mesh, caps, top rails and any other materials needed to meet CW 3550 are to be supplied and installed.
- (f) A new 1.2m high gate is to be supplied and installed near the building.
- (g) Recycled Fence Posts c/w Wood Curb are to be installed as shown on the Drawings.

E23.4 Basis of Payment

- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a lump sum basis, for the Items of Work listed below, which price shall include all costs of material supply, proper material installation and all other items incidental to the Work.
- (b) Items of Work
 - (i) Chain Link Fencing
 - (ii) Recycled Fence Posts c/w Wood Curb

E24. SITE FURNITURE

E24.1 General Description

(a) This specification shall cover the supply and installation of site furniture as shown on the Drawings.

E24.2 Materials

- (a) Benches
 - (i) Tache Composite Bench with Arms, Surface Mount, Drawing No. SCD-121E, Product #52501071, 1.8 M length (6'), manufactured by the City of Winnipeg, galvanized finish for metal and cedar tone for the boards.
 - (ii) Benches are to have three arm rests.
- (b) Picnic Tables
 - (i) Tache Style Wheelchair Metal Frame Picnic Table, Drawing No. SCD-122A, manufactured by the City of Winnipeg.

- (ii) Colour: Galvanized for metals, Cedar for boards.
- (iii) The picnic table is to include one duck-bill anchor and chain for installation.
- (c) Waste Receptacles
 - (i) Side Opening Metal Stat Type, as per SCD-119, Product #52501063GLV and #52501058, galvanized, manufactured by the City of Winnipeg.
- (d) The contact for City of Winnipeg site furniture is:
 - (i) pwd-cps-orderdesk@winnipeg.ca
- (e) Bike Rack
 - (i) Dero Bike Racks, Hi Roller, Hi3H, parks 5 bikes, Foot Mount, Galvanized Finish.
 - (ii) Contact: McLean Sales and Consulting, Jodi McLean, mcleansales@shaw.ca

E24.3 Methods

- (a) All site furnishings are to be installed according to Drawings and manufacturer's specifications, using approved non-rusting, vandal resistant fasteners to ensure solid, durable, finished work suitable for the purpose intended. Fasteners and assembly hardware shall be incidental to the Work.
- (b) All furnishings are to be installed plumb and true to correct elevations. Surface mount benches are to be shimmed to be level. The Contractor shall confirm proposed locations with the Contract Administrator prior to installation.
- (c) Site furnishings are to be kept clean of any granular, concrete or other materials. Any damaged surfaces shall be touched-up to the satisfaction of the Contract Administrator.

E24.4 Basis of Payment

- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a per unit basis, for the Items of Work listed below, which price shall include all costs of supply and proper material installation. Site restoration work shall be considered incidental to the Work.
- (b) Items of Work:
 - (i) Benches, supply and install
 - (ii) Picnic Table, supply and install
 - (iii) Bike Rack, supply and install
 - (iv) Waste Receptacle, supply and install

ELECTRICAL

E25. LIGHTS AND ELECTRICAL

- E25.1 This specification shall cover the supply and installation of pedestrian lighting, including;
 - (a) Banners
 - (b) Luminaires
 - (c) The design, supply and installation of pole bases to fit the existing concrete piles and bolts.
 - (d) The complete electrical power hook-up of the new lights and connections to the existing electrical service.

E25.2 Scope

(a) The Contractor shall visit the Site and examine all related Drawings and local conditions affecting the Work and ascertain that all Work shown can be satisfactorily carried out without additional changes to the Contract. Any discrepancies are to be reported to the Contract Administrator immediately.

- (b) The Contractor shall provide design and shop drawings for all electrical Work complete with necessary stamps by a qualified electrical engineer licensed to practice in the Province of Manitoba.
- (c) The Contractor shall provide design and shop drawings for the pole bases complete with necessary stamps by a qualified engineer licensed to practice in the Province of Manitoba.
- (d) The Contractor shall provide all materials, labour, plant and equipment required for a complete and working installation as specified herein and on the Drawings
- (e) The electrical installation shall be in accordance with the current edition of the Canadian Electrical Code, Provincial and Municipal codes and regulations.
- (f) The Contractor shall obtain all permits, certificates of approval and pay all related fees required for this installation.
- (g) The Contractor shall arrange for and co-ordinate all inspections with the City of Winnipeg and the Contract Administrator.

E25.3 Materials

- (a) All equipment supplied under this Contract shall be new and be CSA approved.
- (b) All equipment, wiring, etc. shall be sized and specified on the Shop Drawings.
- (c) Contractor is to provide all required electrical devices, components, conduits, fittings, wiring, disconnects and miscellaneous equipment to make all connections.
- (d) Lights
 - (i) As specified on the Drawings.
- (e) Banners
 - (i) Banner arms and connectors shall be custom made to match the specified poles. Shop drawings shall be required.
 - (ii) Banners are to be two sided.
 - (iii) As specified on the Drawings

E25.4 Methods

- (a) Scheduling of the Work shall be arranged with the Contract Administrator to minimize disruptions to the City operations during normal working hours. Any shutdown or interruptions to the system shall be at times acceptable to the City of Winnipeg.
- (b) All Work shall be completed in a first class manner. Work is to be coordinated with other trades working on Site.
- (c) Service to the new lights shall be powered from the existing light bases.
- (d) Luminaires, including lamps, poles and base covers, are to be installed as per manufacturer's specifications.
- (e) The lights shall be in accordance with the current edition of the Canadian Electrical Code, Provincial and Municipal codes and regulations.
- (f) Lighting shall adhere to the Manitoba Hydro Power Smart Program.

E25.5 Commissioning

- (a) The electrical installation shall be completely tested demonstrating that the equipment and systems installed perform in the manner intended.
- (b) The Contractor shall submit a Certificate of Inspection from the local Inspection Authority upon completion of the Work.

E25.6 Basis of Payment

(a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a per unit basis, for the Items of Work listed below, which price shall include all costs of

design, permits, material supply, proper material installation and any Work necessary to provide a complete working lighting and electrical service.

- (b) Items of Work
 - (i) Lights, inc. Banners

METAL WORK

E26. ENTRANCE FEATURES

E26.1 General Description

- (a) This specification shall cover the supply and installation of miscellaneous metal Work for the entrance features:
 - (i) Square galvanized posts, c/w flanges, to fit over new or recycled round fence posts;
 - (ii) Galvanized steel 'fence' panels; and,
 - (iii) CorTen steel 'silhouette' panels.

E26.2 Workmanship

- (a) Metal Work shall be finished straight, even and smooth and free of any defects to sizes specified and required.
- (b) Work shall include all necessary angles, brackets, metal inserts, rivets, bolts, frames, adjusting screws, washers and other items necessary for the complete installation of the Work.
- (c) Welding is to be neat, symmetrical, clean and unobtrusive in appearance.

E26.3 Reference Standards

- (a) Canadian Institute of Steel Construction (CISC)
- (b) American Society for Testing and Materials (ASTM)
- (c) Canadian Standards Association (CSA)

E26.4 Submittals

(a) Samples of any component, requested by the Contract Administrator, shall be submitted prior to fabrication.

E26.5 Shop Drawings

- (a) Shop Drawings shall be submitted for the metal panel entrance features including, but not limited to:
 - (i) Frameworks
 - (ii) Silhouettes
 - (iii) Fastening systems
- (b) All dimensions are to be verified prior to fabrication.

E26.6 Materials

- (a) Unless detailed or specified otherwise, standard products will be acceptable if construction details and installation meet the intent of the Drawings and Specifications in the opinion of the Contract Administrator.
- (b) Round fence posts are to be covered by the square fence posts and may be recycled from on site.
- (c) Materials for the entrance features to be as shown on Drawings.
 - (i) Work is to be free from defects which impair the strength or durability.
 - (ii) All edges are to be blunt and free of defects which may be dangerous to people grabbing them.

- (d) Fasteners: Unless otherwise specified, provide fasteners as follows:
 - (i) Steel bolts and lag screws to conform to ASTM A325.
 - (ii) Fasteners are to be galvanized for locations where galvanized materials are attached. Untreated steel fasteners and washers are to be used to fasten CorTen panels onto galvanized panels.

E26.7 Fabrication

- (a) Site measurements are to be taken before fabrication to ensure accurate fitting.
- (b) Weld joints tight, flush, and grind smooth, in true planes with base materials. Make welds continuous.

E26.8 Installation

- (a) As per Drawings.
- (b) Round fence posts are to be direct buried leaving their exposed height as required to hold the square posts to their correct height.
- (c) Square posts are to be set at the correct height so that the panels are level across their length.
 - (i) Square posts for the Garden Entrance are to sit on the concrete paving and the length is to accommodate the slope of the paving.
 - (ii) Square posts for the Front and Corner Entrances are set in turf and are to be buried.
- (d) Install Work plumb, true, square, level, straight, and accurately and tightly fitted together and to surrounding Work.
- (e) Entrance features are to be fitted together in the fabrication shop to ensure a proper fit and end product, prior to shipment to the Site. Final connections shall be made on Site.
- (f) Fastening systems for the entrance features are to be coordinated with the fencing works.

E26.9 Basis of Payment

- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a lump sum basis, for the "Items of Work" listed below, which price shall include all costs of material supply and proper installation.
- (b) Items of Work:
 - (i) Entrance Features Metal Panels