



**THE CITY OF WINNIPEG**

# **BID OPPORTUNITY**

**BID OPPORTUNITY NO. 462-2005**

**THIN BITUMINOUS OVERLAY (TBO) PROGRAM, CONCRETE RESTORATIONS  
PROGRAM, ERIN STREET RESURFACING, AND RIVER AVENUE  
REHABILITATION**

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## **PART B - BIDDING PROCEDURES**

### **B1. PROJECT TITLE**

- B1.1 THIN BITUMINOUS OVERLAY (TBO) PROGRAM, CONCRETE RESTORATIONS PROGRAM, ERIN STREET RESURFACING, AND RIVER AVENUE REHABILITATION

### **B2. SUBMISSION DEADLINE**

- B2.1 The Submission Deadline is 12:00 noon Winnipeg time, August 16, 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. ENQUIRIES**

- B3.1 All enquiries shall be directed to the Contract Administrator identified in D3.1.
- B3.2 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.
- B3.3 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.
- B3.4 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.
- B3.5 The Bidder shall not be entitled to rely on any response or interpretation received pursuant to B3 unless that response or interpretation is provided by the Contract Administrator in writing.

### **B4. ADDENDA**

- B4.1 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.
- B4.2 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.
- B4.2.1 Addenda will be available at The City of Winnipeg, Corporate Finance, Materials Management Branch internet site at <http://www.winnipeg.ca/matmgt>.
- B4.2.2 The Bidder is responsible for ensuring that he has received all addenda and is advised to check the Materials Management Branch internet website for addenda shortly before submitting his Bid.
- B4.3 The Bidder shall acknowledge receipt of each addendum in Paragraph 10 of Form A: Bid. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.

## **B5. SUBSTITUTES**

- B5.1 The Work is based on the Plant, Materials and methods specified in the Bid Opportunity.
- B5.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.
- B5.3 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.
- B5.4 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.
- B5.5 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.
- B5.6 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.
- B5.6.1 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.
- B5.7 If the Contract Administrator approves a substitute as an “approved equal”, any Bidder may use the approved equal in place of the specified item.
- B5.8 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.
- B5.9 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.

## **B6. BID SUBMISSION**

- B6.1 The Bid Submission consists of the following components:
- (a) Form A: Bid;
  - (b) Form B: Prices, hard copy;
  - (c) Form G1: Bid Bond and Agreement to Bond, or  
Form G2: Irrevocable Standby Letter of Credit and Undertaking, or  
a certified cheque or draft;
- B6.2 All components of the Bid Submission shall be fully completed or provided, and submitted by the Bidder no later than the Submission Deadline, with all required entries made clearly and completely in ink, to constitute a responsive Bid.
- B6.3 The Bid Submission shall be submitted enclosed and sealed in an envelope. The envelope shall be clearly marked with the Bid Opportunity number and the Bidder's name and address.
- B6.3.1 Samples or other components of the Bid Submission which cannot reasonably be enclosed in the envelope may be packaged separately, but shall be clearly marked with the Bid Opportunity number, the Bidder's name and address, and an indication that the contents are part of the Bidder's Bid Submission.
- B6.3.2 A hard copy of Form B: Prices must be submitted with the Bid Submission. If there is any discrepancy between the Adobe PDF version of Form B: Prices and the Microsoft Excel version of Form B: Prices, the PDF version shall take precedence.
- B6.4 Bid Submissions submitted by facsimile transmission (fax) or internet electronic mail (e-mail) will not be accepted.
- B6.5 Bid Submissions shall be submitted to:
- The City of Winnipeg  
Corporate Finance Department  
Materials Management Branch  
185 King Street, Main Floor  
Winnipeg MB R3B 1J1

## **B7. BID**

- B7.1 The Bidder shall complete Form A: Bid, making all required entries.
- B7.2 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.
- B7.2.1 If a Bid is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B7.2.
- B7.3 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.

- B7.4 Paragraph 12 of Form A: Bid shall be signed in accordance with the following requirements:
- (a) if the Bidder is a sole proprietor carrying on business in his own name, it shall be signed by the Bidder;
  - (b) if the Bidder is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;
  - (c) if the Bidder is a corporation, it shall be signed by its duly authorized officer or officers and the corporate seal, if the corporation has one, shall be affixed;
  - (d) if the Bidder is carrying on business under a name other than his own, it shall be signed by the registered owner of the business name, or by the registered owner's authorized officials if the owner is a partnership or a corporation.
- B7.4.1 The name and official capacity of all individuals signing Form A: Bid shall be printed below such signatures.
- B7.4.2 All signatures shall be original and shall be witnessed except where a corporate seal has been affixed.
- B7.5 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.

## **B8. PRICES**

- B8.1 The Bidder shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.
- B8.1.1 For the convenience of Bidders, and pursuant to B6.3.2 and B14.4.4, an electronic spreadsheet Form B: Prices in Microsoft Excel (.xls) format is available along with the Adobe PDF documents for this Bid Opportunity on the Bid Opportunities page at the Materials Management Branch internet website at <http://www.winnipeg.ca/matmgt>.
- B8.2 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.
- B8.3 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.
- B8.4 Form B: Prices is organized into Parts: Part A of the Work, Part B of the Work, Part C of the Work, and Part D of the Work. Bidders shall provide a total price for each Part and, on the summary sheet, a Total Bid Price consisting of the sum of prices for Part A through D.

## **B9. QUALIFICATION**

- B9.1 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; and

- (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);
- B9.2 Further to B9.1(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>.)
- B9.3 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.
- B9.4 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.
- B10. BID SECURITY**
- B10.1 The Bidder shall provide bid security in the form of:
- (a) a bid bond, in the amount of at least ten percent (10%) of the Total Bid Price, and agreement to bond of a company registered to conduct the business of a surety in Manitoba, in the form included in the Bid Submission (Form G1: Bid Bond and Agreement to Bond); or
  - (b) an irrevocable standby letter of credit, in the amount of at least ten percent (10%) of the Total Bid Price, and undertaking issued by a bank or other financial institution registered to conduct business in Manitoba and drawn on a branch located in Winnipeg, in the form included in the Bid Submission (Form G2: Irrevocable Standby Letter of Credit and Undertaking); or
  - (c) a certified cheque or draft payable to "The City of Winnipeg", in the amount of at least fifty percent (50%) of the Total Bid Price, drawn on a bank or other financial institution registered to conduct business in Manitoba.
- B10.1.1 If the Bidder submits alternative bids, the bid security shall be in the amount of the specified percentage of the highest Total Bid Price submitted.

B10.2 The bid security of the successful Bidder and the next two lowest evaluated responsive and responsible Bidders will be released by the City when a Contract for the Work has been duly executed by the successful Bidder and the performance security furnished as provided herein. The bid securities of all other Bidders will be released when a Contract is awarded.

B10.2.1 Where the bid security provided by the successful Bidder is in the form of a certified cheque or draft pursuant to B10.1(c), it will be deposited and retained by the City as the performance security and no further submission is required.

B10.2.2 The City will not pay any interest on certified cheques or drafts furnished as bid security or subsequently retained as performance security.

B10.3 The bid securities of all Bidders will be released by the City as soon as practicable following notification by the Contract Administrator to the Bidders that no award of Contract will be made pursuant to the Bid Opportunity.

## **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.

B11.1.2 Bid Submissions determined by the Manager of Materials, or his designate, to not include the bid security specified in B10 will not be read out.

B11.2 After the public opening, the names of the Bidders and their Total Bid Prices as read out (unevaluated, and pending review and verification of conformance with requirements) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Branch internet site at <http://www.winnipeg.ca/matmgt>.

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 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 11 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 until a Contract for the Work has been duly executed and the performance security furnished as herein provided, but any Bid shall be deemed to have lapsed unless accepted within the time period specified in Paragraph 11 of Form A: Bid.

## **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 12 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 12 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, including the right to retain the Bidder's bid security.

#### **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 B9 (pass/fail);
  - (c) Total Bid Price;
  - (d) economic analysis of any approved alternative pursuant to B5.
- 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.
- B14.2.1 Any bid with an apparent imbalance between the unit prices in Part A through D may be determined to be non-responsive and rejected by the Award Authority in its sole discretion, acting reasonably.
- 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 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 adjusted, if necessary, as follows:
- B14.4.1 if the lowest evaluated responsive Bid submitted by a responsible and qualified Bidder is within the budgetary provision for the Work, no adjustment will be made to the Total Bid Price; or
  - B14.4.2 if the lowest evaluated responsive Bid submitted by a responsible and qualified Bidder exceeds the budgetary provision for the Work, the Total Bid Prices of all responsive Bids submitted by responsible and qualified Bidders will be adjusted by progressively deducting

Part B firstly, then Part A if necessary until a Total Bid Price within the budgetary provision is achieved.

B14.4.3 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.

B14.4.4 The electronic Form B: Prices and the formulas imbedded in that spreadsheet are only provided for the convenience of Bidders. The City makes no representations or warranties as to the correctness of the imbedded formulas. It is the Bidder's responsibility to ensure the extensions of the unit prices and the sum of Total Bid Price performed as a function of the formulas within the electronic Form B: Prices are correct.

## **B15. AWARD OF CONTRACT**

B15.1 The City will give notice of the award of the Contract by way of a letter of intent, or will give notice that no award will be made.

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 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.

B15.4 As noted in D2 and identified in Form B: Prices, the Work of Part A and/or B will be contingent upon sufficient funding for the Work. If sufficient funding for Part A and/or B is not available, the City shall have the right to eliminate all of Part A and/or B in accordance with D2.

## **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.
- C1.2 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 four Parts:
- (a) Part A: Thin Bituminous Overlay (TBO) Program
    - (i) Valour Road from Ellice Ave to Sargent Ave (including Ellice Avenue Intersection planing and overlay)
    - (ii) Collegiate Street from Portage Avenue to Ness Avenue
    - (iii) Gateway Road from McLeod Avenue to Budden Drive
    - (iv) Ragsdill Road from Gateway Road to John Huyda Drive
    - (v) Dufferin Avenue from Powers Street to Salter Street
    - (vi) Whytewold Road from Bruce Avenue to Lodge Avenue
  - (b) Part B: Concrete Restorations
    - (i) Moray Street from Murray Park Road to Saulteaux Crescent (north leg)
    - (ii) Murray Park Road (westbound only) from Moray Street to Cree Crescent (west leg)
    - (iii) Burrows Avenue from King Edward Street to Keewatin Street
    - (iv) Burrows Avenue from Benbow Road to Inkster Boulevard
  - (c) Part C: Regional Street Renewal – Erin Street Resurfacing
    - (i) Erin Street from Portage Avenue to Wolever Avenue
  - (d) Part D: Regional Street Renewal – River Avenue Rehabilitation
    - (i) River Avenue from Gerard Street to Osborne Street
- D2.2 Bidders are advised that the funding in the Capital Budget for Part A and B of the Work is under review, and is anticipating receiving final notification about funding by early August, 2005. Part A and B of the Work is contingent upon sufficient funding being available.
- D2.2.1 Further to GC:7.1, if notice of sufficient funding is not received, the City shall have the right to eliminate all of Part A and/or B, and the Contract Price will be reduced accordingly.

- D2.2.2 Further to GC:7.5, GC:7.5.1, and GC:7.6, a reduction in the Contract Price pursuant to D2.2.1 shall not be considered in calculating the aggregate reduction in the Contract Price for purposes of GC:7.5.
- D2.2.3 If all of Part A and/or B is eliminated pursuant to D2.2.1, the time periods stipulated in D17 for Substantial Performance of the Work and in D18 for Total Performance of the Work will be reduced proportionally by the Contract Administrator acting reasonably.
- D2.3 The major components of the Work are as follows:
- (a) Part A: Thin Bituminous Overlay (TBO) Program
    - (i) Planing of existing asphalt and/or concrete pavement for tie-ins
    - (ii) Full depth concrete repairs of existing slabs and joints
    - (iii) Adjustment of drainage inlets, water valves, manholes and catchbasins
    - (iv) Curb repairs
    - (v) Sidewalk repairs
    - (vi) Joint and crack filling
    - (vii) Boulevard restoration
    - (viii) Placement of asphalt overlay (average thickness – 50 to 60 mm)
  - (b) Part B: Concrete Restorations
    - (i) Full depth concrete repairs of existing slabs and joints
    - (ii) Minimal concrete repairs around drainage inlets
    - (iii) Curb repairs
    - (iv) Sidewalk repairs
    - (v) Boulevard restoration
  - (c) Part C: Regional Street Renewal – Erin Street Resurfacing
    - (i) Planing of existing asphalt overlay
    - (ii) Full depth concrete repairs of existing slabs and joints
    - (iii) Adjustment of drainage inlets, water valves, manholes and catchbasins
    - (iv) Curb repairs
    - (v) Sidewalk repairs
    - (vi) Joint and crack filling
    - (vii) Boulevard restoration
    - (viii) Placement of asphalt overlay (average thickness – 85 mm)
  - (d) Part D: Regional Street Renewal – River Avenue Rehabilitation
    - (i) Planing of existing asphalt overlay
    - (ii) Full depth concrete repairs of existing slabs and joints
    - (iii) Base Course placement and new slab placement
    - (iv) Adjustment of drainage inlets, water valves, manholes and catchbasins
    - (v) New catchbasin installation
    - (vi) Curb and sidewalk removal and replacement
    - (vii) Paving stone adjustment and installation
    - (viii) Placement of asphalt overlay (average thickness – 70 - 75 mm)

**D3. CONTRACT ADMINISTRATOR**

D3.1 The Contract Administrator is Dillon Consulting Limited, represented by:

David Wiebe, P.Eng.  
Project Manager  
200 – 895 Waverley Street  
Winnipeg, MB R3T 5P4

Telephone No. (204) 453-2301  
Facsimile No. (204) 452-4412

D3.2 At the pre-construction meeting, David Wiebe, P.Eng. 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.

D4.2 At least two (2) business days prior to the commencement of any Work on the site, the Contractor shall provide the Contract Administrator with a phone number where the supervisor identified in D4.1 or an alternate can be contacted 24 hours a day to respond to an emergency.

**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

## **D6. FURNISHING OF DOCUMENTS**

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

## **SUBMISSIONS**

### **D7. SAFE WORK PLAN**

- D7.1 The Contractor shall provide the Contract Administrator with a Safe Work Plan at least five (5) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in GC:4.1 for the return of the executed Contract.
- D7.2 The Safe Work Plan shall be prepared and submitted in the format shown in the City's template which is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Branch internet site at <http://www.winnipeg.ca/matmgt>.

### **D8. INSURANCE**

- D8.1 The Contractor shall provide and maintain the following insurance coverage:
- (a) commercial general liability insurance, in the amount of at least two million dollars (\$2,000,000.00) all inclusive, with The City of Winnipeg being named 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 completed operations endorsement to remain in place at all times during the performance of the Work and throughout the warranty period;
  - (b) automobile liability insurance for owned and non-owned automobiles used for or in connection with the Work in the amount of at least two million dollars (\$2,000,000.00) at all times during the performance of the Work and until the date of Total Performance;
- D8.2 Deductibles shall be borne by the Contractor.
- D8.3 The Contractor shall provide the City Solicitor with a certificate of insurance of each policy, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in the GC:4.1 for the return of the executed Contract.
- D8.4 The Contractor shall not cancel, materially alter, or cause each policy to lapse without providing at least fifteen (15) Calendar Days prior written notice to the Contract Administrator.

### **D9. PERFORMANCE SECURITY**

- D9.1 The Contractor shall provide and maintain performance security until the expiration of the warranty period in the form of:
- (a) a performance bond of a company registered to conduct the business of a surety in Manitoba, in the form attached to these Supplemental Conditions (Form H1: Performance Bond), in the amount of fifty percent (50%) of the Contract Price; or
  - (b) an irrevocable standby letter of credit issued by a bank or other financial institution registered to conduct business in Manitoba and drawn on a branch located in Winnipeg, in the form attached to these Supplemental Conditions (Form H2: Irrevocable Standby Letter of Credit), in the amount of fifty percent (50%) of the Contract Price; or

- (c) a certified cheque or draft payable to "The City of Winnipeg", drawn on a bank or other financial institution registered to conduct business in Manitoba, in the amount of fifty percent (50%) of the Contract Price.

D9.1.1 Where the performance security is in the form of a certified cheque or draft, it will be deposited by the City. The City will not pay any interest on certified cheques or drafts furnished as performance security.

D9.2 If the bid security provided in his Bid Submission was not a certified cheque or draft pursuant to B10.1(c), the Contractor shall provide the City Solicitor with the required performance security within seven (7) Calendar Days of notification of the award of the Contract by way of letter of intent and prior to the commencement of any Work on the Site and in no event later than the date specified in the GC:4.1 for the return of the executed Contract.

## **D10. SUBCONTRACTOR LIST**

D10.1 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 or prior to a pre-construction meeting, or 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 the GC:4.1 for the return of the executed Contract.

## **D11. DETAILED WORK SCHEDULE**

D11.1 The Contractor shall provide the Contract Administrator with a detailed work schedule (Form L: 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 the General Conditions for the return of the executed Contract.

D11.2 If, prior to submitting the Detailed Work Schedule, the Contractor does not receive notification pursuant to D12.3 that all of Part A and B of the Work may be commenced, he shall complete Form L: Detailed Work Schedule for only Part C and D of the Work assuming that, if all of Part A and B is eliminated, the time periods stipulated in D17 for Substantial Performance of the Work and in D18 for Total Performance of the Work will be reduced by thirty (30) Working Days

D11.3 If, after submitting the Detailed Work Schedule, the Contractor receives notification that all or any portion of Part A and B of the Work may be commenced, he shall submit a revised Detailed Work Schedule no later than two (2) Business Days from receipt of the notification.

## **SCHEDULE OF WORK**

### **D12. COMMENCEMENT**

D12.1 The Contractor shall not commence any Work until he is in receipt of a letter of intent from the Award Authority authorizing the commencement of the Work.

D12.2 The Contractor shall not commence any Work on the Site until:

- (a) the Contract Administrator has confirmed receipt and approval of:
  - (i) evidence that the Contractor is in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba;
  - (ii) evidence of the workers compensation coverage specified in GC:6.14;
  - (iii) the twenty-four (24) hour emergency response phone number specified in D4.2.

- (iv) the Safe Work Plan specified in D7;
  - (v) evidence of the insurance specified in D8;
  - (vi) the performance security specified in D9;
  - (vii) the subcontractor list specified in D10; and
  - (viii) the detailed work schedule specified in D11.
- (b) the Contractor has attended a pre-construction meeting with the Contract Administrator, or the Contract Administrator has waived the requirement for a pre-construction meeting.

D12.3 The Contractor shall not commence Part A and B of the Work as described in D2 and identified in Form B: Prices, unless he has received notification from the Contract Administrator that the City has sufficient funding for these portions of the Work.

D12.4 The Contractor shall commence the Work on Part C and D within seven (7) Working Days of receipt of the letter of intent.

### **D13. WORKING DAYS**

D13.1 Further to GC:1.1(gg);

D13.1.1 The Contract Administrator will determine daily if a Working Day has elapsed and will record his assessment. On a weekly basis the Contract Administrator will provide the Contractor with a record of the Working Days assessed for the preceding week. The Contractor shall sign each report signifying that he agrees with the Contract Administrator's determination of the Working Days assessed for the report period.

D13.1.2 Work done to restore the Site to a condition suitable for Work, shall not be considered "work" as defined in the definition of a Working Day.

D13.1.3 When the Work includes two or more major types of Work that can be performed under different atmospheric conditions, the Contract Administrator shall consider all major types of Work in determining whether the Contractor was able to work in assessing Working Days.

### **D14. RESTRICTED WORK HOURS**

D14.1 Further to clause 3.10 of CW 1130, the Contractor shall require written permission 48 hours in advance from the Contract Administrator for any work to be performed between 2000 hours and 0700 hours, or on Saturdays, Sundays, Statutory Holidays and or Civic Holidays.

### **D15. WORK BY OTHERS**

D15.1 Work by others on or near the Site will include but not necessarily be limited to:

- (a) City of Winnipeg Traffic Signals – Underground traffic loop replacement as necessary at intersections on Valour Road, Gateway Road, Dufferin Avenue, Erin Street, and River Avenue. Pavement rehabilitation, and boulevard restoration must be co-ordinated with Traffic Signals so that their appurtenances can be installed. Preformed loop leads must be protected during pavement rehabilitation until they can be run to their final location. Traffic signal pole relocations in Part D.
- (b) MTS – Miscellaneous adjustments to manholes or other appurtenances may be required on any of the streets in Part A, C, or D. These adjustments should be co-ordinated with the adjustments of drainage inlets and manholes performed by the Contractor.
- (c) Manitoba Hydro – Miscellaneous adjustments to manholes or other appurtenances may be required on any of the streets in Part A, C, or D. These adjustments should be co-

ordinated with the adjustment of the drainage inlets and manholes performed by the Contractor. Light standard relocations in Part D.

## **D16. SEQUENCE OF WORK**

D16.1 Further to GC 6.1, the sequence of work shall comply with the following:

D16.1.1 Providing that the Work on each street is completed in a similar order to the order that the Work was commenced in, the Contractor will be permitted to have a maximum of three (3) streets in Part A, C and D combined, plus two (2) streets in Part B under construction at any one time. This results in a total of five (5) streets under construction. Completion of a street means that all of the necessary concrete, asphalt including approaches and landscaping Work is completed to the satisfaction of the Contract Administrator.

D16.1.2 Part C and Part D shall commence immediately, along with one street listed in Part A.

D16.1.3 Where the Contractor utilizes two (2) or more crews that work independently on the same major component of the Work as identified in D2, the Contract Administrator may approve an increase to the maximum number of streets under construction at any time.

D16.1.4 It should be noted that more than one concrete crew may be required at any one time to complete the project works within the allotted number of Working Days

D16.1.5 The order of construction within each Part of the Work shall be as follows. This provides for localization of the work within a few neighbourhoods at any one time.

(a) Part A: Thin Bituminous Overlay (TBO) Program

- (i) (i) Valour Road
- (ii) (ii) Collegiate Street
- (iii) (iii) Dufferin Ave
- (iv) (iv) Whytefold Road
- (v) (v) Ragsdill Road
- (vi) (vi) Gateway Road

(b) Part B: Concrete Restorations

- (i) (i) Burrows Avenue (King Edward to Keewatin)
- (ii) (ii) Burrows Avenue (Benbow to Inkster)
- (iii) (iii) Moray Street
- (iv) (iv) Murray Park Road (westbound only)

(c) Part C: Regional Street Renewal – Erin Street Resurfacing

- (i) Erin Street (construction to start immediately along with Part D and one street in Part A)

(d) Part D: Regional Street Renewal – River Avenue Rehabilitation

- (i) River Avenue (construction to start immediately along with Part C and one street in Part A)

D16.1.6 The following streets have schools. Construction must be completed prior to the beginning of the school year, September 7, 2005.

(a) Burrows Ave – from Benbow Road to Inkster Boulevard

## **D17. SUBSTANTIAL PERFORMANCE**

D17.1 The Contractor shall achieve Substantial Performance within forty five (45) consecutive Working Days of the commencement of the Work as specified in D12.

D17.2 When the Contractor considers the Work to be substantially performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Substantial Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be re-inspected.

D17.3 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.

#### **D18. TOTAL PERFORMANCE**

D18.1 The Contractor shall achieve Total Performance within fifty (50) consecutive Working Days of the commencement of the Work as specified in D12.

D18.2 When the Contractor or the Contract Administrator considers the Work to be totally performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Total Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be re-inspected.

D18.3 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.

#### **D19. LIQUIDATED DAMAGES**

D19.1 If the Contractor fails to achieve Total Performance in accordance with the Contract by the day fixed herein for Total Performance, the Contractor shall pay the City one thousand one hundred dollars (\$1100.00) per Working Day for each and every Working Day following the day fixed herein for Total Performance during which such failure continues.

D19.2 The amount specified for liquidated damages in D19.1 is based on a genuine pre-estimate of the City's losses in the event that the Contractor does not achieve Total Performance by the day fixed herein for same.

D19.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

#### **D20. SCHEDULED MAINTENANCE**

D20.1 The Contractor shall perform the following scheduled maintenance in the manner and within the time periods required by the Specifications:

- (a) Reflective Crack Maintenance (during one year warranty period) as specified in CW 3520 for Part C and D;
- (b) Sodding (maintenance period) as specified in CW 3510 for Part A, B, and C.;
- (c) Seeding (maintenance period) as specified in CW 3520 for Part A, B, and C..

D20.2 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**

### **D21. JOB MEETINGS**

- D21.1 Regular weekly job meetings will be held at one of the project locations as called by the Contract Administrator. 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.
- D21.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he deems it necessary.

### **D22. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)**

- D22.1 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**

### **D23. WARRANTY**

- D23.1 Notwithstanding GC:13.2, the warranty period shall begin on the date of Total 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.
- D23.2 Notwithstanding GC:13.2 [or D23.1,] 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.
- D23.2.1 In such case the date specified by the Contract Administrator for the warranty period to begin shall be substituted for the date specified in GC:13.2 for the warranty period to begin.

**FORM H1: PERFORMANCE BOND**  
(See D9)

KNOW ALL MEN BY THESE PRESENTS THAT

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

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

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

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

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

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

BID OPPORTUNITY NO. 462-2005

THIN BITUMINOUS OVERLAY (TBO) PROGRAM, CONCRETE RESTORATIONS PROGRAM, ERIN STREET RESURFACING, AND RIVER AVENUE REHABILITATION 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)



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)



**FORM L: DETAILED WORK SCHEDULE**  
 (See D11)

**THIN BITUMINOUS OVERLAY (TBO) PROGRAM, CONCRETE RESTORATIONS PROGRAM, ERIN STREET RESURFACING, AND RIVER AVENUE REHABILITATION**

For each item of Work, indicate the cumulative percentage proposed to be completed by the end of each time period until 100% completion is achieved.						
Items of Work	Time Period in Working Days					
	10	20	30	40	45	50
<b><u>Part A: Thin Bituminous Overlay (TBO) Program</u></b>						
Valour Rd – from Ellice Ave to Sargent Ave						
Collegiate St – from Portage Ave to Ness Ave						
Dufferin Ave – from Powers St to Salter St						
Whytefold Rd – from Bruce Ave to Lodge Ave						
Ragsdill Rd – from Gateway Rd to John Huyda Dr						
Gateway Rd – from McLeod Ave to Budden Dr						
<b><u>Part B: Concrete Restorations</u></b>						
Burrows Ave – from King Edward St to Keewatin St						
Burrows Ave – from Benbow Rd to Saulteaux Cr						
Moray St – from Murray Park Rd to Saulteaux Cr						
Murray Park Rd (WB) – from Moray St to Cree Cr						
<b><u>Part C: Regional Street Renewal – Erin Street</u></b>						
Erin St – from Portage Ave to Wolever Ave						
<b><u>Part D: Regional Street Renewal – River Avenue</u></b>						
River Avenue – from Gerard St to Osborne St						

## 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>	<u>Drawing (Original) Sheet Size</u>
P-3263-01	Part A: 2005 T.B.O. Program Gateway Road Whytefold Road Ragsdill Road Valour Road Collegiate Street Dufferin Avenue	11" x 17"
P-3263-02	Part B: Concrete Restorations Burrows Avenue Burrows Avenue Moray Street Murray Park Road (W/B)	11" x 17"
P-3263-03	Part C: Erin Street Resurfacing Portage Ave. to Wolever Ave. Portage Ave. to Sta. 0+250.0	A1
P-3263-04	Part C: Erin Street Resurfacing Portage Ave. to Wolever Ave. Sta. 0+250.0 to Sta. 0+375.0	A1
P-3263-05	Part C: Erin Street Resurfacing Portage Ave. to Wolever Ave. Sta. 0+375.0 to Wolever Ave.	A1
P-3263-06	Part D: River Avenue Rehabilitation Gerard St. to Osborne St.	A1

#### E2. PROTECTION OF EXISTING TREES

E2.1 The Contractor shall take the following precautionary steps to prevent damage from construction activities to existing boulevard trees within the limits of the construction area:

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

- (b) Trees identified to be at risk by the Contract Administrator are to be strapped with 25 x 100 x 2400mm wood planks, or suitably protected as approved by the Contract Administrator.
- (c) Excavation shall be performed in a manner that minimizes damage to the existing root systems. Where possible, excavation shall be carried out such that the edge of the excavation shall be a minimum of 1.5 times the diameter (measured in inches), with the outcome read in feet, from the closest edge of the trunk. Where roots must be cut to facilitate excavation, they shall be pruned neatly at the face of excavation.
- (d) Operation of equipment within the dripline of the trees shall be kept to the minimum required to perform the work required. Equipment shall not be parked, repaired, refuelled; construction materials shall not be stored, and earth materials shall not be stockpiled within the driplines of trees. The dripline of a tree shall be considered to be the ground surface directly beneath the tips of its outermost branches. The Contractor shall ensure that the operations do not cause flooding or sediment deposition on areas where trees are located.
- (e) Work on-site shall be carried out in such a manner so as to minimize damage to existing tree branches. Where damage to branches does occur, they shall be neatly pruned.

E2.2 All damage to existing trees caused by the Contractor's activities shall be repaired to the requirements and satisfaction of the Contract Administrator and the City Forester or his designate.

E2.3 No separate measurement or payment will be made for the protection of trees.

E2.4 Elm trees cannot be trimmed between April 1 and July 31, inclusive.

### **E3. TRAFFIC CONTROL**

E3.1 Further to clauses 3.6 and 3.7 of CW 1130-R1:

- (a) Where directed, the Contractor shall construct and maintain temporary asphalt ramps to alleviate vertical pavement obstructions such as manholes and planing drop-offs to the satisfaction of the Contract Administrator. No measurement for payment will be made for this work.
- (b) In accordance with the Manual of Temporary Traffic Control, the Contractor ("Agency" in the manual) shall make arrangements with the Traffic Services Section of the City of Winnipeg to place all temporary regulatory signs. The Contractor shall bear all costs associated with the placement of temporary traffic control devices by the Traffic Services Section of the City of Winnipeg in connection with the works undertaken by the Contractor.

### **E4. TRAFFIC MANAGEMENT**

E4.1 Further to clause 3.7 of CW 1130-R1:

E4.1.1 The Contractor shall schedule construction activities to meet the following:

- (a) Part A: Thin Bituminous Overlay (TBO) Program:
  - (i) Valour Road: will be closed to through traffic. Valour Road is a bus route. Local access and bus traffic shall be maintained. The Contractor shall sign the street "Road Closed Local Access Only" in accordance with the Manual of Temporary Traffic Control. East/West traffic at Valour Rd and Ellice Ave intersection must be maintained during construction to allow for a minimum of one lane of traffic in each direction. When no work is being performed in the intersection and providing it is safe for vehicles, east and west lane closures in the intersection will not be permitted.

- (ii) Collegiate Street: will be closed to through traffic. Local access traffic shall be maintained. The Contractor shall sign the street "Road Closed Local Access Only" in accordance with the Manual of Temporary Traffic Control.
  - (iii) Dufferin Avenue: Maintain at least one lane of traffic in each direction at all times. Dufferin Avenue is a bus route. Local access and bus traffic shall be maintained. Where an existing left turn lane exists, one lane shall be maintained for through traffic and another lane maintained to turn left.
  - (iv) Whyteford Road: will be closed to through traffic. Whyteford Road is a bus route. Local access and bus traffic shall be maintained. The Contractor shall sign the street "Road Closed Local Access Only" in accordance with the Manual of Temporary Traffic Control. At least one intersection on adjacent bays shall be open at a time.
  - (v) Ragsdill Road: will be closed to through traffic. Ragsdill Road is a bus route. Local access and bus traffic shall be maintained. The Contractor shall sign the street "Road Closed Local Access Only" in accordance with the Manual of Temporary Traffic Control. At least one intersection on adjacent bays shall be open at a time.
  - (vi) Gateway Road: will be signed for one way traffic in the southbound direction only. Traffic Services will provide the regulatory signs for the "One Way" signing. Local access shall be maintained for southbound traffic. The Contractor shall sign the street "Road Closed Local Access Only" for the southbound direction, and "Road Closed" for the northbound direction in accordance with the Manual of Temporary Traffic Control.
- (b) Part B: Concrete Restorations:
- (i) Burrows Avenue (King Edward St to Keewatin St): at least one lane shall be maintained along this street during construction. Burrows Ave is a bus route. Local access and bus traffic shall be maintained. At least one intersection on adjacent bays shall be open at a time.
  - (ii) Burrows Avenue (Benbow Rd to Saulteaux Cr): Burrows Ave is a bus route. Local access and bus traffic shall be maintained. At least one intersection on adjacent bays shall be open at a time. The Contractor shall sign the street "Road Closed Local Access Only" in accordance with the Manual of Temporary Traffic Control.
  - (iii) Moray Street: Moray Street is a bus route. Local access and bus traffic shall be maintained. At least one intersection on adjacent bays shall be open at a time. Intersecting street and private approach access shall be maintained at all times. The Contractor shall sign the street "Road Closed Local Access Only" in accordance with the Manual of Temporary Traffic Control.
  - (iv) Murray Park Road (westbound only): Murray Park Road is a bus route. Local access and bus traffic shall be maintained. Intersecting street and private approach access shall be maintained at all times. The Contractor shall sign the street "Road Closed Local Access Only" in accordance with the Manual of Temporary Traffic Control.
- (c) Part C: Regional Street Renewal – Erin Street Resurfacing
- (i) At least two travelling lanes shall be maintained for traffic from 0700 hours to 0900 hours, and 1530 hours to 1730 hours on weekdays. At all other times only one travelling lane can be maintained for traffic. Bus traffic shall be maintained during construction. Intersecting street private approach access shall be maintained at all times.
  - (ii) Asphalt Paving: Only one lane of traffic shall be maintained to facilitate a crown in the centre lane.

(iii) Planing: Traffic lanes must not be reopened to traffic after being planed unless damaged joints, cracks, and vertical/horizontal pavement breaks have been temporarily patched at the Contractor's expense, or work in the lane is complete and an asphalt scratch coat has been placed. If temporary pavement repairs have been made to open a lane, the Contractor is responsible at his own expense to maintain the temporary repairs in a condition acceptable to the Contract Administrator until the lane is closed again for construction.

(d) Part D: Regional Street Renewal – River Avenue Rehabilitation

(i) River Avenue is a bus route. Bus traffic shall be maintained. Intersecting street and private approach access shall be maintained at all times.

(ii) Contractor to close north side lane first and perform all work on north side lane, curb, sidewalk, and NW island in River and Osborne intersection. Yield lane may be closed completely to traffic. River Avenue traffic to be maintained in south side lane. Both southbound through traffic lanes on Osborne Street to be maintained during construction. The bus lane/temporary right turn lane adjacent to the NW island may be closed during construction.

(iii) Following completion of all work in the north side area except asphalt overlay, south side lane to be closed for construction and north side and yield lane opened to traffic.

(iv) Following completion of all concrete and paving stone works, header planning and asphalt overlay to commence. One lane of traffic to be maintained on River Avenue during asphalt overlay.

E4.1.2 Should the Contractor be unable to maintain an existing access to a residence or business, he shall review the planned disruption with the business or residence and the Contract Administrator, and take reasonable measures to minimize the impact. The Contractor shall provide a minimum of 24 hours notification to the affected residence or business and the Contract Administrator, prior to disruption of access.

E4.1.3 Pedestrian and ambulance/emergency vehicle access must be maintained at all times. Maintain a minimum of one lane of traffic eastbound (Phase I) and one lane of traffic westbound (Phase II) during their respective construction times;

## **E5. WATER USED BY CONTRACTOR**

E5.1 Further to clause 3.7 of CW 1120-R1, the Contractor shall pay for all costs associated with obtaining water in accordance with the Waterworks By-law. Sewer charges will not be assessed for water obtained from a hydrant.

## **E6. SURFACE RESTORATIONS**

E6.1 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.

## **E7. INFRASTRUCTURE SIGNS**

E7.1 One Infrastructure Sign is required for Part C: Regional Street Renewal – Erin Street Resurfacing. The Contractor shall obtain the infrastructure sign from the Traffic Services Sign Shop at 421 Osborne Street. The Contractor shall mount the sign securely to a rigid backing material approved by the Contract Administrator. The Contractor shall fasten the sign to a

suitable support and erect and maintain the sign as directed by the Contract Administrator. When the Contract Administrator considers the Work on the street complete, the Contractor shall remove and dispose of the signs and supports. No measurement for payment will be made for performing all operations herein described and all other items incidental to the work described

**E8. RECYCLED CONCRETE BASE COURSE MATERIAL**

DESCRIPTION

E8.1 General

E8.1.1 Further to CW 3110, this specification covers supply and placement of recycled concrete base course material for Full-Depth Partial Slab Patches (Class A, B, C, & D), miscellaneous concrete slabs and sidewalks.

E8.1.2 Referenced Standard Construction Specifications

- (a) CW 3110 – Sub-Grade. Sub-Base and Base Course Construction.
- (b) CW 3230 – Full-Depth Patching of Existing Pavement Slabs and Joints.
- (c) CW 3235 – Renewal of Existing Miscellaneous Concrete Slabs.
- (d) CW 3325 – Portland Cement Concrete Sidewalk.

E8.2 Definitions

E8.2.1 Deleterious material – are materials such as vegetation, organic material, wood, glass, plastic, metal, reinforcing steel, building rubble, brick, salvaged asphalt materials, clay, shale, and friable particles.

MATERIALS

E8.3 Recycled Concrete Base Course Material

E8.3.1 Recycled concrete base course material when used for Full-Depth Partial Slab Patches (Class A, B, C, & D), miscellaneous concrete slabs and sidewalks will be considered equal to granular or limestone base course material specified in Section 2.2 of CW 3110.

E8.3.2 Recycled concrete base course material will be approved by the Contract Administrator.

E8.3.3 Recycled concrete base course material will consist of sound durable particles produced by crushing, screening, and grading of recovered concrete materials, free from soft material that would disintegrate through decay or weathering.

E8.3.4 The recycled concrete base course material will be well graded and conform to the following grading requirements:

E8.3.5 Recycled Concrete Base Course Material Grading Requirements

CANADIAN METRIC SIEVE SIZE	PERCENT OF TOTAL DRY WEIGHT PASSING EACH SIEVE
20 000	100%
5 000	40% - 70%
2 500	25% - 60%
315	8% - 25%
80	6% - 17%

- E8.3.6 Recycled concrete base course material when subjected to the abrasion test will have a loss of not more than 35% when tested in accordance with grading B of ASTM C131, Test for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine.
- E8.3.7 The amount of deleterious material will be limited to a maximum of two percent of the total dry weight.

#### CONSTRUCTION METHODS

- E8.4 Placement of Recycled Concrete Base Course Material
- E8.4.1 Place and compact recycled concrete base course material as a levelling course to a maximum thickness of 50 millimetres.
- E8.4.2 Spread materials uniformly to avoid segregation free of pockets of fine and coarse material.
- E8.4.3 Level and compact to the finished elevation. Compact to 100% Standard Proctor Density for Full-Depth Partial Slab Patches (Class A, B, C, & D) and 90% Standard Proctor Density for miscellaneous concrete slabs and sidewalks.
- E8.4.4 Maintain the finished material until the pavement or sidewalk is placed.

#### MEASUREMENT AND PAYMENT

- E8.5 Recycled Concrete Base Course Material
- E8.5.1 The supplying, placing and compaction of recycled concrete base course material will be measured on a volume basis and paid for at the Contract Unit Price per cubic metre for the "Supplying and Placing Base Course Material" as specified in accordance with CW 3110.
- E8.5.2 No measurement or payment will be made for material placed as a levelling course under miscellaneous concrete slabs and sidewalks where the costs are included in accordance with CW 3235 and CW 3325.
- E8.5.3 No measurement or payment will be made for materials rejected by the Contract Administrator.

### **E9. SUPPLY AND INSTALLATION OF PAVEMENT REPAIR FABRIC**

#### DESCRIPTION

- E9.1 General
- E9.1.1 This specification covers the supply and installation of pavement repair fabric.
- E9.1.2 Referenced Standard Construction
- (a) CW 3130 – Supply and Installation of Geotextile Fabrics.

#### MATERIALS

- E9.2 Storage and Handling
- E9.2.1 Store and handle material in accordance with Section 2 of CW 3130.
- E9.3 Pavement Repair Fabric
- E9.3.1 Pavement repair fabric will be Glas Grid Road Reinforcement Mesh - Style 8501 or approved equal.

## CONSTRUCTION METHODS

### E9.4 General

- E9.4.1 Install pavement repair fabric at random locations as directed by the Contract Administrator.
- E9.4.2 The extent of the placement limits and quantities required will be determined by the Contract Administrator and provided 48 hours prior to the placement of asphalt.
- E9.4.3 Proceed with installation upon completion and acceptance of the asphalt levelling course.
- E9.4.4 Install fabric in accordance with the manufacturer's specifications and recommendations.
- E9.4.5 Only construction equipment required to place the final asphalt surface course will be allowed to travel on the exposed fabric.
- E9.4.6 Replace damaged or improperly placed fabric.
- E9.4.7 Ensure temperature of the asphalt material does not exceed the melting point of the fabric.

## MEASUREMENT AND PAYMENT

### E9.5 Pavement Repair Fabric

- E9.5.1 The supply and installation of the pavement repair fabric will be measured on an area basis and paid for at the Contract Unit Price per square metre for "Pavement Repair Fabric". The area to be paid for will be the total number of square metres of pavement repair fabric supplied and installed in accordance with this specification, accepted and measured by the Contract Administrator.

## **E10. SQUARE LIFTER RING RISERS**

### DESCRIPTION

#### E10.1 General

- E10.1.1 This specification covers the construction, supply, and installation for square or rectangular shaped lifter rings for gutter inlets.
- E10.1.2 Referenced Standard Construction Specifications
  - (a) CW 2130-R9 – Gravity Sewers
  - (b) CW 3210-R6 – Adjustment of Pavement and Boulevard Structures.

### MATERIALS

#### E10.2 Fabricated Square or Rectangular Shaped Lifter Rings

- E10.2.1 Cast iron lifter ring material in accordance with CW 2130 Section 2.7.
- E10.2.2 Construct risers to suit dimensions of gutter inlets as chosen by Contract Administrator. All risers to be 38 mm in height.

## CONSTRUCTION METHODS

### E10.3 General

- E10.3.1 Install square/rectangular gutter inlet risers at locations as directed by Contract Administrator.

## MEASUREMENT AND PAYMENT

### E10.4 Square Lifter Ring Risers

- E10.4.1 Square Lifter Ring Risers will be measured on a unit basis and paid for at the Contract Unit Price per unit for "Square Lifter Ring Risers". The number to be paid for will be the total number of risers constructed and installed in accordance with this specification, as measured and accepted by the Contract Administrator.

## E11. PATCHING OF EXISTING PAVEMENT

### DESCRIPTION

#### E11.1 General

- E11.1.1 This specification covers patching of existing concrete pavement in preparation for an asphalt overlay.
- E11.1.2 Referenced Standard Construction Specifications
- (a) CW 3110 – Sub-Grade, Sub-Base and Base Course Construction.
  - (b) CW 3130 – Supply and Installation of Geotextile Fabrics.
  - (c) CW 3410 – Asphaltic Concrete Pavement Works.

### MATERIALS

#### E11.2 Crushed Sub-Base Material

- E11.2.1 Crushed Sub-base material will have a maximum aggregate size of 50 millimetre and be supplied in accordance with Section 2.1 of CW 3110.

#### E11.3 Geotextile Fabric

- E11.3.1 Geotextile fabric will be supplied in accordance with Section 2 of CW 3130.

#### E11.4 Asphalt Material

- E11.4.1 Asphalt material will be Type 1A and will be supplied in accordance with Sections 5 and 6 of CW 3410.

### CONSTRUCTION METHODS

#### E11.5 General

- E11.5.1 Remove existing concrete pavement to a minimum width of 1.5 metres at locations as shown on the Drawings or as directed by the Contract Administrator in accordance with Section 3.1 of Specification CW 3110.
- E11.5.2 Excavate to a depth of 350 millimetres below the top of the existing pavement.
- E11.5.3 Compact existing sub-grade to a minimum of 95% Standard Proctor Density.
- E11.5.4 Place separation/reinforcement geotextile fabric in accordance with Specification CW 3130.
- E11.5.5 Place and compact crushed sub-base material in accordance with CW 3110 to a 300 millimetres compacted depth. Compact to a minimum of 100% Standard Proctor Density.

- E11.5.6 Place and compact asphalt material to a 50 millimetres compacted depth matching the top of the existing concrete pavement. Compact to an average of 95% percent of the 75 Blow Marshall Density of the paving mixture with no individual test being less than 90% percent.
- E11.5.7 Each layer must be levelled and accepted by the Contract Administrator before the succeeding layer may be placed.
- E11.5.8 Additional excavation and placement of sub-base material beyond the identified pavement structure will be completed in accordance with CW 3110 as directed by the Contract Administrator.

#### MEASUREMENT AND PAYMENT

- E11.6 Pavement Patching
- E11.6.1 Pavement patching will be measured on an area basis and paid for at the Contract Unit Price per square metre for "Pavement Patching". The area to be paid for will be the total number of square metres of pavement patched in accordance with this specification, accepted and measured by the Contract Administrator.

### **E12. ASPHALT PATCHING OVER FULL DEPTH CONCRETE REPAIRS**

#### DESCRIPTION

- E12.1 General
- E12.1.1 This specification covers placing asphalt over full depth concrete repairs to match the grade of the remaining adjacent asphalt overlay prior to placing the asphalt scratch course. The patching is necessary to prevent transverse rutting from sudden depth changes where the existing overlay is removed over a concrete repair.
- E12.1.2 Referenced Standard Construction Specifications
- (a) CW 3410-R6 – Asphaltic Concrete Pavement Works.
  - (b) CW 3450-R3 – Planing of Pavement.

#### MATERIALS

- E12.2 Asphalt Material
- E12.2.1 Asphalt material will be Type 1A and will be supplied in accordance with Sections 5 and 6 of CW 3410-R6.

#### CONSTRUCTION METHODS

- E12.3 General
- E12.3.1 Asphalt patch to be placed where there is a minimum of 35 millimetres of remaining asphalt overlay immediately adjacent to a full depth concrete repair in accordance with Paragraph 3 of Clause 9.1.2 (a) of CW 3410-R6
- E12.3.2 Place tack coat in patch area by hand, hand sprayer, or broom as necessary in accordance with Clause 9.2 of CW 3410-R6.
- E12.3.3 Place and compact using mechanical rollers. Place the asphalt material to a compacted depth matching the top of the existing asphalt overlay. Compact to an average of 98% percent of the 75 Blow Marshall Density of the paving mixture with no individual test being less than 95% percent.

#### MEASUREMENT AND PAYMENT

#### E12.4 Asphalt Patching over Full Depth Concrete Repairs

- E12.4.1 Asphalt Patching over Full Depth Concrete Repairs will be measured on a weight basis and paid for at the Contract Unit Price per tonne for "Asphalt Patching over Full Depth Concrete Repairs". The weight to be paid for will be the total number of tonnes of asphalt placed and compacted in accordance with this specification, as measured on a certified weigh scale, and accepted by the Contract Administrator.

### **E13. MONOLITHIC CURB AND SIDEWALK WITH EMBEDDED PAVING STONES**

#### DESCRIPTION

##### E13.1 General

- E13.1.1 This specification covers the removal, modification, and installation of monolithic curb and sidewalk with embedded paving stones. The paving stone materials and pattern are to generally match the existing conditions with additions and modifications as shown on the construction drawings.
- E13.1.2 Referenced Standard Construction Specifications
- (a) CW 3235-R5 – Renewal of Existing Miscellaneous Concrete Slabs.
  - (b) CW 3310-R9 – Portland Cement Concrete Pavement Works.
  - (c) CW 3330-R3 – Installation of Interlocking Paving Stones
  - (d) CW 3335-R0 – Installation of Interlocking Paving Stones on a Lean Concrete Base

#### MATERIALS

##### E13.2 Concrete Materials

- E13.2.1 Concrete for curb and sidewalk as per Type 1 in Section 6 of CW 3310-R9.
- E13.2.2 Concrete under areas of paving stone areas larger than one (1) square metre and not poured monolithically with any curb to be lean concrete base as per Section 5 of CW 3335-R0.
- E13.2.3 Miscellaneous materials such as reinforcing steel, base course, and all other incidental materials as per CW 3310-R9.

##### E13.3 Interlocking Paving Stones

- E13.3.1 Interlocking paving stones as per Section 5 of CW 3335-R0.
- E13.3.2 New interlocking paving stones shall be of a type, colour, and pattern to match the existing stones at the project site. Existing stones are as follows:
- (a) Double Holland Stone Soldier Course (Charcoal)
  - (b) Holland Stone Soldier Course (Tan)
  - (c) Holland Stone Herringbone Pattern (Autumn Brown)
- E13.3.3 Miscellaneous materials such as bedding sand, filler sand, and all other incidental materials as per CW 3335-R0.

#### CONSTRUCTION METHODS

##### E13.4 Monolithic Curb and Sidewalk Removal

- E13.4.1 Remove as per Section 3.1 of CW 3235-R5. Limits as shown on the construction drawings and as instructed by the Contract Administrator.

E13.4.2 Salvage intact existing interlocking paving stones that are clean and relatively free of grout. Only full size, uncut stones shall be salvaged. Store for future reinstallation.

E13.5 Monolithic Curb and Sidewalk Installation

E13.5.1 Install concrete as per Section 3.2 of CW 3235-R5.

E13.5.2 Install paving stones in concrete as per Section 9 of CW 3335-R0 and as shown on the construction drawings.

E13.5.3 Reinstall existing paving stones and utilize new paving stones where necessary.

MEASUREMENT AND PAYMENT

E13.6 Remove Monolithic Curb and Sidewalk and Dispose of Paving Stones

E13.6.1 Removing existing monolithic curb and sidewalk with embedded paving stones and disposing of all materials will be measured on an area basis and paid for at the Contract Unit Price per square metre for "Remove Monolithic Curb and Sidewalk and Dispose of Paving Stones". The amount to be paid for will be the total number of square metres of curb and sidewalk with embedded paving stones removed and disposed of in accordance with this specification, and accepted by the Contract Administrator.

E13.7 Remove Monolithic Curb and Sidewalk and Salvage Paving Stones

E13.7.1 Removing existing monolithic curb and sidewalk with embedded paving stones and salvaging the paving stones will be measured on an area basis and paid for at the Contract Unit Price per square metre for "Remove Monolithic Curb and Sidewalk and Salvage Paving Stones". The amount to be paid for will be the total number of square metres of curb and sidewalk with embedded paving stones removed and the paving stones salvaged and stockpiled in accordance with this specification, and accepted by the Contract Administrator.

E13.8 Install Monolithic Curb and Sidewalk with New Paving Stones

E13.8.1 Installing new monolithic curb and sidewalk with new paving stones will be measured on an area basis and paid for at the Contract Unit Price per square metre for "Install Monolithic Curb and Sidewalk with New Paving Stones". The amount to be paid for will be the total number of square metres of curb and sidewalk with new embedded paving stones installed in accordance with this specification, and accepted by the Contract Administrator.

E13.9 Install Monolithic Curb and Sidewalk with Salvaged Paving Stones

E13.9.1 Installing new monolithic curb and sidewalk with salvaged paving stones will be measured on an area basis and paid for at the Contract Unit Price per square metre for "Install Monolithic Curb and Sidewalk with Salvaged Paving Stones". The amount to be paid for will be the total number of square metres of curb and sidewalk with salvaged embedded paving stones installed in accordance with this specification, and accepted by the Contract Administrator.

**E14. POWERED BUS SHELTER BASE CONSTRUCTION**

DESCRIPTION

E14.1 General

E14.1.1 This specification covers the removal and reinstallation of the Winnipeg Transit bus shelter concrete base pad. The pad requires electrical connection for the shelter structure (by

others). The concrete base pad will be the same dimensions and general location of the existing pad, but is being reinstalled for elevation.

E14.1.2 Referenced Standard Construction Specifications

- (a) CW 3310-R9 – Portland Cement Concrete Pavement Works.
- (b) CW 3325-R2 – Portland Cement Concrete Sidewalk.

MATERIALS

E14.2 Concrete Materials

- E14.2.1 Concrete for concrete base pad as per Type 1 in Section 6 of CW 3310-R9.
- E14.2.2 Miscellaneous materials such as reinforcing steel, base course, and all other incidental materials as per CW 3310-R9.

E14.3 Power Conduit

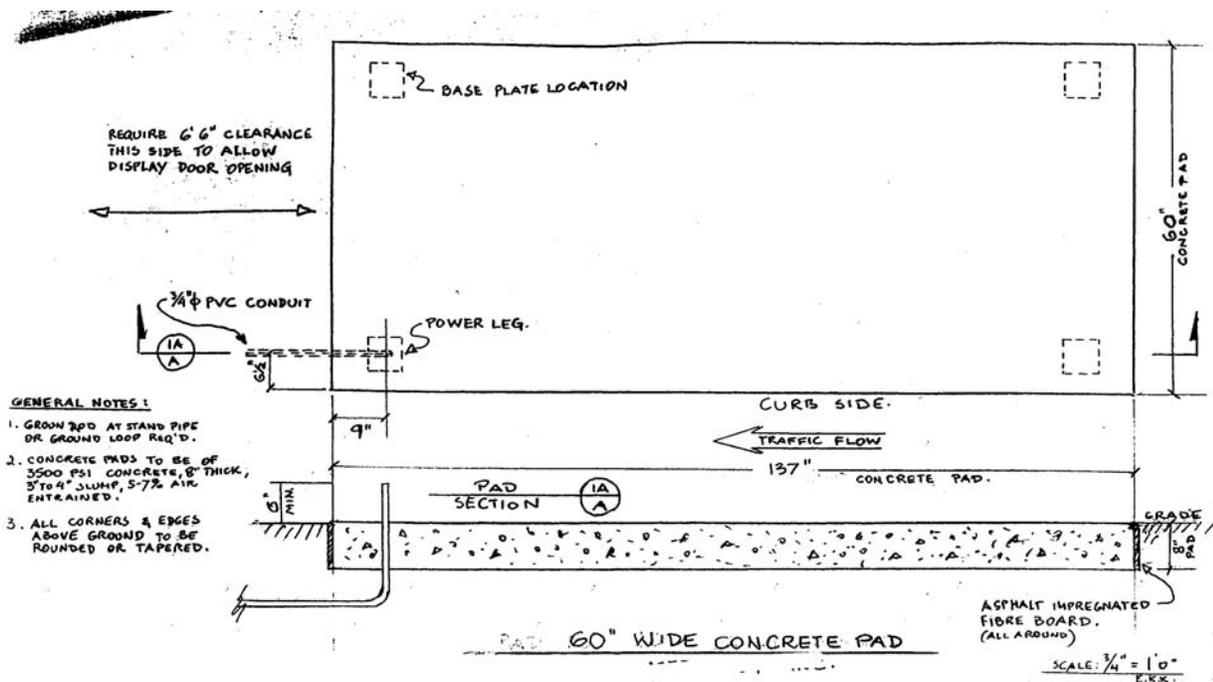
- E14.3.1 Electrical supplies and materials as per the current edition of the National Building Code and Electrical Code.
- E14.3.2 Supply new 50 mm polyethylene conduit if necessary.

CONSTRUCTION METHODS

E14.4 General

- E14.4.1 Contract Administrator will arrange to have power disconnected and the bus shelter structure removed prior to construction.
- E14.4.2 Contractor to excavate existing shelter base. Existing power conduit and wiring to be rolled up and stored near the adjacent light standard from which it originates.
- E14.4.3 Shelter Base to be replaced to location and elevation determined by the Contract Administrator. Conduit and wiring to be reinstalled up through the shelter base for future connection.
- E14.4.4 Conduit must be able to be reconnected at the street light by others.
- E14.4.5 Contract Administrator will arrange to have shelter structure replaced and power reconnected.
- E14.4.6 Shelter base dimensions are as shown below. Conduit placement through base location will be supplied by Contract Administrator.

(a) Bus Shelter Base Dimensions



MEASUREMENT AND PAYMENT

E14.5 Powered Bus Shelter Base Construction

E14.5.1 Powered Bus Shelter Base Construction will be measured on a unit basis and paid for at the Contract Unit Price per unit for "Powered Bus Shelter base Construction". The amount to be paid for will be the total number of units constructed in accordance with this specification, and accepted by the Contract Administrator.