



THE CITY OF WINNIPEG

BID OPPORTUNITY

BID OPPORTUNITY NO. 863-2007

PLAYGROUND RENOVATIONS – CORDOVA PARK

TABLE OF CONTENTS

PART A - BID SUBMISSION

Form A: Bid	1
Form B: Prices	3

PART B - BIDDING PROCEDURES

B1. Contract Title	1
B2. Submission Deadline	1
B3. Site Investigation	1
B4. Enquiries	1
B5. Addenda	2
B6. Substitutes	2
B7. Bid Components	3
B8. Bid	4
B9. Prices	4
B10. Qualification	5
B11. Opening of Bids and Release of Information	6
B12. Irrevocable Bid	6
B13. Withdrawal of Bids	6
B14. Evaluation of Bids	7
B15. Award of Contract	7

PART C - GENERAL CONDITIONS

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

PART D - SUPPLEMENTAL CONDITIONS

General

D1. General Conditions	1
D2. Scope of Work	1
D3. Contract Administrator	1
D4. Contractor's Supervisor	1
D5. Notices	2

Submissions

D6. Authority to Carry on Business	2
D7. Insurance	2
D8. Subcontractor List	3
D9. Detailed Work Schedule	3

Schedule of Work

D10. Commencement	4
D11. Substantial Performance	4
D12. Total Performance	5
D13. Liquidated Damages	5
D14. Scheduled Maintenance	5

Control of Work

D15. Job Meetings	6
D16. Prime Contractor – The Workplace Safety and Health Act (Manitoba)	6

Measurement and Payment

D17. Payment	6
--------------	---

Warranty

D18. Warranty	6
Form J: Subcontractor List	8

PART E - SPECIFICATIONS

General

E1. Applicable Specifications and Drawings	1
--	---

General Requirements

E2. Site Access	1
E3. Permits, Notices, Licences, Certificates, Laws and Rules	2
E4. Damage to Existing Structures, Property, Services and Utilities	2
E5. Protection of Existing Trees	2
E6. Temporary Utilities	3
E7. Site Enclosures	4
E8. Layout	4
E9. Canadian Standards Association Guidelines	4
E10. Maintenance Kits	4

Works

E11. Removals and Site Preparation	4
E12. Wood Fibre Play Surfaces	5
E13. Crushed Limestone Paving	5
E14. Turf Remediation	6
E15. Timber Cribbing	6
E16. Pedra Wood Top Cap - on Timber Cribbing	7
E17. Site Furniture	8
E18. Foundations	8
E19. Play Structure	9
E20. Swings	13

PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 PLAYGROUND RENOVATIONS – CORDOVA PARK

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 12:00 noon Winnipeg time, February 29, 2008.

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

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

B3. SITE INVESTIGATION

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

B4. ENQUIRIES

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

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

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

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

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

B5. 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 regularly and shortly before the Submission Deadline, as may be amended by addendum.

B5.2.3 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.

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 may 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 B14.
- 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 COMPONENTS

- B7.1 The Bid shall consist of the following components:
- (a) Form A: Bid;
 - (b) Form B: Prices,

- B7.2 Further to B7.1, the Bidder should include the written correspondence from the Contract Administrator approving a substitute in accordance with B6.
- B7.3 All components of the Bid shall be fully completed or provided, and submitted by the Bidder no later than the Submission Deadline, with all required entries made clearly and completely, to constitute a responsive Bid.
- B7.4 The Bid shall be submitted enclosed and sealed in an envelope clearly marked with the Bid Opportunity number and the Bidder's name and address.
- B7.4.1 Samples or other components of the Bid 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.
- B7.5 Bidders are advised not to include any information/literature except as requested in accordance with B7.1.
- B7.6 Bidders are advised that inclusion of terms and conditions inconsistent with the Bid Opportunity document, including the General Conditions, may result in the Bid being determined to be non-responsive.
- B7.7 Bids submitted by facsimile transmission (fax) or internet electronic mail (e-mail) will not be accepted.
- B7.8 Bids 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 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 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 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.

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 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.

B9.1.1 Notwithstanding C12.2.3(c), prices on Form B: Prices shall include the Manitoba Retail Sales Tax (MRST, also known as PST), but exclude the GST, which shall be extra where applicable.

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; 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.

B10.2 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 Branch internet site at <http://www.winnipeg.ca/matmgt>).

B10.3 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);

B10.4 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.

B10.5 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. OPENING OF BIDS AND RELEASE OF INFORMATION

B11.1 Bids 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.

B11.1.1 Bidders or their representatives may attend.

B11.2 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 Branch internet site at <http://www.winnipeg.ca/matmgt>.

B11.3 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>.

B11.4 The Bidder is advised that any information contained in any Bid may be released if required by City policy or procedures, by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law.

B12. IRREVOCABLE BID

B12.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 9 of Form A: Bid.

B12.2 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.

B13. WITHDRAWAL OF BIDS

B13.1 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.

B13.1.1 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.

B13.1.2 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.

B13.1.3 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 B13.1.3(b), declare the Bid withdrawn.

B13.2 A Bidder who withdraws his Bid after the Submission Deadline but before his Bid has been released or has lapsed as provided for in B12.2 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.

B14. EVALUATION OF BIDS

B14.1 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.

B14.2 Further to B14.1(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.

B14.3 Further to B14.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in his Bid or in other information required to be submitted, that he is responsible and qualified.

B14.4 Further to B14.1(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.

B14.4.1 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.

B15. AWARD OF CONTRACT

B15.1 The City will give notice of the award of the Contract or will give notice that no award will be made.

B15.2 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.

B15.2.1 Without limiting the generality of B15.2, 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.

B15.3 Subject to B15.2, 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.

B15.3.1 Following the award of contract, a Bidder will be provided with information related to the evaluation of his Bid upon written request to the Contract Administrator.

B15.4 Notwithstanding C4, the City will issue a Purchase Order to the successful Bidder in lieu of the execution of a Contract.

B15.5 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 Branch internet site at <http://www.winnipeg.ca/matmgt>.
- 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 Playground Renovations at the Norwood Community Centre.

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

- (a) Removal of existing play equipment, play surfaces, benches, timber cribbing and sod;
- (b) Supply and installation of play equipment;
- (c) Supply and installation playground safety surfacing, timber cribbing and top caps;
- (d) Supply and installation of granular paving;
- (e) Supply and installation of benches and accessible picnic table.

D3. CONTRACT ADMINISTRATOR

D3.1 The Contract Administrator is Lombard North Group, represented by:

Ric Carreon
Landscape Architect
505 - 93 Lombard Ave.
Winnipeg, Manitoba
Telephone No. (204) 943-3896
Facsimile No. (204) 947-5696
Email: ric@lombardnorth.com

D3.2 At the pre-construction meeting, Ric Carreon will identify additional personnel representing the Contract Administrator, the City of Winnipeg 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.

D4.2 The designated supervisor shall remain on Site at all times during the Work and shall be authorized by the Contractor to make legally binding decisions on behalf of the Contractor.

D5. NOTICES

D5.1 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.

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 D3.1.

- D5.3 All notices of appeal to the Chief Administrative Officer shall be sent to the following address or facsimile number:

The City of Winnipeg
Chief Administrative Officer Secretariat
Attn: Chief Administrative Officer
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
Attn: City Solicitor
185 King Street, 3rd Floor
Winnipeg MB R3B 1J1
Facsimile No.: (204) 947-9155

SUBMISSIONS

D6. AUTHORITY TO CARRY ON BUSINESS

- D6.1 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.

D7. INSURANCE

- D7.1 The Contractor shall provide and maintain the following insurance coverage:
- (a) commercial general liability insurance, in the amount of at least two million dollars (\$2,000,000.00) inclusive, with The City of Winnipeg added as an additional insured, 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) automobile liability insurance for 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;
- D7.2 Deductibles shall be borne by the Contractor.
- D7.3 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.
- D7.4 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.

D8. SUBCONTRACTOR LIST

D8.1 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.

D9. DETAILED WORK SCHEDULE

D9.1 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.

D9.2 The detailed work schedule shall consist of the following dates:

- (a) Start date;
- (b) Removals of Playground site elements and excavation of holes for the play equipment posts;
- (c) Arrival of all play, bench and picnic table equipment, wood fibre, timber cribbing to the Site; and installation;
- (d) Gravel path development;
- (e) Expected completion.

D9.3 Other milestone dates appropriate to this project should also be included.

SCHEDULE OF WORK

D10. COMMENCEMENT

D10.1 The Contractor shall not commence any Work until he is in receipt of a Purchase Order 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:
 - (i) evidence of authority to carry on business specified in D6;
 - (ii) evidence of the workers compensation coverage specified in C6.15;
 - (iii) evidence of the insurance specified in D7; and
 - (iv) the Subcontractor list specified in D8.
- (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.

D10.3 The Contractor shall commence the Work on the Site within seven (7) Working Days of receipt of the Purchase Order.

D11. SUBSTANTIAL PERFORMANCE

D11.1 The Contractor shall achieve Substantial Performance within fifteen (15) consecutive Working Days of the commencement of the Work as specified in D10.

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 reinspected.

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 within twenty (20) consecutive Working Days of the commencement of the Work as specified in D10.

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 reinspected.

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 seven hundred and fifty dollars (\$750) per Working Day for each and every Working 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 damages 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.

D14. SCHEDULED MAINTENANCE

D14.1 The Contractor shall perform scheduled maintenance in the manner and within the time periods required by the Specifications:

D14.2 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

D15. JOB MEETINGS

D15.1 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.

D15.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he deems it necessary.

D16. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)

D16.1 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).

MEASUREMENT AND PAYMENT

D17. PAYMENT

D17.1 Further to C12, effective January 1, 2007 the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

WARRANTY

D18. WARRANTY

D18.1 Notwithstanding C13.2, the warranty period shall begin on the date of Total Performance and shall expire two (2) years thereafter unless extended pursuant to C13.2.1 or C13.2.2, in which case it shall expire when provided for thereunder.

D18.2 Notwithstanding C13.2 or D18.1, 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) 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; or

D18.2.1 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.

D18.3 Manufacturer's warranties on play equipment and safety surfacing shall apply.

PART E - SPECIFICATIONS

GENERAL

E1. APPLICABLE SPECIFICATIONS AND DRAWINGS

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

<u>Drawing No.</u>	<u>Drawing Name/Title</u>
106/07-E1	CORDOVA PARK PLAYGROUND RENOVATIONS - EXISTING CONDITIONS AND REMOVALS
107/07-S1	CORDOVA PARK PLAYGROUND RENOVATIONS - SITE PLAN
108/07-L1	CORDOVA PARK PLAYGROUND RENOVATIONS - SENIOR AREA LAYOUT PLAN
109/07-L2	CORDOVA PARK PLAYGROUND RENOVATIONS - JUNIOR AREA LAYOUT PLAN
110/07-D1	CORDOVA PARK PLAYGROUND RENOVATIONS - DETAILS
111/07-D2	CORDOVA PARK PLAYGROUND RENOVATIONS - DETAILS
5374-A	Play Structure
5374-B	Swings

- E1.4 Bidders are reminded that requests for approval of substitutes as an approved equal or an approved alternative shall be made in accordance with B6.

GENERAL REQUIREMENTS

E2. SITE ACCESS

- E2.1 Access to the Site will be determined at the pre-construction meeting. These access areas shall be maintained and restored by the Contractor at his own expense and approved by the Contract Administrator.
- E2.2 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.

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

- E3.1 Further to C6.12, the Contractor shall give all necessary notices, obtain all necessary permits and pay all fees in order that the Work may be carried out. The Contractor shall submit all plans required by any inspection authority and obtain approval of same before proceeding with the Work, and pay any cost attached to the inspection of such plans.
- 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 the Manitoba Workplace Health and Safety Act
- E3.5 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety 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 Health and Safety Guidelines and all other applicable codes. The Contractor is responsible for the immediate notification to the Contract Administrator of his/her encountering of suspected hazardous material during their course of Work.

E4. DAMAGE TO EXISTING STRUCTURES, PROPERTY, SERVICES AND UTILITIES

- E4.1 Further to C17, all necessary precautions shall be exercised by the Contractor so as not to remove, disturb, or damage any existing trees, shrubs, sod, pavements, streets, roads, boulevards, poles, hydrants, water pipes, gas pipes, electrical wires, cables, conduits, sewers or other existing facilities and equipment at the Site of the Work. For all damage incurred thereto in the performance of the Work, the Contractor shall upon instructions from and to the satisfaction of the Contract Administrator and the City, either replace and repair such damage, whichever may be deemed necessary in the opinion of, and acceptable to, the Contract Administrator and the City. The cost of which shall be borne entirely by the Contractor. The Contractor shall also indemnify and save harmless the City and Lombard North Group from all claims made directly or indirectly against it in respect to any such damage.
- E4.2 The Contractor's operations shall be limited to the minimum area necessary for undertaking the Work and he shall be responsible for all damage resulting from his Work on private property. The Contractor shall take such measures as are necessary to ensure safe and convenient pedestrian ingress and egress is maintained to private properties while he is working near them. Any damage caused by the negligence of the Contractor or his Sub-contractors to the adjacent Works or properties, shall be promptly repaired by him at his own expense, to the satisfaction of the Contract administrator.
- E4.3 Existing Services and Utilities:

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

E5. PROTECTION OF EXISTING TREES

- E5.1 The Contractor shall take the following precautionary steps to prevent damage from construction activities to existing trees within the limits of the construction area:
 - (a) Trees greater than 100 mm diameter or trees identified to be at risk by the Contract Administrator are to be strapped with 25x100x2440 mm wood planks, or other suitable protection as approved by the Contract Administrator. Do not use nails or other fasteners that penetrate the tree trunk. The width and length of strapping may be reduced to suit the tree being protected as approved by the Contract Administrator.
 - (b) Excavation shall be performed in a manner that minimizes damage to the existing root systems. Where possible, excavation shall be carried out such that the edge of the excavation shall be a minimum of 1.5 times the diameter (measured in inches) where 1 inch diameter equals 1 foot measured from the outside edge of the trunk of the tree at 6 inches above grade. Where roots must be cut to facilitate excavation, they shall be pruned neatly at the face of excavation by an arborist certified to practice in the province of Manitoba.

- (c) Equipment shall not be operated within the drip line without written permission from the Contract Administrator. Equipment shall not be parked, repaired, refuelled; construction materials shall not be stored, and earth materials shall not be stockpiled within the drip lines of trees. The drip line of a tree shall be considered to be the entire ground surface located directly beneath the tree and radiating out to the tips of its outermost branches. The Contractor shall ensure that the operations do not cause flooding or sediment deposition on areas where trees are located.
- (d) Repair, replace and maintain tree protection materials during construction until the completion of the Work.
- (e) Carefully remove safety fencing and strapping material without harming the trees as soon as the construction and restoration Work is complete.

- E5.2 Obtain approval from the Contract Administrator to excavate within 2.0 M of a tree.
- E5.3 Excavate in a manner to minimize damage to the tree root systems. Keep exposed roots in excavations and trenches moist or shaded. If stockpiling of excavated soil material is required, stockpile in areas away from the tree roots if possible.
- E5.4 Prune exposed roots with equipment such as trencher, chain saws, root cutters or other methods acceptable to the Contract Administrator in a manner that will leave a neat, clean root end.
- E5.5 Take precautions to ensure tree limbs overhanging the Work area are not damaged by construction equipment. Contact the Forestry Branch for consultation or pruning of overhanging or damaged limbs and branches and other unanticipated problems with trees during the construction of the Works.
- E5.6 All damage or pruning required to existing trees caused by the Contractor's activities shall be repaired to the requirements and satisfaction of the Contract Administrator and the Forestry Branch. Damages must be repaired by an individual with a Manitoba Arborist Licence or by the Forestry Branch.
- E5.7 Protection of existing trees, repair of trees and pruning of damaged limbs will not be measured for payment and is to be included with the Underground or Surface Works. Removal and replacement of existing trees by the Forestry Branch deemed to have died or that are dying due to damage from carelessness during construction, will be at the Contractor's cost. The Contractor will be invoiced for the cost, or have the cost deducted from any payments owing.

E6. TEMPORARY UTILITIES

- E6.1 Further to C6.12, 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.
- E6.2 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.

E7. SITE ENCLOSURES

- E7.1 Temporary Site enclosures, as determined necessary at the pre-construction meeting, shall be erected and maintained as required for the duration of the construction period.
- E7.2 Site enclosures shall be considered incidental to the Contract Work.

E8. LAYOUT

- E8.1 The Contractor is responsible for the layout of all Work. The Contractor is to coordinate the layout of all play spaces with the play equipment supplier to ensure that CSA requirements are

met.

- E8.2 The Contract Administrator shall be advised of the staking of the layout at least twenty-four (24) hours in advance in order that the layout may be inspected and adjusted as required prior to construction.

E9. CANADIAN STANDARDS ASSOCIATION GUIDELINES

- E9.1 All playground equipment supplied and the method of installation shall be in accordance with the latest edition of the "National Standard of Canada, CAN/CSA-Z614-07".

E10. MAINTENANCE KITS

- E10.1 All play equipment shall include the supply of maintenance kits. Maintenance kits shall include maintenance manuals, complete manufacturer's parts lists, touch-up paint, PVC repair paint, 10% extra of each bolt, washer and any other hardware utilized on the play equipment, and all special tools necessary for assembly and maintenance.

WORKS

E11. REMOVALS AND SITE PREPARATION

E11.1 General Description

- (a) This specification shall cover the removal of items such as sod, play equipment, play area safety surfaces, timber cribbing and site furniture, at Cordova Park as specified on the Existing Conditions and Removals Drawing.

E11.2 Removals:

- (a) Play equipment and benches are to be removed, where required including any bases or foundations in their entirety. Play equipment is to be removed and legally disposed of; and, under no circumstances, is any of it to be sold or reused. Removals are to be scheduled such that no partial or unsafe structures are left unsecured.
- (b) Removal of existing safety stones, sand and portions of play area timber cribbing shall be removed and legally disposed of off Site. The Contractor is responsible for removing these materials within play structure areas without damaging existing timber cribbing.
- (c) Portions of existing sod shall be removed and legally disposed of off Site. It is the Contractor's responsibility to ensure that existing sod, timber cribbing and any other existing Site elements are not damaged during removals.

E11.3 Basis of Payment:

- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measurements as specified on Form B: Prices, for the Items of Work listed below, which price shall include all costs of removal, excavation and disposal.
- (b) Items of Work
- (i) Removals.

E12. WOOD FIBRE PLAY SURFACES

E12.1 Description:

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

E12.2 Materials:

- (a) Wood Fibre product shall Zeagar Woodcarpet, or approved equal in accordance with B6
- (i) Contact for Woodcarpet:
Zeagar Bros. Inc.

4000 East Harrisburg Pike ·
Middletown, PA 17057, USA
Ph: (1-888) 346-8524 or (717) 944-7481 ·
Fax (717) 944-7681
sales@zeager.com

- (b) Wood Fibre surfacing shall include wood fibre, geo-textile fabric and drainage.

E12.3 Method:

- (a) Wood Fibre shall be installed within the designated play areas, as defined by the timber cribbing, to the depth required by the latest version of CSA and the manufacturer's specification.
- (b) The sub-grade and gravel base shall be sloped min. 1% and max. 2% to the lower end of the play area and edges to achieve positive drainage of the play area.
- (c) 50mm dia. drain holes shall be drilled and PVC pipes secured along timber cribbing every 6m to ensure moisture is released out of the play area, as specified in the drawings.

E12.4 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 material supplied for the wood fibre system, sub-grade preparation, and proper material installation.
- (b) Items of Work:
 - (i) Wood Fibre Play Surfaces.

E13. CRUSHED LIMESTONE PAVING

E13.1 Description:

- (a) Further to CW 3110-R10, this specification shall cover the supply and installation of crushed limestone paving including sub-grade preparation.

E13.2 Materials and Method:

- (a) Base: 150 mm depth of 50 mm down crushed limestone, compacted in two lifts.
- (b) Top: 50 mm depth of 20 mm down crushed limestone, compacted.

E13.3 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 for gravel paving, sub-grade preparation, and proper material installation.
- (b) Items of Work:
 - (i) Crushed Limestone Paving.

E14. TURF REMEDIATION

E14.1 Description:

- (a) This specification shall cover the supply and installation of topsoil and sod for the renovation of turf as shown on the Drawings.

E14.2 Materials and Method:

- (a) Topsoil: As per CW 3540-R5.
- (b) Sodding:
 - (i) As per CW 3510-R9.

- (ii) Sod shall be mineral base.
- (c) Areas to be renovated shall be excavated and surplus materials removed off-site in a legal manner.
- (d) Edges are to be cut neatly in straight lines and new sod is to be installed to match the existing grades of the surrounding turf. Positive drainage away from play areas is to be maintained.
- (e) Seams between new and old turf are to be top dressed and seeded.
- (f) Only those areas shown on the Drawings as Turf Remediation shall be paid for under this section. All other Site restoration shall be considered incidental to other Works.

E14.3 Maintenance Period:

- (a) The Contractor shall maintain the sod for thirty (30) Calendar Days after the completion of the installation or until such a time as the turf is established in accordance with CW 3510-R9.

E14.4 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 material supply for turf remediation, proper material installation, maintenance and all other items incidental to the Work.
- (b) Items of Work:
 - (i) Turf Remediation

E15. TIMBER CRIBBING

E15.1 General Description

E15.2 This specification shall cover the supply and installation of timber edging to contain the safety surfacing for the playground areas.

E15.3 Materials:

- (a) Two Tier timber Cribbing.
- (b) Timber Cribbing shall be subject to inspection and approval by the Contract Administrator.
- (c) All wood shall be cedar, spruce, pine or fir, No. 2 or better, no wane, bark, checking or splitting permitted. Wood shall be smooth and free of rough areas. All timbers to be 150mm x 150mm with a minimum length of 1200mm. Top edges of all exposed timbers shall have a 8mm (45°) chamfer.
- (d) For timber edging that will be in contact with the ground soil, the wood shall be ACQ treated as approved for use by Environment Canada. All ends and cuts shall be treated with preservative before being secured.
- (e) For exposed timber edging (top row of two tier edging), the wood shall NOT be pressure treated. The wood shall be treated with Bio-Wash Ltd., Mill Glaze Away and Natural Deck Oil as per manufacturer's specifications.
- (f) Pedra deckboard cribbing top cap. Pedra boards shall be 30mm x 150mm x 5000mm cut to fit and fastened on the top tier of timber cribbing using galv. lag screws.
- (g) 12mm dia. x 250mm galv. spikes placed 1200mm O.C.
- (h) 19mm dia. x 900mm rebar placed 1200mm O.C.

E15.4 Method:

- (a) Layout of edging shall be as shown on Drawings and to adequately provide safety surfacing area beneath play equipment, based on the most recent CSA safety zone requirements.

- (b) The layout of the timber edging shall be coordinated with the installation of the play equipment to ensure that the proper safety zones are created around the equipment.
- (c) Base course timbers shall be pinned with a minimum of two (2) 19mm diameter by 900mm rebar at maximum 1200mm O.C. All rows of timber above base course shall be securely spiked with a minimum of two (2) 12mm diameter by 250mm spikes predrilled at maximum 1200mm O.C.
- (d) All timbers shall be cut neatly for a proper fit with no spaces or gaps between. All cuts shall be stained before being secured. Finished elevations shall ensure that all timbers are smooth, level, set plumb and spaced uniformly.
- (e) Turf shall be repaired as required around edging in accordance with City of Winnipeg Standard Specifications for Topsoil and Sodding. This shall be considered incidental to the timber cribbing Work.
- (f) All Pedra deckboard top caps shall be cut neatly for a proper fit with no spaces or gaps between. Deckboards are to be secured by using two (2) 75mm galv, lag screws, countersunk and spaced at 600mm O.C.

E15.5 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) Timber Cribbing.

E16. PEDRA WOOD TOP CAP - ON TIMBER CRIBBING

E16.1 General Description

E16.2 This specification shall cover the supply and installation of Pedra Wood Top Cap along tops of all existing and new timber cribbing.

E16.3 Materials:

- (a) Pedra deckboard cribbing top cap. Pedra boards shall be 30mm x 150mm x 5000mm cut to fit and fastened on the top tier of timber cribbing using galv. lag screws.

E16.4 Method:

- (a) Layout of Pedra Top Caps shall be as shown on Drawings and shall coordinated with installation of Wood Fibre Surfacing System.
- (b) All Pedra deckboard top caps shall be cut neatly for a proper fit with no spaces or gaps between. Deckboards are to be secured by using two (2) 75mm galv, lag screws, countersunk and spaced at 600mm O.C.

E16.5 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 for Pedra wood top cap, proper material installation, maintenance and all other items incidental to the Work.
- (b) Items of Work:
 - (i) Pedra Wood Top Cap

E17. SITE FURNITURE

E17.1 Description:

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

Drawings or approved equal.

E17.2 Materials and Method:

(a) Benches and Picnic Tables:

- (i) Cascade Contour Benches, 72" long, green coloured recycled plastic (#234), with in-ground and surface mounting units or approved equal in accordance with B6, as supplied by;

Playgrounds-R-Us
250 Transport Rd.
Box 7, Grp. 582, R.R. #5
Winnipeg, MB R2C-2Z2
Ph: (204) 632-7000
Fax (204) 632-7421

- (ii) Wabash Round Picnic Tables, Spyder Series, Model No. SY116D, ADA compliant Picnic Table, green colour with diamond pattern, portable units or approved equal in accordance with B6, as supplied by;

Sudden Fun Recreation Equipment Ltd.
Box 48298 Midlake R.P.O.
Calgary, AB T2X-3C7
Ph: (403) 254-0500
Fax (403) 254-0524

- (iii) Benches are to be installed according to Drawings for in-ground units.
(iv) Picnic Tables are to be installed as portable units and are to be secured on Site using a spike and chain, as shown on Drawings.

- (b) 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.

E17.3 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 material supply, and proper material installation. Site restoration work and required foundations shall be considered incidental to the Work.

(b) Items of Work:

- (i) Site Furniture – Benches;
(ii) Site Furniture - Picnic Tables.

E18. FOUNDATIONS

E18.1 All Site furniture and playground equipment posts, bases and anchors are to be set in concrete footings or piles to ensure stability and prevent frost heaving. The current Standard Construction Specifications of the City of Winnipeg, CW 2160-R7 – Concrete Underground Structures and Works, is to be utilized in the installation of the concrete works for all below ground components.

E18.2 The specific concrete requirements shall be:

- (a) Sulfate resistant, Type 50 Cement;
(b) 28 day compressive strength of 30 Mpa;
(c) maximum aggregate size of 20 mm, nominal;
(d) slump 80 ±20 mm;
(e) maximum water/cement ratio 0.49.

E18.3 Installation:

- (a) Contractor shall notify the Contract Administrator at least 48 hours prior to installation of

concrete, so that footings may be inspected in advance of concrete being poured.

- (b) Play structure posts shall have a minimum 300mm (12") diameter concrete footing and shall be centred in the concrete footing to provide a minimum 50mm (2") band of concrete on all sides.
- (c) All concrete footings for play equipment shall be a minimum of 90cm depth or in accordance with manufacturer's specifications, whichever is greater.
- (d) Work under this section is considered incidental to the installation of Play Structure and Site Furniture.

E19. PLAY STRUCTURE

E19.1 Description:

- (a) This specification shall cover the supply and installation of the Play structures as shown on the Drawings or approved equal in accordance with B6.

E19.2 Product:

- (a) Play Structure:
 - (i) GameTime, PowerScape Plus Structure as depicted on the attached Drawing Play Structure #5374-A, or approved equal in accordance with B6, as supplied by;
Crozier Agencies
#8 – 1865 Sargent Ave.
Winnipeg, MB R3H-0E4
Ph: (800) 665-3821
Fax (204) 774-6099
E-Mail: crozier@mts.net
Website: www.crozier.ca

E19.3 Shop Drawings:

- (a) This specification shall cover the supply and installation of the Play structures as shown on the Drawings.
- (b) Further to CW 1110-R1, shop drawings shall be submitted to the Contract Administrator for all the play equipment specified in this Section, within fourteen (14) Calendar Days of receipt of a Purchase Order.
- (c) Shop Drawings shall include, but not be limited to:
 - (i) Layout and configuration of equipment including required safety zones;
 - (ii) Colours;
 - (iii) Custom graphics or products.

E19.4 General System Specifications:

- (a) PowerScape® Plus features 5" O.D. uprights with a positive bolt-through PowerLock fastening system. The uprights shall be factory drilled to ensure accurate placement of components and ease of installation. Field drilling and measuring are not required. PowerScape® Plus is a direct bolt system NOT a clamp system. All uprights shall receive factory installed aluminum post caps and shall be shipped with a factory applied label indicating proper surfacing level.
- (b) All decks and components shall connect to support posts by means of a through-bolt connection for strong, durable connections. Deck/Collar attachments shall not be acceptable. All climbing attachments shall include a 15" wide deck entry archway to control deck access to one child at a time and help prevent inadvertent falls.
- (c) Further to D18, the manufacturer shall offer the following warranties on the materials and components of its system:
 - (i) LIFETIME LIMITED WARRANTY ON SUPPORT POSTS (UPRIGHTS)
 - (ii) 15 YEAR LIMITED WARRANTY ON PUNCHED STEEL DECKS, PIPES, RAILS,

LOOPS AND RUNGS

- (iii) 15 YEAR LIMITED WARRANTY ON ROTOMOLDED POLYETHYLENE COMPONENTS
- (iv) LIFETIME LIMITED WARRANTY ON POWERLOCK AND HARDWARE
- (d) Manufacturer shall be ISO 9001/2000 certified. Manufacturer shall show IPEMA certification of compliance for each component that the product conforms with the requirements of ASTM F1487-07ae1.

E19.5 Materials:

(a) Entry Archway:

- (i) All entry archways shall be fabricated from 1 5/16" O.D. x .083" (14 gauge) wall galvanized steel tubing with vertical members fabricated of 1 1/16" O.D. x .075" (15 gauge) wall galvanized steel tubing. The entrance archways shall be an all welded assembly and shall be coated with a custom formula of TGIC polyester powder, after fabrication in conformance with the specifications outlined herein.

(b) Hardware:

- (i) All nuts, bolts, screws, inserts, and lockwashers used in the assembly of all play equipment shall be stainless steel, yellow dichromate plated steel, blue-coat plated steel, mechanically galvanized or powder coated/yellow dichromate plated steel. All primary fasteners shall be 304 alloy stainless steel. Fasteners with yellow dichromate treatment have an electro-deposited, 99.9% pure zinc substrate applied from a specially formulated solution sealed with a yellow dichromate top coat designed to work in conjunction with the zinc plating. Yellow dichromate has a 320% longer life to white corrosion and 275% longer to red corrosion than does hot-dip galvanizing. PowerScape Plus stainless steel fasteners shall be button pin-in head, hex socket cap screws with a two-part epoxy locking patch added to the threads. The two-part locking patch shall consist of one part resin and one part catalyst which are activated during installation. After curing, the material shall require a minimum of five times the installation torque to remove the fastener. The Contractor shall provide special installation tools for pinned fasteners.

(c) Powder Coat Finish:

- (i) Shall be an electrostatically applied custom formula of TGIC polyester powder. All components will be free of sharp edges and excess weld spatter and shall be cleaned in a six stage bath system with an iron phosphate wash, as a rust inhibitor, and a sealer to prevent flash rusting before coating. The coating shall have a super tough finish with maximum exterior durability and must have superior adhesion characteristics. Typical characteristics are: 3.0 - 5.0 mil thickness and oven cured between 375 to 425 degrees Fahrenheit. Pencil Hardness H (ASTM D-3363), Impact (ASTM D-2794- 69), Wedge Bend (ASTM D-522-68), Adhesion (Cross Hatch ASTM D-3359 & Knife Scratch ASTM D-2197), Environmental (Stain Resistance ASTM D-1308, Humidity ASTM D-2247 - 87, Salt Spray ASTM B-117 & Fadometer 300 hrs with no loss of gloss), Over-bake Stability 100% at 400 degrees Fahrenheit.

(d) Rotationally Molded Products:

- (i) All polyethylene shall be linear low-density material with UV-stabilized colour and an anti-static compound additive. All rotationally molded products shall meet or exceed the following specifications: ASTM D-1248, type 2, class A and Federal specification LP-390C, type 1, class M, grade 2, category 3; Density (ASTM D- 1505); Brittleness Temperature (ASTM D-746); Tensile Values (ASTM D-638); Flexural Modulus (ASTM D-790);Heat Distortion (ASTM-648); Low Temperature Impact (ARM-STD).

(e) Steering Wheels:

- (i) Available in plastic and aluminum. The plastic steering wheel shall be molded of a durable proprietary plastic. The steering wheel will withstand an impact of over 250 foot-pounds. The steering wheel is approximately 13-3/4" in diameter. The aluminum steering wheel is formed of solid 13 gauge aluminum with a custom formula of TGIC polyester powder coating in conformance with the specifications outlined herein. The

solid steering wheel is 12-5/8" in diameter.

(f) PowerLock Connection:

- (i) The Patented assemblies shall incorporate two die cast aluminum parts, in a distinctive purpose mounting system that allows a rung panel to mount to the upright. The Powerlock connector will have a matching counterpart for flat panel connections. Each is bolted directly into the upright post through a factory located and installed connection and designed to eliminate exposed hardware and protrusions. Each shall be die cast of 383 aluminum alloy, to resist corrosion. Minimum tensile strength shall be 45,000 psi, minimum yield strength shall be 22,000 psi. Every Powerlock shall be anodized for maximum protection. Powerlock mounting hardware shall not be exposed, virtually eliminating tampering by vandals. All connectors shall be coated with a custom formula of TGIC polyester powder coating, in conformance with the specifications outlined herein.

(g) Uprights, Aluminum:

- (i) Shall be 5" outside diameter tubing, 1/8" wall thickness, extruded from 6005-T5 aluminum alloy conforming to ASTM-B-221. Minimum yield strength shall be 35,000 psi and minimum tensile strength shall be 38,000 psi. All upright posts shall have a finished grade line marking to indicate the correct playground safety surface level. All upright posts shall be coated with a custom formula TGIC polyester powder coating in conformance with the specifications outlined herein.

(h) Uprights, Steel:

- (i) Shall be 5" outside diameter, 11 gauge (.120") galvanized round tubing, manufactured to ASTM A-500 Grade B tolerances from cold-formed steel conforming to ASTM A-569 Sheet Spec for steel coil. Minimum yield strength shall be 50,000 psi and minimum tensile strength shall be 55,000 psi. The exterior surface is hot dip galvanized, chromate conversion coated, and a clear high performance organic polymer is applied. The inside diameter has 81% minimum zinc rich primer capable of providing excellent rust protection and fabrication characteristics. All coatings are applied inside and out after welding for superior corrosion protection throughout. Exterior surface galvanizing zinc purity is 99% as per ASTM B-6 high grade and special high grade. Galvanizing coverage shall demonstrate the ability to exceed 1000 hours salt spray corrosion exposure in accordance with ASTM B-117. Internal surface zinc rich 81% minimum zinc dust content in organic resin, as per ASTM F-1234, Section 5.2.4, Type D. All upright posts shall have a finished grade line marking to indicate the correct playground safety surface level. All upright posts shall be coated with a custom formula TGIC polyester powder coating in conformance with the specifications outlined herein.

(i) Upright Caps

- (i) The standard upright cap shall be an aluminum cap, cast from a 383 alloy, powder coated to match the upright. Every upright cap shall receive a primer coat for maximum protection. All upright caps are permanently installed at the factory using aluminum self-sealing rivets.

(j) Punched Steel Decks and PVC Coated Components:

- (i) All punched steel products shall be fabricated from 11 gauge punched steel with a protective p&o finish. Coated products shall consist of a welded assembly with an oven cured matte finish polyvinyl chloride (PVC) coating with a minimum coating thickness of .080". All decks shall be exclusively dipped utilizing the DuraWear process with an extra thick coating on the top of the deck. The PVC coating shall have a hardness of Shore A 83 +/-5 normal durometer range. This material is classed as "Self Extinguishing", meets or exceeds automotive specifications NVSS302, and contains ultraviolet inhibitors to help prolong the life of the coating. For ADA Ramp Accessible decks and ramps, the hole shall measure 1/4" diameter after coating. For standard decks and ramps, the hole size shall measure 1 1/4" diameter after coating.

(k) Crow's Nest:

- (i) Shall have a minimum surface area of 501 square inches. The deck shall be fabricated in conformance with the punched steel specifications outlined herein. The deck frame shall be fabricated from 3/16" x 3-1/2" hot rolled steel with the intermediate supports fabricated from 1/8" x 2-1/2" hot rolled steel. The deck shall be a one-piece welded assembly.
- (l) Decks, Square:
 - (i) Shall have a minimum surface area of 2,381 square inches, maintaining a full 49" center to center spacing on the upright posts. The 49" square deck shall be fabricated in conformance with the punched steel specifications outlined herein. The deck frame shall be fabricated from 3/16" x 3-1/2" hot rolled steel with corner supports fabricated from 1/4" x 3-1/2" hot rolled steel. Intermediate supports, fabricated from 1/8" x 2-1/2" hot rolled steel, shall be notched and welded at the intersections forming a rigid 12" support grid underneath the entire deck surface. The deck shall be a one-piece welded assembly, coated after fabrication with an oven cured matte finish polyvinyl chloride (PVC) coating in accordance with the specifications herein. The square deck shall be directly bolted to the upright posts with eight 3/8" diameter button-pin-in-head, hex socket cap screws in accordance with the hardware specifications herein.
- (m) Decks, Triangle:
 - (i) Shall have a minimum surface area of 1,039 square inches, maintaining a full 49" center to center spacing on the upright posts. The triangular platform shall be fabricated in conformance with the punched steel specifications outlined herein. The deck frame shall be fabricated from 3/16" x 3-1/2" hot rolled steel with corner supports fabricated from 1/4" x 3-1/2" hot rolled steel. Intermediate supports, fabricated from 1/8" x 2-1/2" hot rolled steel, shall be welded at the intersections forming a rigid support grid underneath the deck surface. The deck shall be a one-piece welded assembly, coated after fabrication with an oven cured matte finish polyvinyl chloride (PVC) coating in accordance with the specifications herein. Each triangular deck shall be directly bolted to the upright posts with six 3/8" diameter button-pin-in-head, hex socket cap screws in accordance with the hardware specifications herein.

E19.6 Play Components:

- (a) The following play components are to be included on the Play Structure; or, approved substitute in accordance with B6:
 - (i) One (1) Punched Steel Ramp Attachment;
 - (ii) One (1) Hexagonal Deck 1' off ground up to 2' using 1' & 6" steps;
 - (iii) One (1) Toad Stool Climber;
 - (iv) One (1) ADA Crow's Nest Gizmo Panel;
 - (v) One (1) Solid Steering Wheel Enclosure;
 - (vi) One (1) Little Foot Slide w/ Universal Hood;
 - (vii) One (1) Overhead Ladder Access Package;
 - (viii) One (1) Handhold Package w/ Kickplate;
 - (ix) One (1) Mini Pod Link (1 deck span);
 - (x) Two (2) 2' high Triangle Decks;
 - (xi) One (1) Leaning Wall Climber;
 - (xii) One (1) Horizontal Ladder Link (2 deck span);
 - (xiii) One (1) Corkscrew Climber;
 - (xiv) One (1) Incline Cosmix Climber;
 - (xv) One (1) 4' high Square Deck;
 - (xvi) One (1) Rung Access Ladder;
 - (xvii) One (1) Rung Enclosure;
 - (xviii) One (1) Xcelerator;

(xix) One (1) 6' high F5 Spiral Slide w/ hood.

(b) The play structure shall have grab bars, kick plates and handhold panels as shown on the Drawings and as required to meet the CAN/CSA -Z614-07.

E19.7 Colours:

(a) The following colours are selected for play elements of the Play Structure; or, approved substitute in accordance with B6,

- (i) Posts: Green;
- (ii) Slides, Steel Rails, Panels: Yellow;
- (iii) Clamps, Climbers, Pod Link Steps and Ladders: Red;
- (iv) Decks, Ramps: Blue.

E19.8 Installation:

(a) Play structures shall be installed as per the Canadian Standards Association Guidelines. All posts and other vertical items shall be true to vertical. All decks shall be level. For foundations refer to Clause E18.

(b) Play structures shall be installed by factory certified installers only and to manufacturer's specifications

(c) Installation of play structures shall be coordinated with associated site development work. The play structures shall be secured and rendered unusable until safety surface is in place.

E19.9 Basis of Payment:

(a) Payment for Work specified under this section shall be paid for at the lump sum price for the "Items of Work" listed below, which price shall include all costs of supply and installation.

- (b) Items of Work:
- (i) Play Structure

E20. SWINGS

E20.1 Description:

(a) This specification shall cover the supply and installation of the Swings as shown on the Drawings or approved equal in accordance with B6.

E20.2 Product:

(a) Swings:

- (i) GameTime, PrimeTime Swings as depicted on the attached Drawing Swings #5374-B or approved equal, in accordance with B6, as supplied by;

Crozier Agencies
#8 – 1865 Sargent Ave.
Winnipeg, MB R3H-0E4
Ph: (800) 665-3821
Fax (204) 774-6099
E-Mail: crozier@mts.net
Website: www.crozier.ca

E20.3 General System Specifications:

(a) The uprights shall be factory drilled to ensure accurate placement of components and ease of installation. Field drilling and measuring are not required. GT Events are direct bolt products NOT a clamp system. All uprights shall receive factory installed aluminum post caps and shall be shipped with a factory applied label indicating proper surfacing level.

(b) All decks and components shall connect to support posts by means of a through-bolt connection for strong, durable connections. Deck/Collar attachments shall not be

acceptable.

- (c) Further to D18, manufacturer shall offer the following warranties on the materials and components of its system:
 - (i) LIFETIME LIMITED WARRANTY ON SUPPORT POSTS (UPRIGHTS)
 - (ii) 15 YEAR LIMITED WARRANTY ON PUNCHED STEEL DECKS, PIPES, RAILS, LOOPS AND RUNGS
 - (iii) 15 YEAR LIMITED WARRANTY ON ROTOMOLDED POLYETHYLENE COMPONENTS
 - (iv) LIFETIME LIMITED WARRANTY ON POWERLOCK AND HARDWARE
- (d) Manufacturer shall be ISO 9001/2000 certified. Manufacturer shall show IPEMA certification of compliance for each component that the product conforms with the requirements of ASTM F1487-07ae1.

E20.4 Materials:

- (a) Enclosed Tot Seat:
 - (i) Fully Enclosed Seats shall be fabricated with .025" thick stainless steel inserts covered by a dark green coloured EPDM rubber.
 - (ii) Seats shall be furnished with factory installed "S" Hooks.
- (b) Belt Seat:
 - (i) Commercial Belt Seat - an extra piece of fluted rubber at the front and back of seat gives it a cushion bumper.
 - (ii) Seats shall be furnished with factory installed "S" Hooks.
- (c) Chain:
 - (i) Material: 7/32" diameter steel wire.
 - (ii) Dimensions (inside for each link): 3/8" wide, 1-3/8" long.
 - (iii) Finish: Chain shall be hot dipped galvanized.
 - (iv) Type of construction: 4/0 welded link coil chain.
- (d) Coated Chain:
 - (i) Shall be standard 7/32" diameter steel wire chain with a 1/8" (nominal) thickness of color-impregnated polyvinyl coating with U.V. inhibitors.
- (e) Stainless Steel Chain:
 - (i) Material: 7/32" diameter steel wire.
 - (ii) Dimensions (inside for each link): 3/8" wide, 1-3/8" long.
 - (iii) Type of construction: 4/0 welded link coil chain.
- (f) PrimeTime Swing - Top Rail and Arch:
 - (i) Shall be fabricated of 3-1/2" O.D. (13 Gauge) galvanized steel tubing. Arch includes a welded 3-1/8" O.D. galvanized steel sleeve to which the top rail is fastened.
- (g) Finish:
 - (i) Shall be an electrostatically applied custom formula of TGIC polyester powder with baked finish. Specify color desired.
- (h) PrimeTime Swing Hardware:
 - (i) All nuts, bolts, screws, inserts, and lockwashers used in the assembly of all play equipment, shall be stainless steel, yellow dichromate plated steel, blue-coat plated steel, mechanically galvanized or powder coated/yellow dichromate plated steel. All primary fasteners shall be 300 series stainless steel. Fasteners with yellow dichromate treatment have an electro-deposited, 99.9% pure zinc substrate applied from a specially formulated solution sealed with a yellow dichromate top coat designed to work in conjunction with the zinc plating. Yellow dichromate has a 320% longer life to white corrosion and 275% longer to red corrosion than does hot-

dip galvanizing.

E20.5 Installation:

- (a) Swings shall be installed as per the Canadian Standards Association Guidelines, refer to Clause E9. For foundations refer to Clause E18.
- (b) Installation of swings shall be coordinated with associated site development work. Swings shall be secured and rendered unusable until safety surfacing is in place.
- (c) Swings shall be installed by factory certified installers only and to manufacturer's specifications.

E20.6 Basis of Payment:

- (a) Payment for Work specified under this section shall be paid for at the lump sum price for the "Items of Work" listed below, which price shall include all costs of supply and installation.
- (b) Items of Work:
 - (i) Swings.