



**THE CITY OF WINNIPEG**

# **BID OPPORTUNITY**

**BID OPPORTUNITY NO. 585-2005**

**PARKING LOT REHABILITATION AND WATERPROOFING FOUNDATION WALL  
AT CRESCENTWOOD C.C. – 1170 CORYDON AVENUE**

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## **PART B - BIDDING PROCEDURES**

### **B1. PROJECT TITLE**

- B1.1 PARKING LOT REHABILITATION AND WATERPROOFING FOUNDATION WALL AT CRESCENTWOOD C.C. – 1170 CORYDON AVENUE

### **B2. SUBMISSION DEADLINE**

- B2.1 The Submission Deadline is 12:00 noon Winnipeg time, October 13, 2005.
- B2.2 Bid Submissions determined by the Manager of Materials to have been received later than the Submission Deadline will not be accepted and will be returned upon request.
- B2.3 The Contract Administrator or the Manager of Materials may extend the Submission Deadline by issuing an addendum at any time prior to the time and date specified in B2.1.

### **B3. SITE INVESTIGATION**

- B3.1 Further to GC:3.1, the Contract Administrator or an authorized representative will be available at the Site from 10:00 A.M. to 11:00 A.M. on October 6, 2005 to provide Bidders access to the Site.
- B3.2 The Bidder shall not be entitled to rely on any information or interpretation received at the Site investigation unless that information or interpretation is the Bidder's direct observation, or is provided by the Contract Administrator in writing.

### **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 shortly before submitting his Bid.
- B5.3 The Bidder shall acknowledge receipt of each addendum in Paragraph 7 of Form A: Bid. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.

**B6. SUBSTITUTES**

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

- B6.8 If the Contract Administrator approves a substitute as an “approved alternative”, any Bidder bidding that approved alternative shall base his Total Bid Price upon the specified item but may also indicate an alternative price based upon the approved alternative. Such alternatives will be evaluated in accordance with 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 SUBMISSION**

- B7.1 The Bid Submission consists of the following components:
- (a) Form A: Bid;
  - (b) Form B: Prices;
- B7.2 The Bid Submission shall be submitted enclosed and sealed in an envelope clearly marked with the Bid Opportunity number and the Bidder's name and address.
- B7.2.1 Samples or other components of the Bid Submission which cannot reasonably be enclosed in the envelope may be packaged separately, but shall be clearly marked with the Bid Opportunity number, the Bidder's name and address, and an indication that the contents are part of the Bidder's Bid Submission.
- B7.3 Bid Submissions submitted by facsimile transmission (fax) or internet electronic mail (e-mail) will not be accepted.
- B7.4 Bid Submissions shall be submitted to:
- The City of Winnipeg  
Corporate Finance Department  
Materials Management Branch  
185 King Street, Main Floor  
Winnipeg MB R3B 1J1

## **B8. BID**

- B8.1 The Bidder shall complete Form A: Bid, making all required entries.
- B8.2 Paragraph 2 of Form A: Bid shall be completed in accordance with the following requirements:
- (a) if the Bidder is a sole proprietor carrying on business in his own name, his name shall be inserted;
  - (b) if the Bidder is a partnership, the full name of the partnership shall be inserted;
  - (c) if the Bidder is a corporation, the full name of the corporation shall be inserted;
  - (d) if the Bidder is carrying on business under a name other than his own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.
- B8.2.1 If a Bid is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B8.2.
- B8.3 In Paragraph 3 of Form A: Bid, the Bidder shall identify a contact person who is authorized to represent the Bidder for purposes of the Bid.
- B8.4 Paragraph 9 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 Submission and the Contract, when awarded, shall be both joint and several.

## **B9. PRICES**

B9.1 The Bidder shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.

## **B10. QUALIFICATION**

B10.1 The Bidder shall:

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

B10.2 Further to B10.1(g), the Bidder shall, within three (3) Business Days of a request by the Contract Administrator, provide proof satisfactory to the Contract Administrator that the Bidder has a workplace safety and health program meeting the requirements of The Workplace Safety and Health Act (Manitoba), by providing:

- (a) a valid COR certification number under the Certificate of Recognition (COR) Program - Option 1 administered by the Manitoba Heavy Construction Association's Safety, Health and Environment Program; or
- (b) a valid COR certification number under the Certificate of Recognition (COR) Program administered by the Manitoba Construction Safety Association; or
- (c) a report or letter to that effect from an independent reviewer acceptable to the City. (A list of acceptable reviewers and the review template are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Branch internet site at <http://www.winnipeg.ca/matmgt.>)

B10.3 The Bidder shall be prepared to submit, within three (3) Business Days of a request by the Contract Administrator, proof satisfactory to the Contract Administrator of the qualifications of the Bidder and of any proposed Subcontractor.

B10.4 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 Bid Submissions will be opened publicly, after the Submission Deadline has elapsed, in the office of the Corporate Finance Department, Materials Management Branch, or in such other office as may be designated by the Manager of Materials.

B11.1.1 Bidders or their representatives may attend.

B11.2 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.>

B11.3 The Bidder is advised that any information contained in any Bid Submission may be released if required by City policy or procedures, by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law.

#### **B12. IRREVOCABLE BID**

B12.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 8 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 8 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 GC:23.3, the time and date of receipt of any notice withdrawing a Bid shall be the time and date of receipt as determined by the Manager of Materials.

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 9 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 shall:
- (a) retain the Bid Submission until after the Submission Deadline has elapsed;
  - (b) open the Bid Submission to identify the contact person named in Paragraph 3 of Form A: Bid and the Bidder's authorized representatives named in Paragraph 9 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 Submission is incomplete, obscure or conditional, or contains additions, deletions, alterations or other irregularities. The Award Authority may reject all or any part of any Bid, or waive technical requirements if the interests of the City so require.
- 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 Submission or in other information required to be submitted, that he is responsible and qualified.
- B14.4 The Bidder shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.
- B14.4.1 If there is any discrepancy between the lump sum price written in figures and the lump sum price written in words, the price written in words 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 intends to award this Contract on or before October 21, 2005.
- B15.3 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.
- B15.3.1 Without limiting the generality of B15.3, 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.

- B15.4 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.
- B15.5 Notwithstanding GC:4, the City will issue a Purchase Order to the successful Bidder in lieu of the execution of a Contract.
- B15.6 The Contract, as defined in GC:1.1, 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**

### **C1. GENERAL CONDITIONS**

C1.1 The *General Conditions for Construction Contracts* (Revision 2000 11 09) are applicable to the Work of the Contract.

C1.1.1 The *General Conditions for Construction Contracts* are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Branch internet site at <http://www.winnipeg.ca/matmgt>.

## **PART D - SUPPLEMENTAL CONDITIONS**

### **GENERAL**

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

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

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

- D2.1 The Work to be done under the Contract shall consist of all materials, tools, equipment, labour and supervision required to repair cracks and apply waterproofing membrane with protective drain board system on the existing foundation wall, and the parking lot asphalt pavement rehabilitation as indicated on the construction drawings and as specified herein.
- D2.2 The major components of the Work are as follows:
- (a) Excavation, Backfilling and Site Grading
  - (b) Drainage
  - (c) Concrete Rehabilitation
  - (d) Waterproofing Membrane

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

- D3.1 The Contract Administrator is:
- Lou Chubenko  
Project Officer II  
100 Main Street, Main Floor  
Winnipeg, Manitoba, R3C 1A4  
Telephone No. (204) 986-7278  
Facsimile No. (204) 986-7311
- D3.2 At the pre-construction meeting, the Contract Administrator will identify additional personnel representing the Contract Administrator and their respective roles and responsibilities for the Work.

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

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

## **D5. NOTICES**

- D5.1 Except as provided for in GC:23.2.2, all notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the Contractor shall be sent to the address or facsimile number identified by the Contractor in Paragraph 2 of Form A: Bid.
- D5.2 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the City, except as expressly otherwise required in D5.3, D5.4 or elsewhere in the Contract, shall be sent to the attention of the Contract Administrator at the address or facsimile number identified in D3.1.
- D5.3 All notices of appeal to the Chief Administrative Officer shall be sent to the attention of the Chief Financial Officer at the following address or facsimile number:
- The City of Winnipeg  
Chief Administrative Officer Secretariat  
Administration Building, 3rd Floor  
510 Main Street  
Winnipeg MB R3B 1B9  
Facsimile No.: (204) 949-1174
- D5.4 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications required to be submitted or returned to the City Solicitor shall be sent to the following address or facsimile number:
- The City of Winnipeg  
Corporate Services Department  
Legal Services Division  
185 King Street, 3rd Floor  
Winnipeg MB R3B 1J1  
Facsimile No.: (204) 947-9155

## **SUBMISSIONS**

### **D6. INSURANCE**

- D6.1 The Contractor shall provide and maintain the following insurance coverage:
- (a) commercial general liability insurance, in the amount of at least two million dollars (\$2,000,000.00) all inclusive, with The City of Winnipeg being added as an additional insured, with a cross-liability clause, such liability policy to also contain a contractual liability, an unlicensed motor vehicle liability and a products and completed operations endorsement to remain in place at all times during the performance of the Work and throughout the warranty period;
  - (b) automobile liability insurance for owned and non-owned automobiles used for or in connection with the Work in the amount of at least two million dollars (\$2,000,000.00) at all times during the performance of the Work and until the date of Total Performance;
- D6.2 Deductibles shall be borne by the Contractor.
- D6.3 The Contractor shall provide the City Solicitor with a certificate of insurance of each policy, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than seven (7) Calendar Days from notification of the award of Contract.

D6.4 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.

#### **D7. PERFORMANCE SECURITY**

D7.1 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.

D7.1.1 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.

D7.2 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.

#### **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. SECURITY CLEARANCE**

D9.1 Each individual proposed to perform Work under the Contract shall be required to obtain a Criminal Record Search Certificate from the police service having jurisdiction at his place of residence.

D9.1.1 The Criminal Records Search shall include a Vulnerable Sector Search.

D9.2 Prior to the commencement of any Work, and during the term of the Contract if additional or replacement individuals are proposed to perform Work, the Contractor shall supply the Contract Administrator with a Criminal Record Search Certificate obtained not earlier than one (1) year prior to the Submission Deadline, or a certified true copy thereof, for each individual proposed to perform Work within City facilities or on private property.

D9.3 Any individual for whom a Criminal Record Search Certificate is not provided, or for whom a Criminal Record Search Certificate indicates any convictions or pending charges related to property offences or crimes against another person, will not be permitted to perform any Work within City facilities or on private property.

D9.4 Any Criminal Record Search Certificate obtained thereby will be deemed valid for the duration of the Contract subject to a repeated records search as hereinafter specified.

- D9.5 Notwithstanding the foregoing, at any time during the term of the Contract, the City may, at its sole discretion and acting reasonably, require an updated criminal records search. Any individual who fails to provide a satisfactory Criminal Record Search Certificate as a result of a repeated criminal records search will not be permitted to continue to perform Work under the Contract within City facilities or on private property.

## **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 that the Contractor is in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba;
    - (ii) evidence of the workers compensation coverage specified in GC:6.14;
    - (iii) evidence of the insurance specified in D6;
    - (iv) the performance security specified in D7;
    - (v) the Subcontractor list specified in D8; and
    - (vi) the security clearances specified in D9.
  - (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 thirty (30) 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.
- D11.4 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.
- D11.5 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 forty five (45) 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 one hundred dollars (\$100.00) 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 losses in the event that the Contractor does not achieve Substantial Performance by the day fixed herein for same.
- D13.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

## **CONTROL OF WORK**

### **D14. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)**

- D14.1 Further to GC:6.26, the Contractor shall be the Prime Contractor and shall serve as, and have the duties of the Prime Contractor in accordance with The Workplace Safety and Health Act (Manitoba).

## **WARRANTY**

### **D15. WARRANTY**

- D15.1 Notwithstanding GC:13.2, the warranty period shall begin on the date of Substantial Performance and shall expire one (1) year thereafter unless extended pursuant to GC:13.2.1 or GC:13.2.2, in which case it shall expire when provided for thereunder.
- D15.2 Notwithstanding GC:13.2 or D15.1, the Contract Administrator may permit the warranty period for a portion or portions of the Work to begin prior to the date of Substantial 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
- D15.2.1 In such case, the date specified by the Contract Administrator for the warranty period to begin shall be substituted for the date specified in GC:13.2 for the warranty period to begin.

**FORM H1: PERFORMANCE BOND**  
(See D7)

KNOW ALL MEN BY THESE PRESENTS THAT

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

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

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

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

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

\_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, for:

BID OPPORTUNITY NO. 585-2005

PARKING LOT REHABILITATION AND WATERPROOFING FOUNDATION WALL AT CRESCENTWOOD  
C.C. – 1170 CORYDON AVENUE

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

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

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

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

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

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

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

SIGNED AND SEALED  
in the presence of:

\_\_\_\_\_  
(Witness)

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

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

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

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

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

**FORM H2: IRREVOCABLE STANDBY LETTER OF CREDIT  
(PERFORMANCE SECURITY)**  
(See D7)

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

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

RE: PERFORMANCE SECURITY - BID OPPORTUNITY NO. 585-2005

PARKING LOT REHABILITATION AND WATERPROOFING FOUNDATION WALL AT  
CRESCENTWOOD C.C. – 1170 CORYDON AVENUE

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

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

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

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

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

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

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

Partial drawings are permitted.

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

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

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

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

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

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

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

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

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

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

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

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



## PART E - SPECIFICATIONS

### GENERAL

#### E1. APPLICABLE SPECIFICATIONS, STANDARD DETAILS AND DRAWINGS

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

<u>Drawing No.</u>	<u>Drawing Name/Title</u>
S-1	Existing Site Plan
S-2	Proposed Site Plan / Grading Plan
S-3	Basement Floor Plan, Wall Section & Notes

#### E2. GENERAL SCOPE OF WORK

##### E2.1 SUMMARY

- E2.1.1 Supply all materials, tools, equipment, labour and supervision required to repair cracks and application of a waterproof membrane with drain board system on the existing foundation wall, and the parking lot asphalt pavement rehabilitation as indicated on the construction drawings and as specified herein.

##### E2.2 RELATED WORKS

- E2.2.1 Saw cut and remove existing asphalt paving along existing north foundation wall.
- E2.2.2 Excavate at exterior of existing foundation wall to footing, as indicated on the construction drawing. Remove and dispose of all excavated material.
- E2.2.3 The Contractor shall provide and erect all protective barricades of chain link safety fencing as required in accordance with the requirements of the employment safety regulations under the Workplace Safety and Health Act.
- E2.2.4 Thoroughly clean and prepare exterior faces of existing foundation wall and footing to receive Degussa Building Systems - Sonneborn Gel Patch concrete repair mortar and Degussa Building Systems - Sonoshield HLM 500 waterproofing membrane, or approved equals.
- E2.2.5 Backfill with granular fill material. Granular backfill material shall consist of sound, hard, crushed rock or crushed gravel and shall be free from organic or soft material.
- E2.2.6 All new granular backfill shall be tested for gradation, and test results shall be submitted to the Contract Administrator for approval. All backfill shall be placed and compacted in 150 mm (6 inch) lifts. Granular backfill shall be compacted to 98% standard proctor.
- E2.2.7 During excavation, adjacent property and existing structures including utilities, shall be protected from cave-in or movement by adequate shoring and in accordance with

Province of Manitoba "W210 The Workplace Safety and Health Act" and Guidelines for Excavation Work".

- E2.2.8 Thoroughly clean and prepare interior face of existing foundation wall. Repair all cracks and holes with Degussa Building Systems - Sonneborn Gel Patch concrete repair mortar, or approved equal.
- E2.2.9 Remove existing weeping tile and replace with new 6" diameter, perforated, rigid PVC weeping tile line complete with filter fabric. Slope line to low point and connect to existing non-perforated drain pipe to existing sump pit. Provide sanitary T at inside of foundation wall.
- E2.2.10 Supply and install new 75 mm (3 inch) thick asphalt pavement, graded away from the building foundation. Repair and make good all existing asphalt paving and landscaping after exterior wall repairs are completed.
- E2.2.11 Clean up the site and make good all damage caused by new construction.

### **E3. SURFACE RESTORATIONS**

- E3.1 Further to clause 3.3 of CW 1130-R1, when Total Performance is not achieved in the year the Contract is commenced, the Contractor shall temporarily repair any Work commenced and not completed to the satisfaction of the Contract Administrator. The Contractor shall maintain the temporary repairs in a safe condition as determined by the Contract Administrator until permanent repairs are completed. The Contractor shall bear all costs associated with temporary repairs and their maintenance.

### **E4. EXCAVATION, BACKFILLING AND SITE GRADING**

#### **E4.1 GENERAL**

##### **E4.1.1 Description of Work:**

- (a) This specification covers excavation, trenching, disposal of excess or unsuitable excavated material, shoring, foundations, bedding, backfilling and compaction required for the installation of Underground Works.
- (b) Excavation, bedding and backfill shall be in accordance with the City of Winnipeg Standard Construction Specifications CW 2030-R7.

##### **E4.1.2 Related Works:**

- (a) recording of existing conditions;
- (b) safety barricades;
- (c) environmental protection;
- (d) shoring

##### **E4.1.3 Utility Lines:**

- (a) Before commencing work, establish location and extent of underground utility lines in area of excavation. Notify Contract Administrator of findings.
- (b) Record locations of maintained, re-routed and abandoned underground utility lines.
- (c) Make good and pay for damage to existing utility lines resulting from work.

##### **E4.1.4 Shoring:**

- (a) Provide shoring in accordance with Province of Manitoba "W210 The Workplace Safety and Health Act" and Guidelines for Excavation Work".

- (b) Shoring shall be in accordance with the City of Winnipeg Standard Construction Specifications CW 2030-R7.
- (c) Repair pavements, boulevards, pipes, utilities and structures as directed by the Contract Administrator that are damaged or disturbed by shoring failure or when removing shoring.

E4.1.5 Protection:

- (a) Protect bottoms of excavations from softening. Should softening occur, remove softened soil and replace with compacted Type 2 fill.
- (b) Construct banks in accordance with local by-laws.
- (c) Provide protection to ensure no damage to existing facilities and equipment situated on site.
- (d) Provide approved measures to minimize dust as result of this work.
- (e) Do not stockpile material to interfere with site operation or drainage.

E4.1.6 Compaction Densities:

- (a) Compaction densities are percentages of maximum densities obtainable from ASTM D698.

E4.2 MATERIALS AND EQUIPMENT

E4.2.1 Backfill and Asphaltic Concrete

- (a) Backfill material is to consist of well graded pit-run material conforming to the grading requirements for Type 1 Material shown in Table CW 2030.1.
- (b) Limestone sub-base and base course to conform to the requirements in specification CW 3110.
- (c) Asphaltic concrete to conform to the requirements of specification CW 3410.

E4.2.2 Material Testing Methods

- (a) Standard Proctor Density for materials used for backfill will be determined in accordance with ASTM D698. Field density of materials will be calculated as a percentage of Standard Proctor Density.
- (b) Field density of compacted backfill materials will be verified by field density tests in accordance with ASTM D2922 and ASTM D3017.
- (c) Asphaltic concrete will be tested in accordance with the requirements of specification CW 3410.
- (d) Fill holes made by the removal of testing samples from compacted backfill material promptly with appropriate material and compact to match adjacent compacted material.

E4.2.3 Stockpiling: Stockpile fill materials in areas designated by the Contract Administrator. Stockpile granular materials in manner to prevent segregation.

E4.3 EXECUTION OF WORK

E4.3.1 Perform excavation in accordance with Province of Manitoba "W210 The Workplace Safety and Health Act" and "Guidelines for Excavation Work".

E4.3.2 Excavate to the lines, grades, elevations and dimensions shown on the Drawings and set in the field by the Contract Administrator.

E4.3.3 Remove unsuitable soil from bottom of excavation as directed by the Contract Administrator.

E4.3.4 Remove existing asphalt pavement in accordance with specifications CW 3230, CW 3235 and CW 3240.

E4.3.5 Construct pavement section in accordance with specifications CW 3110 and CW 3410.

#### E4.4 BACKFILLING

E4.4.1 Do not commence backfilling until areas of work to be backfilled have been inspected and approved by the Contract Administrator.

E4.4.2 Areas to be backfilled shall be free from debris, water or frozen ground.

E4.4.3 Place and compact fill materials in continuous horizontal layers not exceeding 150 mm loose depth. Place and compact fill materials so as not to disturb or damage building drainage system and foundation waterproofing. Do not over compact backfill to prevent excessive pressure on foundation wall. Make good any damage.

#### E4.5 FILL TYPES AND COMPACTION

E4.5.1 Exterior side of existing foundation walls: Use Type 1 Material (Table CW 2030.1) to underside of pavement section. Compact to 98% density.

E4.5.2 Under asphalt pavement surfaces use 150 mm of crushed limestone base course. Compact to 100% density. Sub-base to be crushed limestone compacted to 100% density.

#### E4.6 INSPECTION AND TESTING

E4.6.1 Testing of materials and compaction tests shall be carried out by testing laboratory designated by the Contract Administrator. Costs of tests shall be paid by the City of Winnipeg.

E4.6.2 Sieve analysis: Proposed fill materials will be tested to confirm suitability for intended use and conformity with specifications.

E4.6.3 Density test: Tests shall be conducted on compacted fill.

#### E4.7 SURPLUS MATERIAL

E4.7.1 Dispose of surplus material not required for backfill, grading or landscaping, from site as directed.

### E5. DRAINAGE

#### E5.1 GENERAL

E5.1.1 Description of Work:

- (a) Supply and installation of new weeping tile line to match and tie into existing interior drain line and sump pit.

E5.1.2 Related Work

- (a) Excavation
- (b) Backfilling
- (c) Grading
- (d) Shoring

#### E5.2 INSPECTION AND TESTING

E5.2.1 Do not backfill any drain lines or weeping tile until they have been inspected and approved by the Contract Administrator. Open test holes shall be left at high points of drain lines

prior to the commencement of backfilling. The drain system shall be tested by allowing a continuous flow of water from hose outlets to enter the lines at the high point. Drainage flow shall be inspected at the lines discharge or as directed.

E5.2.2 Ensure existing foundation wall damp proofing and insulation have been inspected and accepted.

### E5.3 MATERIALS AND EQUIPMENT

E5.3.1 Materials:

(a) Coarse filter aggregate: to CAN3-A23.1-M77, Table 3, Group 1, 19 mm to 4.75 mm

(b) Fine filter aggregate: to CAN3-A23.1-M77, Table 1

(c) Plastic pipe and fittings: perforated and non-perforated, rigid, non-flexible plastic drain and sewer pipe to CAN/CSA B182.1-M87, 150 mm inside diameter, complete with factory made couplings and fittings

### E5.4 EXECUTION OF WORK

E5.4.1 Install plastic pipe and fittings to CGSB41-GP-29M and as shown on the construction drawings.

E5.4.2 Use adapters as required to connect perforated pipe to non-perforated pipe or other pipe types. Seal joints with joint compound.

E5.4.3 For foundation walls with footings, the drainage tile shall be placed beside the footing.

E5.4.4 For foundation where footings are not utilized, hand excavate to a level not less than 100 mm below the required elevation of the drainage line. Place and compact 100 mm minimum layer of compacted granular fill in trench and lay tile on same so that it is supported by 1/3 of its diameter.

E5.4.5 For all tile installations, fill around sides of weeping tile and hand tap firmly to consolidate around tile. Then place and compact two further 75 mm layers of fill to provide a minimum cover not less than 150 mm at the top and sides of the drain line.

E5.4.6 Pipe shall be laid with perforations down. Such pipe shall be connected with couplings (coupling slots downward). Ensure pipe interior and coupling surfaces are clean before placement.

E5.4.7 The final drainage slope of perforated pipe shall be not less than 3 mm per 300 mm of run.

E5.4.8 Do not use shims. Use fittings recommended by manufacturer.

E5.4.9 Connect pipe to existing sump pit by appropriate adapters manufactured for this purpose.

E5.4.10 Place filter bed after pipe installation is approved by the Contract Administrator. Place minimum of 150 mm thickness coarse filter aggregate on each side of perforated pipe and minimum of 300 mm thickness coarse filter aggregate over perforated pipe.

E5.4.11 Place filter bed in 150 mm lifts. Consolidate by tamping lightly. Prevent displacement of pipe.

E5.4.12 Place top seal of polyurethane or building paper to prevent surface infiltration of fine materials into coarse filter material, thereby blocking groundwater infiltration.

## E6. CONCRETE REPAIR MORTAR

### E6.1 GENERAL

E6.1.1 Description of Work:

- (a) The Contractor shall furnish all materials, tools, equipment, labour and supervision required to repair cracks in the existing concrete foundation wall with concrete repair mortar.

E6.1.2 Related Work:

- (a) Excavation, backfilling and grading
- (b) Drainage
- (c) Waterproofing membrane

E6.2 MATERIALS AND EQUIPMENT

E6.2.1 Concrete Repair Mortar:

- (a) Degussa Building Systems - Sonneborn Sonocrete Gel Patch or an approved equal.

E6.3 EXECUTION OF WORK

E6.3.1 Surface Preparation:

- (a) Surfaces must be clean, sound, free of laitance, standing water, dust, grease, dirt, oil, efflorescence, paint, curing compounds, form oils, and other surface contaminants.
- (b) Mechanically remove all loose materials with chipping hammer, chisel, sandblast, waterblast, or similar methods.
- (c) For proper adhesion, the concrete substrate must have a fractured aggregate profile.
- (d) Clean any exposed steel reinforcement to a white metal finish and prime with a quality anti-corrosion coating.
- (e) Repair areas should have saw-cut straight edges with a minimum of ¼" (6 mm) depth (avoid featheredging).

E6.3.2 Mixing:

- (a) Mix mortar as per manufactures recommendations.

E6.3.3 Application:

- (a) Dampen the surface with clean water; it must be saturated surface-dry (SSD) with no standing water.
- (b) Thoroughly key in and work the material throughout the cavity to promote bond.
- (c) Compact mortar thoroughly to secure bond.
- (d) Apply material lifts of 1/4"-2" (6-51 mm). Avoid featheredging. Thoroughly score each lift and allow it to reach initial set before applying next layer.
- (e) Use bonding agents for larger areas if needed.
- (f) Do not apply mortar below 4 °C or above 32 °C.

E6.3.4 Curing:

- (a) Curing is mandatory. Damp cure for 3 days. If the surface cannot be damp cured, use an appropriate curing compound.
- (b) Protect mortar from freezing for 24 hours after application.

E6.4 MEASUREMENT AND PAYMENT

E6.4.1 Crack repair will be measured on a lump sum basis.

## **E7. WATERPROOFING MEMBRANE**

### **E7.1 GENERAL**

#### **E7.1.1 Description of Work:**

- (a) The Contractor shall furnish all materials, tools, equipment, labour and supervision required to apply a waterproofing membrane system with polypropylene drain boards, on the existing foundation wall.

#### **E7.1.2 Related Work:**

- (a) Excavation, backfilling and grading
- (b) Protective Barricades
- (c) Drainage
- (d) Concrete rehabilitation

#### **E7.1.3 Samples:**

- (a) Submit duplicate 300 mm x 300 mm samples of each type of waterproofing membrane.

#### **E7.1.4 Warranty:**

- (a) Contractor hereby warrants that the waterproofing will remain leak proof for two years.

### **E7.2 PRODUCTS**

#### **E7.2.1 Materials:**

- (a) Degussa Building Systems - Sonoshield HLM 5000 waterproofing membrane system, or an approved equal.
- (b) Degussa Building Systems - Sonoshield DBS 6200 polypropylene drain board system, or an approved equal.

### **E7.3 EXECUTION OF WORK**

#### **E7.3.1 Preparation:**

- (a) All existing membrane curing compounds and waterproofing must be removed.
- (b) Remove dust, dirt and other contaminants just before application. Surface must be dry at the time of application.
- (c) Air-void pockmarks or honeycombs must be opened to allow the membrane to fill the cavities completely; to avoid air entrapment within voids that may cause blisters.
- (d) Before applying the final membrane, all joints, cracks, and openings around protrusions must be sealed by caulking or prestripping (a preliminary coating of the membrane compound, applied with a trowel or stiff-bristled brush). Allow to dry overnight before applying final membrane.
- (e) Static joints and cracks less than 1/16" (1.6 mm) should be filled by prestripping. Apply material so that it both fills and overlaps the joint or crack to a width of 4" (102 mm) on each side.
- (f) All working or expansion joints over 1/8" (3 mm) must be sealed. Any working joint less than 1/8" (3 mm) should be routed to a minimum of 1/8" (3 mm) and filled with sealant.
- (g) Prevent the waterproofing membrane from adhering to the joint sealant, which could cause sealant or membrane failure, by applying a coat of wax or teflon tape over the cured sealant before prestripping.

- (h) Clean all metal surfaces to white metal and prime with a quality anti-corrosion coating.

**E7.3.2 Waterproofing Membrane Application:**

- (a) Apply test application before proceeding with entire application.
- (b) Finnish coat must be applied in a pinhole-free continuous membrane for waterproofing integrity.
- (c) Apply by trowel, roller or spray at the rate recommended by the manufacturer.
- (d) Verify the applied thickness with a wet mil gauge as the work progresses.
- (e) The overall thickness over joints and cracks, at coves, and around penetrations should be approximately 100 wet mils (2.5 mm) on the standard system.
- (f) Protect waterproofing membrane from damage throughout the curing process.

**E7.3.3 Polypropylene Drain Board Installation:**

- (a) Ensure that the waterproofing membrane is undamaged before installing drain board.
- (b) Install Drain Board System (DBS) facing away from the wall so that backfill will be placed against the fabric.
- (c) Use a suitable bonding system such as adhesive, two-sided tape or sealant to hold the board in place. Ensure bonding system is compatible with the membrane.
- (d) Follow manufacturer's recommendations for lapping drainage board panels, ensuring laps are consistent.
- (e) Enclose all ends of the drainage board panels with fabric, and wrap fabric over the top drain board to prevent earth infiltration.
- (f) Ensure all exposed core edges are covered with fabric.
- (g) Protect the installation's finished surface from damage by rocks or debris during construction and backfilling.
- (h) Repair any tears or holes in the fabric by placing new cloth over damaged areas.
- (i) Backfill should be placed as soon as possible after DBS installation.

**E7.4 MEASUREMENT AND PAYMENT**

- E7.4.1** Installation of the waterproof membrane and drain board system will be measured on a lump sum basis.

**E8. PROTECTIVE BARRICADES**

- E8.1** The Contractor shall provide and erect all protective barricades as required for demolition and excavation of asphalt pavement, base, sub-base and fill material along the exterior foundation wall in accordance with the requirements of the employment safety regulations under the Workplace Safety and Health Act, Employment Safety Act and Winnipeg By-Law No. 1481/77 pertaining to erection of barricades for protection.
- E8.2** The Contractor shall also provide additional temporary barricades or rope off temporary construction zones in the parking lot as may be necessary for any dangerous demolition or construction operation in order to keep the public away from the Site. Such temporary barricades shall be removed as soon as possible in order to prevent unnecessary interruption of traffic.
- E8.3** The Contractor shall be responsible for maintaining all protective barricades, including gates, in a good operating condition for the entire period of the demolition and construction to the satisfaction of the Contract Administrator.

## **E9. PARKING LOT REHABILITATION**

### **E9.1 GENERAL**

E9.1.1 This Specification covers reconstruction of an existing asphalt pavement parking lot and shall amend and supplement Specifications CW 3110-R6, CW 3130, CW 3310-R7, CW 3325-R2, CW 3410-R6, CW 3550-R2 and CW 3710-R4.

### **E9.2 MATERIALS**

E9.2.1 Geotextile Fabric: Separation/Reinforcement Geotextile Fabric will be supplied in accordance with CW 3130 and conform to the Products as listed in Specification CW 3710.

E9.2.2 Crushed Sub-Base: Will have a maximum aggregate size of 150 millimetres and be supplied in accordance with Clause 2.1 of CW 3110-R6.

E9.2.3 Base Course: Will be crushed limestone in accordance with Clause 2.2 of CW 3110-R6.

E9.2.4 Asphalt: Asphalt material will be Type 1A and shall be supplied in accordance with Sections 5 and 6 of CW 3410-R5.

E9.2.5 Handicapped Parking Signs: Airmaster RV-13 or equivalent approved by Contract Administrator.

E9.2.6 Parking Stalls Line Painting: The line paint supplied shall be in accordance with CGSB 1-GP-74M+AMDT-MAY-81, alkyd traffic paint. The lines which indicate the stalls shall be painted as per Drawing and/or as directed by the Contract Administrator. Each stall line shall be 75mm wide and 6.1m long. The paint shall be applied evenly at a rate 3m<sup>2</sup>/L by an approved pressure type mobile distributor. All paint marking shall be painted within plus or minus 20mm. The paint colour shall be to CGSB 1-GP-12C+AMDT-DEC-84, white.

### **E9.3 CONSTRUCTION METHODS**

E9.3.1 Demolition will be as per the construction drawings and as directed by the Contract Administrator.

E9.3.2 Excavation will be in accordance with Section 3 of CW 3110-R6 and will include excavation from existing ground elevation to proposed sub-grade elevation. Additional excavation and placement of sub-base material beyond the identified pavement structure will be completed in accordance with CW 3110 and as directed by the Contract Administrator.

E9.3.3 Sub-grade will be prepared in accordance with Clause 3.3 of CW 3110-R6.

E9.3.4 Sub-Base and Base Course will be placed to the compacted thickness as shown on the construction drawings. Sub-Base and Base Course will be in accordance with Clauses 3.3 and 3.4 of CW 3110-R6.

E9.3.5 Asphalt pavement will be placed to the compacted thickness as shown on the construction drawings and in accordance with Specification CW 3410-R5.

E9.3.6 Wood Fencing: Repair or replace existing fence as required to make good.

E9.3.7 Parking Stalls Line Painting:

### **E9.4 MEASUREMENT AND PAYMENT**

E9.4.1 Asphalt Pavement Removal: Removal of existing asphalt pavement will be included in the payment for "Excavation" and no additional payment will be made.

E9.4.2 Excavation: Further to Clause 4.3 of CW 3110-R6, the Contractor will be responsible for providing measurement of quantities including field notes of cross-section surveys, for review by the Contract Administrator.

- E9.4.3 Base Course: Further to Clause 4.6 of CW 3110-R6, the Contractor will be responsible for providing measurement of quantities including field notes of cross-section surveys, for review by the Contract Administrator.
- E9.4.4 Line Painting: Painting will not be measured but will include all line painting and handicap parking stall symbols and will be paid for at the Contract Unit Price per single (1) lump sum item for "Line Painting", in accordance with this specification, and accepted by the Contract Administrator.