

# THE CITY OF WINNIPEG

# **BID OPPORTUNITY**

**BID OPPORTUNITY NO. 212-2010** 

**2010 WATERMAIN RENEWALS - CONTRACT 9** 

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#### **PART B - BIDDING PROCEDURES**

#### **B1.** CONTRACT TITLE

B1.1 2010 WATERMAIN RENEWALS - CONTRACT 9

#### **B2. SUBMISSION DEADLINE**

- B2.1 The Submission Deadline is 12:00 noon Winnipeg time, April 21, 2010.
- B2.2 Bids determined by the Manager of Materials to have been received later than the Submission Deadline will not be accepted and will be returned upon request.
- B2.3 The Contract Administrator or the Manager of Materials may extend the Submission Deadline by issuing an addendum at any time prior to the time and date specified in B2.1.

#### **B3.** SITE INVESTIGATION

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

#### **B4. ENQUIRIES**

- B4.1 All enquiries shall be directed to the Contract Administrator identified in D3.1.
- B4.2 If the Bidder finds errors, discrepancies or omissions in the Bid Opportunity, or is unsure of the meaning or intent of any provision therein, the Bidder shall notify the Contract Administrator of the error, discrepancy or omission, or request a clarification as to the meaning or intent of the provision at least five (5) Business Days prior to the Submission Deadline.
- B4.3 Responses to enquiries which, in the sole judgment of the Contract Administrator, require a correction to or a clarification of the Bid Opportunity will be provided by the Contract Administrator to all Bidders by issuing an addendum.
- B4.4 Responses to enquiries which, in the sole judgment of the Contract Administrator, do not require a correction to or a clarification of the Bid Opportunity will be provided by the Contract Administrator only to the Bidder who made the enquiry.
- B4.5 The Bidder shall not be entitled to rely on any response or interpretation received pursuant to B4 unless that response or interpretation is provided by the Contract Administrator in writing.

#### B5. ADDENDA

- B5.1 The Contract Administrator may, at any time prior to the Submission Deadline, issue addenda correcting errors, discrepancies or omissions in the Bid Opportunity, or clarifying the meaning or intent of any provision therein.
- B5.2 The Contract Administrator will issue each addendum at least two (2) Business Days prior to the Submission Deadline, or provide at least two (2) Business Days by extending the Submission Deadline.
- B5.2.1 Addenda will be available on the Bid Opportunities page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <a href="http://www.winnipeg.ca/matmgt/bidopp.asp">http://www.winnipeg.ca/matmgt/bidopp.asp</a>
- B5.2.2 The Bidder is responsible for ensuring that he has received all addenda and is advised to check the Materials Management Division website for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.
- B5.3 The Bidder shall acknowledge receipt of each addendum in Paragraph 10 of Form A: Bid. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.

#### **B6.** SUBSTITUTES

- B6.1 The Work is based on the Plant, Materials and methods specified in the Bid Opportunity.
- B6.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.
- B6.3 Requests for approval of a substitute will not be considered unless received in writing by the Contract Administrator at least five (5) Business Days prior to the Submission Deadline.
- B6.4 The Bidder shall ensure that any and all requests for approval of a substitute:
  - (a) provide sufficient information and details to enable the Contract Administrator to determine the acceptability of the Plant, Material or method as either an approved equal or alternative;
  - (b) identify any and all changes required in the applicable Work, and all changes to any other Work, which would become necessary to accommodate the substitute;
  - (c) identify any anticipated cost or time savings that may be associated with the substitute;
  - (d) certify that, in the case of a request for approval as an approved equal, the substitute will fully perform the functions called for by the general design, be of equal or superior substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance;
  - (e) certify that, in the case of a request for approval as an approved alternative, the substitute will adequately perform the functions called for by the general design, be similar in substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance.
- B6.5 The Contract Administrator, after assessing the request for approval of a substitute, may in his sole discretion grant approval for the use of a substitute as an "approved equal" or as an "approved alternative", or may refuse to grant approval of the substitute.
- B6.6 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, only to the Bidder who requested approval of the substitute.
- B6.6.1 The Bidder requesting and obtaining the approval of a substitute shall be entirely responsible for disseminating information regarding the approval to any person or persons he wishes to inform.
- B6.7 If the Contract Administrator approves a substitute as an "approved equal", any Bidder may use the approved equal in place of the specified item.
- B6.8 If the Contract Administrator approves a substitute as an "approved alternative", any Bidder bidding that approved alternative may base his Total Bid Price upon the specified item but may also indicate an alternative price based upon the approved alternative. Such alternatives will be evaluated in accordance with B15.
- B6.9 No later claim by the Contractor for an addition to the Total Bid Price because of any other changes in the Work necessitated by the use of an approved equal or an approved alternative will be considered.
- B6.10 Notwithstanding B6.2 to B6.9, and in accordance with B7.6 deviations inconsistent with the Bid Opportunity document shall be evaluated in accordance with B15.1(a).

#### **B7.** BID COMPONENTS

B7.1 The Bid shall consist of the following components:

- (a) Form A: Bid;
- (b) Form B: Prices;
- (c) Bid Security
  - Form G1: Bid Bond and Agreement to Bond, or Form G2: Irrevocable Standby Letter of Credit and Undertaking, or a certified cheque or draft;
- B7.2 Further to B7.1, the Bidder should include the written correspondence from the Contract Administrator approving a substitute in accordance with B6.
- B7.3 All components of the Bid shall be fully completed or provided, and submitted by the Bidder no later than the Submission Deadline, with all required entries made clearly and completely, to constitute a responsive Bid.
- B7.4 The Bid shall be submitted enclosed and sealed in an envelope clearly marked with the Bid Opportunity number and the Bidder's name and address.
- B7.4.1 Samples or other components of the Bid which cannot reasonably be enclosed in the envelope may be packaged separately, but shall be clearly marked with the Bid Opportunity number, the Bidder's name and address, and an indication that the contents are part of the Bidder's Bid.
- B7.5 Bidders are advised not to include any information/literature except as requested in accordance with B7.1.
- B7.6 Bidders are advised that inclusion of terms and conditions inconsistent with the Bid Opportunity document, including the General Conditions, will be evaluated in accordance with B15.1(a).
- B7.7 Bids submitted by facsimile transmission (fax) or internet electronic mail (e-mail) will not be accepted.
- B7.8 Bids shall be submitted to:

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

#### B8. BID

- B8.1 The Bidder shall complete Form A: Bid, making all required entries.
- B8.2 Paragraph 2 of Form A: Bid shall be completed in accordance with the following requirements:
  - (a) if the Bidder is a sole proprietor carrying on business in his own name, his name shall be inserted:
  - (b) if the Bidder is a partnership, the full name of the partnership shall be inserted;
  - (c) if the Bidder is a corporation, the full name of the corporation shall be inserted;
  - (d) if the Bidder is carrying on business under a name other than his own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.
- B8.2.1 If a Bid is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B8.2.
- B8.3 In Paragraph 3 of Form A: Bid, the Bidder shall identify a contact person who is authorized to represent the Bidder for purposes of the Bid.
- B8.4 Paragraph 12 of Form A: Bid shall be signed in accordance with the following requirements:

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

#### B9. PRICES

- B9.1 The Bidder shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.
- B9.2 The quantities listed on Form B: Prices are to be considered approximate only. The City will use said quantities for the purpose of comparing Bids.
- B9.3 The quantities for which payment will be made to the Contractor are to be determined by the Work actually performed and completed by the Contractor, to be measured as specified in the applicable Specifications.
- B9.4 Prices from Non-Resident Bidders are subject to a Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).

#### **B10. QUALIFICATION**

- B10.1 The Bidder shall:
  - (a) undertake to be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba; and
  - (b) be financially capable of carrying out the terms of the Contract; and
  - (c) have all the necessary experience, capital, organization, and equipment to perform the Work in strict accordance with the terms and provisions of the Contract.
- B10.2 The Bidder and any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:
  - (a) be responsible and not be suspended, debarred or in default of any obligations to the City. A list of suspended or debarred individuals and companies is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <a href="http://www.winnipeg.ca/matmgt/debar.stm">http://www.winnipeg.ca/matmgt/debar.stm</a>
- B10.3 The Bidder and/or any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:
  - (a) have successfully carried out work similar in nature, scope and value to the Work; and
  - (b) be fully capable of performing the Work required to be in strict accordance with the terms and provisions of the Contract; and
  - (c) have a written workplace safety and health program if required pursuant to The Workplace Safety and Health Act (Manitoba);

- B10.4 Further to B10.3(c), the Bidder shall, within five (5) Business Days of a request by the Contract Administrator, provide proof satisfactory to the Contract Administrator that the Bidder/Subcontractor has a workplace safety and health program meeting the requirements of The Workplace Safety and Health Act (Manitoba), by providing:
  - (a) a valid COR certification number under the Certificate of Recognition (COR) Program administered by the Manitoba Construction Safety Association or by the Manitoba Heavy Construction Association's Safety, Health and Environment Program; or
  - (b) a report or letter to that effect from an independent reviewer acceptable to the City. (A list of acceptable reviewers and the review template are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at http://www.winnipeg.ca/matmgt)
- B10.5 The Bidder shall submit, within three (3) Business Days of a request by the Contract Administrator, proof satisfactory to the Contract Administrator of the qualifications of the Bidder and of any proposed Subcontractor.
- B10.6 The Bidder shall provide, on the request of the Contract Administrator, full access to any of the Bidder's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Bidder's equipment and facilities are adequate to perform the Work.

#### **B11.** BID SECURITY

- B11.1 The Bidder shall provide bid security in the form of:
  - (a) a bid bond, in the amount of at least ten percent (10%) of the Total Bid Price, and agreement to bond of a company registered to conduct the business of a surety in Manitoba, in the form included in the Bid Submission (Form G1: Bid Bond and Agreement to Bond); or
  - (b) an irrevocable standby letter of credit, in the amount of at least ten percent (10%) of the Total Bid Price, and undertaking issued by a bank or other financial institution registered to conduct business in Manitoba and drawn on a branch located in Winnipeg, in the form included in the Bid Submission (Form G2: Irrevocable Standby Letter of Credit and Undertaking); or
  - (c) a certified cheque or draft payable to "The City of Winnipeg", in the amount of at least fifty percent (50%) of the Total Bid Price, drawn on a bank or other financial institution registered to conduct business in Manitoba.
- B11.1.1 If the Bidder submits alternative bids, the bid security shall be in the amount of the specified percentage of the highest Total Bid Price submitted.
- B11.1.2 All signatures on bid securities shall be original.
- B11.1.3 The Bidder shall sign the Bid Bond.
- B11.1.4 The Surety shall sign and affix its corporate seal on the Bid Bond and the Agreement to Bond.
- B11.2 The bid security of the successful Bidder and the next two lowest evaluated responsive and responsible Bidders will be released by the City when a Contract for the Work has been duly executed by the successful Bidder and the performance security furnished as provided herein. The bid securities of all other Bidders will be released when a Contract is awarded.
- B11.2.1 Where the bid security provided by the successful Bidder is in the form of a certified cheque or draft pursuant to B11.1(c), it will be deposited and retained by the City as the performance security and no further submission is required.
- B11.2.2 The City will not pay any interest on certified cheques or drafts furnished as bid security or subsequently retained as performance security.

B11.3 The bid securities of all Bidders will be released by the City as soon as practicable following notification by the Contract Administrator to the Bidders that no award of Contract will be made pursuant to the Bid Opportunity.

#### B12. OPENING OF BIDS AND RELEASE OF INFORMATION

- B12.1 Bids will be opened publicly, after the Submission Deadline has elapsed, in the office of the Corporate Finance Department, Materials Management Division, or in such other office as may be designated by the Manager of Materials.
- B12.1.1 Bidders or their representatives may attend.
- B12.1.2 Bids determined by the Manager of Materials, or his designate, to not include the bid security specified in B11 will not be read out.
- B12.2 Following the submission deadline, the names of the Bidders and their Total Bid Prices (unevaluated, and pending review and verification of conformance with requirements) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at http://www.winnipeg.ca/matmgt
- B12.3 After award of Contract, the name(s) of the successful Bidder(s) and the Contract Amount(s) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <a href="http://www.winnipeg.ca/matmgt">http://www.winnipeg.ca/matmgt</a>
- B12.4 The Bidder is advised that any information contained in any Bid may be released if required by City policy or procedures, by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law.

#### **B13.** IRREVOCABLE BID

- B13.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 11 of Form A: Bid.
- B13.2 The acceptance by the City of any Bid shall not release the Bids of the next two lowest evaluated responsive Bidders and these Bidders shall be bound by their Bids on such Work until a Contract for the Work has been duly executed and the performance security furnished as herein provided, but any Bid shall be deemed to have lapsed unless accepted within the time period specified in Paragraph 11 of Form A: Bid.

#### **B14. WITHDRAWAL OF BIDS**

- B14.1 A Bidder may withdraw his Bid without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.
- B14.1.1 Notwithstanding C23.3, the time and date of receipt of any notice withdrawing a Bid shall be the time and date of receipt as determined by the Manager of Materials.
- B14.1.2 The City will assume that any one of the contact persons named in Paragraph 3 of Form A: Bid or the Bidder's authorized representatives named in Paragraph 12 of Form A: Bid, and only such person, has authority to give notice of withdrawal.
- B14.1.3 If a Bidder gives notice of withdrawal prior to the Submission Deadline, the Manager of Materials will:
  - (a) retain the Bid until after the Submission Deadline has elapsed;
  - (b) open the Bid to identify the contact person named in Paragraph 3 of Form A: Bid and the Bidder's authorized representatives named in Paragraph 12 of Form A: Bid; and
  - (c) if the notice has been given by any one of the persons specified in B14.1.3(b), declare the Bid withdrawn.

B14.2 A Bidder who withdraws his Bid after the Submission Deadline but before his Bid has been released or has lapsed as provided for in B13.2 shall be liable for such damages as are imposed upon the Bidder by law and subject to such sanctions as the Chief Administrative Officer considers appropriate in the circumstances. The City, in such event, shall be entitled to all rights and remedies available to it at law, including the right to retain the Bidder's bid security.

#### **B15. EVALUATION OF BIDS**

- B15.1 Award of the Contract shall be based on the following bid evaluation criteria:
  - (a) compliance by the Bidder with the requirements of the Bid Opportunity, or acceptable deviation there from (pass/fail);
  - (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B10 (pass/fail);
  - (c) Total Bid Price;
  - (d) economic analysis of any approved alternative pursuant to B6.
- B15.2 Further to B15.1(a), the Award Authority may reject a Bid as being non-responsive if the Bid is incomplete, obscure or conditional, or contains additions, deletions, alterations or other irregularities. The Award Authority may reject all or any part of any Bid, or waive technical requirements or minor informalities or irregularities, if the interests of the City so require.
- B15.3 Further to B15.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in his Bid or in other information required to be submitted, that he is responsible and qualified.
- B15.4 Further to B15.1(c), the Total Bid Price shall be the sum of the quantities multiplied by the unit prices for each item shown on Form B: Prices.
- B15.4.1 If there is any discrepancy between the Total Bid Price written in figures, the Total Bid Price written in words and the sum of the quantities multiplied by the unit prices for each item, the sum of the quantities multiplied by the unit prices for each item shall take precedence.
- B15.4.2 Further to B15.1(a), in the event that a unit price is not provided on Form B: Prices, the City will determine the unit price by dividing the Amount (extended price) by the approximate quantity, for the purposes of evaluation and payment.

#### **B16.** AWARD OF CONTRACT

- B16.1 The City will give notice of the award of the Contract or will give notice that no award will be made.
- B16.2 The City will have no obligation to award a Contract to a Bidder, even though one or all of the Bidders are determined to be responsible and qualified, and the Bids are determined to be responsive.
- B16.2.1 Without limiting the generality of B16.2, the City will have no obligation to award a Contract where:
  - (a) the prices exceed the available City funds for the Work;
  - (b) the prices are materially in excess of the prices received for similar work in the past;
  - (c) the prices are materially in excess of the City's cost to perform the Work, or a significant portion thereof, with its own forces;
  - (d) only one Bid is received: or
  - (e) in the judgment of the Award Authority, the interests of the City would best be served by not awarding a Contract.

- B16.3 Where an award of Contract is made by the City, the award shall be made to the responsible and qualified Bidder submitting the lowest evaluated responsive Bid, in accordance with B15.
- B16.3.1 Following the award of contract, a Bidder will be provided with information related to the evaluation of his Bid upon written request to the Contract Administrator.

#### **PART C - GENERAL CONDITIONS**

#### CO. GENERAL CONDITIONS

- C0.1 The *General Conditions for Construction* (Revision 2006 12 15) are applicable to the Work of the Contract.
- C0.1.1 The General Conditions for Construction are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <a href="http://www.winnipeg.ca/matmgt/gen\_cond.stm">http://www.winnipeg.ca/matmgt/gen\_cond.stm</a>
- C0.2 A reference in the Bid Opportunity to a section, clause or subclause with the prefix "C" designates a section, clause or subclause in the *General Conditions for Construction*.

#### **PART D - SUPPLEMENTAL CONDITIONS**

#### **GENERAL**

#### D1. GENERAL CONDITIONS

D1.1 In addition to the *General Conditions for Construction*, these Supplemental Conditions are applicable to the Work of the Contract.

#### D2. SCOPE OF WORK

- D2.1 The Work to be done under the Contract shall consist of various watermain renewals in the City of Winnipeg.
- D2.2 The major components of the Work are as follows:
  - (a) Installation of approximately 1050 metres of 150 to 300 mm diameter PVC watermain pipe by trenchless methods;
  - (b) Abandonment or removal of existing watermains, hydrants, and valves;
  - (c) Installation of valves and hydrants;
  - (d) Reconnection or renewal of water service connections;
  - (e) Restoration of pavement and boulevard areas.

#### D3. CONTRACT ADMINISTRATOR

D3.1 The Contract Administrator is AECOM Canada Ltd., represented by:

Greg Karman, C.E.T.

**Project Coordinator** 

99 Commerce Drive, Winnipeg, Manitoba, R3P 0Y7

Telephone No. (204) 477-5381 Facsimile No. (204) 284-2040

D3.2 At the pre-construction meeting, Mr. Karman 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 C23.2.2, all notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the Contractor shall be sent to the address or facsimile number identified by the Contractor in Paragraph 2 of Form A: Bid.
- D5.2 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the City, except as expressly otherwise required in D5.3, D5.4 or elsewhere in the Contract, shall be sent to the attention of the Contract Administrator at the address or facsimile number identified in D3.1.
- D5.3 Notwithstanding C21, all notices of appeal to the Chief Administrative Officer shall be sent to the attention of the Chief Financial Officer at the following address or facsimile number:

The City of Winnipeg

Chief Financial Officer Administration Building, 3rd Floor 510 Main Street Winnipeg MB R3B 1B9

Facsimile No.: (204) 949-1174

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

The City of Winnipeg Internal Services Department Legal Services Division Attn: City Solicitor 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. AUTHORITY TO CARRY ON BUSINESS

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

#### D8. SAFE WORK PLAN

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

#### D9. INSURANCE

- D9.1 The Contractor shall provide and maintain the following insurance coverage:
  - (a) commercial general liability insurance, in the amount of at least two million dollars (\$2,000,000.00) inclusive, with The City of Winnipeg added as an additional insured, with a cross-liability clause, such liability policy to also contain contractual liability, unlicensed motor vehicle liability, non-owned automobile liability, broad form property damage cover and products and completed operations, to remain in place at all times during the performance of the Work and throughout the warranty period;

- (b) automobile liability insurance for owned automobiles used for or in connection with the Work in the amount of at least two million dollars (\$2,000,000.00) at all times during the performance of the Work and until the date of Total Performance:
- (c) an all risks Installation Floater carrying adequate limits to cover all machinery, equipment, supplies and/or materials intended to enter into and form part of any installation.
- D9.2 Deductibles shall be borne by the Contractor.
- D9.3 The Contractor shall provide the City Solicitor with a certificate(s) of insurance, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Work but in no event later than the date specified in C4.1 for the return of the executed Contract.
- D9.4 The Contractor shall not cancel, materially alter, or cause each policy to lapse without providing at least thirty (30) Calendar Days prior written notice to the Contract Administrator.

#### D10. PERFORMANCE SECURITY

- D10.1 The Contractor shall provide and maintain performance security until the expiration of the warranty period in the form of:
  - (a) a performance bond of a company registered to conduct the business of a surety in Manitoba, in the form attached to these Supplemental Conditions (Form H1: Performance Bond), in the amount of fifty percent (50%) of the Contract Price; or
  - (b) an irrevocable standby letter of credit issued by a bank or other financial institution registered to conduct business in Manitoba and drawn on a branch located in Winnipeg, in the form attached to these Supplemental Conditions (Form H2: Irrevocable Standby Letter of Credit), in the amount of fifty percent (50%) of the Contract Price; or
  - (c) a certified cheque or draft payable to "The City of Winnipeg", drawn on a bank or other financial institution registered to conduct business in Manitoba, in the amount of fifty percent (50%) of the Contract Price.
- D10.1.1 Where the performance security is in the form of a certified cheque or draft, it will be deposited by the City. The City will not pay any interest on certified cheques or drafts furnished as performance security.
- D10.2 If the bid security provided in his Bid was not a certified cheque or draft pursuant to B11.1(c), the Contractor shall provide the City Solicitor with the required performance security within seven (7) Calendar Days of notification of the award of the Contract by way of letter of intent and prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.

#### D11. SECURITY CLEARANCE

- D11.1 Each individual proposed to perform the following portions of the Work:
  - (a) any Work on private property:
  - (b) communicating with residents and homeowners in person or by telephone;
  - shall be required to obtain a Criminal Record Search Certificate from the police service having jurisdiction at his place of residence.
- D11.2 Prior to the commencement of any Work specified in D11.1, and during the term of the Contract 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 such Work.
- D11.3 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 specified in D11.1.
- D11.4 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.
- D11.5 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 any Work specified in D11.1.

#### D12. DETAILED WORK SCHEDULE

- D12.1 The Contractor shall provide the Contract Administrator with a detailed work schedule at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C:4.1 for the return of the executed Contract.
- D12.2 The detailed work schedule shall consist of the following:
  - (a) a Gantt chart for the Work acceptable to the Contract Administrator.
- D12.3 Further to D12.2, the schedule shall clearly identify the start and completion dates of all of the following activities/tasks making up the Work as well as showing those activities/tasks on the critical path. For each block of watermain renewals, include:
  - (a) Installation of temporary services;
  - (b) Testing of temporary services;
  - (c) Construction of watermain renewals;
  - (d) Pressure Testing and Disinfections;
  - (e) Final tie-ins:
  - (f) Pavement restorations;
  - (g) Boulevard restorations.

#### **SCHEDULE OF WORK**

#### D13. COMMENCEMENT

- D13.1 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.
- D13.2 The Contractor shall not commence any Work on the Site until:
  - (a) the Contract Administrator has confirmed receipt and approval of:
    - (i) evidence of authority to carry on business specified in D7;
    - (ii) evidence of the workers compensation coverage specified in C6.15;
    - (iii) the Safe Work Plan specified in D8;
    - (iv) evidence of the insurance specified in D9;
    - (v) the performance security specified in D10;
    - (vi) the security clearances specified in D11; and
    - (vii) the detailed work schedule specified in D12.
  - (b) the Contractor has attended a pre-construction meeting with the Contract Administrator, or the Contract Administrator has waived the requirement for a pre-construction meeting.
- D13.3 The Contractor shall commence the Work on the Site within seven (7) Working Days of receipt f the letter of intent.

#### D14. WORKING DAYS

- D14.1 Further to C1.1(gg), the Contract Administrator's determination of whether or not atmospheric nd Site conditions are such that a Working Day is deemed to have elapsed may be based at one time on one type of work while at another time a Working Day may be based on another type of work. When more than one type of major work is involved, the quantity of equipment that must be able to work in order to meet the requirements of a Working Day may vary considerably from that specified in the General Conditions.
- D14.2 In the event that incidental work is behind schedule which, in the opinion of the Contract Administrator, should have been or could have been carried out by the Contractor in conjunction with or immediately following work of a major type, the City hereby reserves the right to charge Working Days on the incidental work until such time as it is up to schedule.
- D14.3 When the major type of work involves restoration of the site to the condition it was prior to rainfall, Working Days shall not be charged.
- D14.4 The Contract Administrator will furnish the Contractor with a daily record for each major type of work showing various information concerning the equipment, the time it worked, could have worked and Working Days charged. This report is to be signed each day by an authorized representative of the Contractor.

#### D15. SEQUENCE OF WORK

- D15.1 Further to C 6.1, the sequence of work shall comply with the following:
- D15.1.1 The Contractor shall not commence work on the watermain renewal on Pembina Highway, Jubilee Avenue or Parker Avenue east of the west limit of Pembina Highway, until after June 20, 2010.

#### D16. CRITICAL STAGES

- D16.1 The Contractor shall achieve critical stages of the Work in accordance with the following requirements:
  - (a) Construction of the Work on Jubilee Avenue must be complete, including testing and restoration by July 16, 2010.
  - (b) Construction of the Work on Polson Bay first west of Sinclair Street and Polson Bay first east of McPhillips Street, must be complete, including testing and restoration by June 14, 2010.
  - (c) Construction of the Work on Donwood Drive must be complete, including testing and restoration by July 19, 2009.

#### D17. SUBSTANTIAL PERFORMANCE

- D17.1 The Contractor shall achieve Substantial Performance within forty (40) consecutive Working Days of the commencement of the Work as specified in D13.
- 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 reinspected.
- 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 D13.
- 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 reinspected.
- 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 any Critical Stage in accordance with the Contract by the dates stated in D16, the Contractor shall pay the City one thousand dollars (\$1,000) per Working Day for each and every Working Day following the dates fixed for Critical Stages during which such failure continues.
- D19.2 If the Contractor fails to achieve Substantial Performance in accordance with the Contract by the day fixed herein for Substantial Performance, the Contractor shall pay the City one thousand dollars (\$1000) per Working Day for each and every Working Day following the day fixed herein for Substantial Performance during which such failure continues.
- D19.3 If the Contractor fails to achieve Total Performance in accordance with the Contract by the day fixed herein for Total Performance, the Contractor shall pay the City five hundred dollars (\$500) per Working Day for each and every Working Day following the day fixed herein for Total Performance during which such failure continues.
- D19.4 The amounts specified for liquidated damages in D19.1, D19.2, and D19.3 are based on a genuine pre-estimate of the City's damages in the event that the Contractor does not achieve the Critical Stages, Substantial Performance or Total Performance by the days fixed herein for same
- D19.5 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) Landscaping Maintenance as specified in CW 3510.
- 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 the Site. These meetings shall be attended by a minimum of one representative of the Contract Administrator, one representative of the City and one representative of the Contractor. Each representative shall be a responsible person

capable of expressing the position of the Contract Administrator, the City and the Contractor respectively on any matter discussed at the meeting including the Work schedule and the need to make any revisions to the Work schedule. The progress of the Work will be reviewed at each of these meetings.

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 C6.24, the Contractor shall be the Prime Contractor and shall serve as, and have the duties of the Prime Contractor in accordance with The Workplace Safety and Health Act (Manitoba).

#### D23. WORK BY OTHERS

- D23.1 Work on or near the site will include but not necessarily be limited to:
  - (a) City of Winnipeg Public Works Department:
    - (i) Bid Opportunity No.1 2010 Province of Manitoba/City of Winnipeg 2010 Residential Street Renewal Program Polson Avenue and Various Other Locations. The City of Winnipeg Public Works Department will be constructing the following pavement rehabilitations:
      - (i) asphalt overlay on Polson Bay first east of McPhillips Street
      - (ii) asphalt overlay on Polson Bay first west of Sinclair Street.
      - (iii) Pavement rehabilitation by crack and seat method on Polson Street from Airlies Street to Sinclair Street
      - (iv) Asphalt Overlay on Donwood Drive from Pinecrest Bay west leg to Rothesay Street
    - (ii) Bid Opportunity No. 133-2010 Jubilee Avenue Overpass Rehabilitaion and Associated Roadworks. The City of Winnipeg Public Works Department will be reconstructing the Jubilee Overpass and reconstructing the pavement on and off ramps, including geometric modifications and asphalt pavement rehabilitation on Jubilee Avenue from Pembina Highway to the east limit of the right turn cut off from Jubilee Avenue onto the Jubilee Overpass.
    - (iii) The City of Winnipeg Public Works Department will be constructing a multiuse pathway on Jubilee Avenue from Pembina Highway to Cockburn Street.
    - (iv) City of Winnipeg Traffic Signals, reconstruction of the traffic signals at the intersection of the new approach ramps to the Jubilee Overpass and Jubilee Avenue.

#### D24. WORK PRACTICES ON ASBESTOS-CEMENT PIPE

- D24.1 Further to C.6.26(d), the Contractor's attention is directed to the possible health dangers associated with working with asbestos cement pipe and all work associated with the existing AC watermains shall conform to the following publications:
- D24.1.1 "Work Practices for Asbestos-Cement Pipe", AWWA No. M16, published by the American Water Works Association.
- D24.1.2 "Recommended Work Practices for AC Pipe", 1977, published by the AC Pipe producers Association.

#### D25. TRAFFIC MANAGEMENT

D25.1 Traffic control shall be carried out in accordance with clause 3.7 of CW 1130.

- D25.2 Further to D25.1, should the Public Works Department require that Work on Regional Streets be carried out at night, on Sundays, on Public Holidays, or that work be restricted or suspended during peak traffic hours, the Contractor shall comply without additional compensation being considered to meet that requirements.
- D25.3 Regional Streets on this project are:
  - (a) Pembina Highway
  - (b) Jubilee Avenue
- D25.4 Further to D25.1 and D25.2 on Regional Streets construction activities shall be restricted as follows:
  - (a) Pembina Highway
    - (i) The north bound curb lane may be closed to traffic.
    - (ii) Maintain two north bound thru lanes at all times.
    - (iii) Maintain two south bound thru lanes at all times.
    - (iv) The right turn cut-off and turning lane to Jubilee Avenue Must remain open to thru traffic at all times. Maintain a minimum 3.35m wide lane for turning traffic. If required for the Contractor's construction activity, construct temporary widening of the right turn cut off to maintain a 3.35m wide lane.
    - (v) Maintain access to 960 Pembina Highway (Fountain Tire) at all times.
    - (vi) The on and off ramps from the Jubilee Overpass must remain open at all times.
    - (vii) If the Contractor requires an additional lane be closed, then the second lane closure must be done only on a Saturday, Sunday or public holidays.
  - (b) Jubilee Avenue
    - (i) West bound: no lane closures will be permitted between the hours of 07:00 and 09:00 and 15:30 and 17:30 on any day except Saturdays, Sundays and public holidays. Between the hours of 09:00 and 15:30 maintain one west bound lane. Excavations or pavement restorations must be plated between the hours of 07:00 and 09:00 and 15:30 and 17:30 on any day except Saturdays, Sundays and public holidays.
  - (c) All lane closures on Jubilee Avenue are to be coordinated with the Jubilee Avenue Overpass and Related Roadworks project lane closures. At no time will a lane closure be allowed if the adjacent lane is closed for work project work of another contract. The Contractor will be responsible for all signage related to the closure and securing of his work area or diversion of traffic around his work area. All other regulatory or detour signage will be completed by the City of Winnipeg Traffic Services Department.
- D25.5 Maintain access to private approaches at all times.
- D25.6 Maintain access for public transit in each direction at the following locations:
  - (a) Donwood Drive
- D25.7 Further to Section 3.6 of CW 1130 of the General Requirements, the Contractor shall maintain safe pedestrian crossing at intersections at all times.
  - (a) Except as noted below, only one pedestrian crossing at an intersection is to be blocked by construction at any one time. If more than one pedestrian crossing must be blocked by construction at an intersection at the same time, the Contractor shall provide flag persons to safely escort pedestrians across the intersection.
  - (b) The Contractor shall leave pedestrian crossing locations safe and free of equipment that may hamper pedestrians when no construction activities are being performed at a particular crossing location.

D25.8 The Contractor shall not park company or private vehicles inside the barricaded work zone in a manner that will block sightlines for vehicles and pedestrians approaching and crossing intersections.

#### **MEASUREMENT AND PAYMENT**

#### D26. PAYMENT

D26.1 Further to C12, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

#### D27. WATER USED ON CITY OF WINNIPEG CONSTRUCTION PROJECTS

D27.1 Further to Section 3.7 of CW 1120, charges incurred for the permit and water meters shall be paid for by the Contractor when taken out. The Contractor shall forward the invoice to the Contract Administrator for reimbursement. The billing for water usage sent to the Contractor shall be forwarded to the Contract Administrator for payment. The Bid Opportunity number shall be noted on each permit.

#### **WARRANTY**

#### D28. WARRANTY

D28.1 Warranty is as stated in C13.

### **FORM H1: PERFORMANCE BOND** (See D10)

KNOW ALL	MENI DV THECE	DDECENITO THAT

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

KNOW ALL MEN BY THESE PRESENTS THAT		
(hereinafter called the "Principal"), and		
(hereinafter called the "Surety"), are held and firmly bound unto <b>THE CITY OF WINNIPEG</b> (hereinafted the "Obligee"), in the sum of	, after	
dollars (\$	)	
of lawful money of Canada to be paid to the Obligee, or its successors or assigns, for the payment of wl sum the Principal and the Surety bind themselves, their heirs, executors, administrators, successors assigns, jointly and severally, firmly by these presents.		
WHEREAS the Principal has entered into a written contract with the Obligee for		
BID OPPORTUNITY NO. 212-2010		
2010 WATERMAIN RENEWALS - CONTRACT 9		
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:		
<ul> <li>carry out and perform the Contract and every part thereof in the manner and within the times forth in the Contract and in accordance with the terms and conditions specified in the Contract;</li> <li>perform the Work in a good, proper, workmanlike manner;</li> <li>make all the payments whether to the Obligee or to others as therein provided;</li> <li>in every other respect comply with the conditions and perform the covenants contained in Contract; and</li> <li>indemnify and save harmless the Obligee against and from all loss, costs, damages, claims, demands of every description as set forth in the Contract, and from all penalties, assessme claims, actions for loss, damages or compensation whether arising under "The Work Compensation Act", or any other Act or otherwise arising out of or in any way connected with performance or non-performance of the Contract or any part thereof during the term of Contract and the warranty period provided for therein;</li> </ul>	the and ents, kers the	
THEN THIS OBLIGATION SHALL BE VOID, but otherwise shall remain in full force and effect. The Su shall not, however, be liable for a greater sum than the sum specified above.	rety	
AND IT IS HEREBY DECLARED AND AGREED that the Surety shall be liable as Principal, and nothing of any kind or matter whatsoever that will not discharge the Principal shall operate as a discharge release of liability of the Surety, any law or usage relating to the liability of Sureties to the cont notwithstanding.	arge	
IN WITNESS WHEREOF the Principal and Surety have signed and sealed this bond the		

SIGNED AND SEALED in the presence of:	(Name of Principal)	(01)
(Witness as to Principal if no seal)	Per:	(Seal)
	(Name of Surety)  By:  (Attorney-in-Fact)	(Seal)

## FORM H2: IRREVOCABLE STANDBY LETTER OF CREDIT (PERFORMANCE SECURITY) (See D10)

(Date)	
Interna Legal 185 Ki	y of Winnipeg I Services Department Services Division ng Street, 3rd Floor eg MB R3B 1J1
RE:	PERFORMANCE SECURITY - BID OPPORTUNITY NO. 212-2010
	2010 WATERMAIN RENEWALS - CONTRACT 9
Pursua	nt to the request of and for the account of our customer,
(Name	f Contractor)
(Addres	of Contractor)
	REBY ESTABLISH in your favour our irrevocable Standby Letter of Credit for a sum not exceeding aggregate
	Canadian dollars.
demar Letter payme	candby Letter of Credit may be drawn on by you at any time and from time to time upon writter d for payment made upon us by you. It is understood that we are obligated under this Standby of Credit for the payment of monies only and we hereby agree that we shall honour your demand fo not without inquiring whether you have a right as between yourself and our customer to make such d and without recognizing any claim of our customer or objection by the customer to payment by us.
	nount of this Standby Letter of Credit may be reduced from time to time only by amounts drawn upor u or by formal notice in writing given to us by you if you desire such reduction or are willing that it be
Partial	drawings are permitted.
	gage with you that all demands for payment made within the terms and currency of this Standby of Credit will be duly honoured if presented to us at:
(Addres	)
and w	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 L	etter 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 AND DRAWINGS

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

Drawing No.	<u>Drawing Name/Title</u>
	Cover Sheet
D-12005	Polson Bay 1 <sup>st</sup> East of McPhillips St
D-12006	Polson Bay 1 <sup>st</sup> West of Sinclair St
D-12007	Donwood Drive - Pinecrest Bay West leg to Station 1+110
D-12008	Donwood Drive – Station 1+110 to Rothesay Street
D-12009	Elaine Place
D-12010	Parker Avenue – Pembina Highway to 55m West of Pembina Highway
D-12011	Pembina Highway – Merriam Boulevard to Jubilee Avenue
D-12012	Jubilee Avenue – Pembina Highway to 110m East of Pembina Highway

#### **GENERAL REQUIREMENTS**

#### E2. SURFACE RESTORATIONS

- E2.1 Further to Section 3.3 of CW 1130 of the General Requirements, permanent surface restorations including all sodding and pavement works for each renewal shall be completed within ten (10) working days from the date that the renewal is completed.
- Where excavations are to be restored with 24-hour early opening concrete, the Contractor shall make it his first priority to; backfill the excavation; pour the 24-hour concrete; where required, lay asphalt as soon as the 24 hour curing period is up and open the closed lane to traffic.

#### E3. PROVISIONAL ITEMS

- E3.1 The Provisional Items listed in the Schedule of Prices are a part of the Contract.
- E3.2 The Contractor shall not perform Work included in the Provisional Items without prior authorization from the Contract Administrator. All Work included in the Provisional Items will be carried out within the construction areas shown on the drawings.
- E3.3 Notwithstanding C:7, the City reserves the right to diminish all or any portion of the items of Work listed in the Provisional Items and no claim shall be made for damages on grounds of loss of anticipated profit or for any other reason.

#### E4. PROTECTION OF EXISTING TREES

- E4.1 The Contractor shall take the following precautionary steps to avoid damage from his construction activities to existing boulevard trees within and adjacent to the limits of constructions:
  - (a) The Contractor shall not stockpile materials and soil or park vehicles and equipment on boulevards within 2 metres of any tree.
  - (b) Mature tree trunks shall be strapped with 25 x 150 x 2400 (1" x 6" x 8") wood planks. Smaller trees shall be similarly protected using appropriately sized wood planks.
    - (i) Excavations shall be carried out in such a manner so as to minimize damage to existing root systems. Roots over 50 mm in diameter, which must be cut to facilitate an excavation shall be neatly pruned with a saw prior to excavation and coated with an appropriate wound dressing to prevent infection.
    - (ii) Work on site shall be carried out in such a manner so as to minimize damage to existing tree branches. Where damage to tree branches does occur, the Contractor shall neatly prune the damaged branch.
  - (c) American elm trees are not to be pruned between April 1<sup>st</sup> and August 1<sup>st</sup> and Siberian elm trees between April 1<sup>st</sup> and July 1<sup>st</sup> of any year under provisions of The Dutch Elm Disease Act.
- E4.2 All damages to existing trees caused by the Contractor's construction activities shall be repaired to the requirements and satisfaction of the City of Winnipeg, Parks and Recreation Department, Forestry Branch.
- E4.3 No separate measurement or payment will be made for protection of trees. It shall be considered incidental to the Contract Work.

#### E5. RESTORATION ON JUBILEE AVENUE

- E5.1 On the south boulevard of Jubilee Avenue from Station 2+26 to Station 3+40 boulevard restoration with topsoil and sod will not be required. The Contractor will be required to grade all disturbed boulevard area on the south side of Jubilee Avenue to 100 millimetres below final grade as directed by the Contract Administrator.
- E5.2 Full restoration of pavements is required where lanes are required to be reopened to traffic prior to commencement of pavement rehabilitation and modification under Bid Opportunity 133-2010.

#### E6. PARTIAL SLAB PATCHES

Partial Slab Patches shall be constructed, measured and paid for as per CW 3230 except that no differentiation will be made for class of patch. Furthermore, no separate measurement or payment will be made for Drilled Dowels or Tie Bars, the cost for which shall be included in the prices bid for Partial Slab Patches.

#### E7. MISCELLANEOUS CONCRETE SLAB RENEWALS - SIDEWALKS

E7.1 Construct miscellaneous concrete slab renewals in accordance with CW 3235. Miscellaneous Concrete slab renewals for sidewalk shall be measured on an area basis and paid for at the Contract Unit Price per square metre for "Miscellaneous Concrete Slab Renewals – Sidewalk" in Form B of the Bid Submission.

#### E8. EXPOSING EXISTING UTILITIES

E8.1 Where indicated on the drawings or as directed by the Contract Administrator, expose existing utilities by vacuum excavation methods. Backfill test excavations to the same standard as specified for the watermain renewal. Where these test excavations occur within pavement limits, plate excavations to allow for reopening of lanes to traffic prior to completing permanent

pavement restoration. No separate measurement or payment shall be made for test excavations, backfilling, or plating excavations prior to permanent restoration. Pavement restorations will be measured and paid for as specified in E6.

#### E9. STREET LIGHT CABLE

#### E9.1 Construction Methods

- E9.1.1 At locations where street lighting cable is to be replaced as directed by the Contract Administrator, the Contractor shall, after completion of backfilling and grading of watermain trenches, construct a trench suitable for the placement of street lighting cable or install a 50 mm HDPE conduit by coring methods. The HDPE conduit will be supplied by the street lighting utility at no cost to the Contractor.
- E9.1.2 The trench or cored pipe shall be constructed on the same alignment as the street light bases or as directed by the Contract Administrator. The bottom of the trench shall be between 600 mm and 750 mm below the top of the curb and shall be no more than 150 mm in width. The invert of cored pipe shall be 600 mm to 750 mm below the top of the curb.
- E9.1.3 The Contractor shall provide 48 hours notice to the Contract Administrator prior to the commencement of trenching or coring operations in order to allow coordination of the cable installation by the street lighting utility.
- E9.1.4 Upon completion of cable installations by the street lighting utility the Contractor shall backfill, compact and grade the boulevard sections disturbed. Backfill shall be Class 4 Backfill in accordance with CW 2030.
- E9.1.5 Sodding boulevards disturbed during street light cable installation will be incidental to the Work.

#### E9.2 Method of Measurement and Payment

#### E9.2.1 Street Light Cable Trenching

(a) Trenching for the installation of street lighting cable shall be measured on a linear metre basis based on measurements take by the Contract Administrator. Payment shall be made at the Contract Unit Price for "Street Light Cable – Trenching", measured as specified herein which price shall be payment in full for performing all operations and supply all materials and all other items incidental to the Work included in this specification.

#### E9.2.2 Coring of HDPE Conduit

(a) The coring and installation of HDPE conduit shall be measured on a linear metre basis from shaft face to shaft face based on measurements taken by the Contract Administrator. Payment shall be made at the Contract Unit Price for "Street Light Cable – Coring of HDPE Conduit", measured as a specified herein which price shall be payment in full for performing all operations and supplying all materials and all other items incidental to the Work included in this specification.

#### E10. LONG HYDRANT LEADS

- E10.1 Further to CW 2110 clause 4.3.4, hydrant assemblies on long hydrant leads shall include:
  - (a) 300x300x200 mm tee, 200 mm valve, and all 150 mm watermain.
- E10.2 All 200 mm watermain and 200x150 mm reducers will be measured separately as specified in CW 2110.

#### E11. TEMPORARY SURFACE RESTORATIONS

- E11.1 Further to clause 3.3 of CW 1130, where temporary surface restorations must be made to reopen lanes to traffic, the Contractor shall temporarily restore surfaces as follows:
  - (a) Backfill excavation with Class 1 Backfill extending to the underside of cold-mix asphalt as specified below.
  - (b) Cap excavations in pavement with a minimum 50 millimetre thick layer of cold-mix asphalt.
- E11.2 Contractor shall maintain temporarily restored surfaces until permanent restoration is complete.
- E11.3 Method of Measurement and Payment
  - (a) Temporary surface restorations will be measured on an area basis and be paid for at the Contract Unit Price per square metre for "Temporary Surface Restorations", measured as specified herein, which price shall be payment in full for supplying all materials and performing all operations herein described and all other items incidental to the work included in this Specification.

#### E12. OIL AND GAS RESISTANT GASKETS

- Further to CW 2110, where indicated on the construction drawings the Contractor shall install watermains with oil and gas resistant gaskets. Within the limits shown all pipe, fittings, and couplings shall be installed with oil and gas resistant gaskets.
- E12.2 Oil and gas resistant gaskets shall be installed on all watermain pipe and fittings shown on Drawings D-12010, D12011 and D-12012.
- E12.3 Gaskets shall be oil and gas resistant Nitrile conforming to ASTM F477 and shall be supplied by the pipe manufacturer.
- E12.4 No separate measurement or payment shall be made for the supply and installation of oil and gas resistant gaskets. Include in the cost of the bid price for watermain renewals.

#### E13. METER PIT ABANDONMENT

- E13.1 Description
  - (a) This Specification shall cover the abandonment of an existing cast-in-place, reinforced concrete meter pits.
- E13.2 Construction Methods
  - (a) Demolish pit roof.
  - (b) Demolish pit walls and floor to a minimum of 1.5 m below grade or as required for the new watermain installation as follows:
    - (i) Remove walls and floor to 300 mm below the proposed watermain invert for 1.0 m either side of the centerline of the proposed watermain.
  - (c) Prepare foundation and bedding for watermain installation and install watermain in accordance with CW 2030 and CW 2110.
  - (d) Fill remaining pit and excavation with Class 3 Backfill in accordance with CW 2030.

#### E13.3 Measurement and Payment

(a) Abandonment of existing meter pits shall be measured on a unit basis and paid for at the Contract Unit Price for "Abandonment of Existing Meter Pits". The number of units to be paid for will be the total number of meter pits abandoned and backfilled in accordance with these specifications.

#### E14. PATCHING OF EXISTING FLEXIBLE PAVEMENT

#### E14.1 Description

(a) This specification covers the patching of existing concrete pavements that will be rehabilitated by crack and seat methods.

#### E14.2 Construction Methods

- (a) Backfill of excavations for watermain installations to be Class 2 backfill. Backfill to a depth of 350 millimetres below the top of the existing pavement.
- (b) Place and compact 50 mm crushed limestone sub-base material in accordance with CW 3110 to a 300 millimetres compacted depth. Compact to a minimum of 100% Standard Proctor Density.
- (c) Place and compact Type 1A asphalt material to a 50 millimetres compacted depth matching the top of the existing concrete pavement in accordance with CW 3410.

#### E14.3 Measurement And Payment

(a) 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.

#### E15. REMOVAL OF CONTAMINATED SOIL

#### E15.1 Description

(a) Further to CW 1130 Clause 3.4, this specification outlines the requirements for the disposal of hydrocarbon contaminated soil.

#### E15.2 Construction Methods

- (a) Excavate test pits in advance of construction to allow for sampling and determination of the level of contaminants.
- (b) Soils requiring removal and disposal will be identified by the Contract Administrator.
- (c) Handle all contaminated soils in accordance with provincial regulations.
- (d) All hydrocarbon impacted soil removed as part of the construction works shall be transported directly to a Licensed Waste Disposal Grounds in accordance with provincial regulations.
- (e) Where Class 5 backfill is specified, backfill excavations with suitable excess trench material from other excavations on site. No additional compensation will be considered for management of backfill materials.

#### E15.3 Measurement and Payment

(a) Disposal of hydrocarbon contaminated soil at a Licensed Waste Disposal Grounds in accordance with provincial regulations will be measured on a volume basis paid for at the Contract Unit Price per cubic metre for "Disposal of Hydrocarbon Contaminated Soil". The volume to be paid will be calculated from measurements of the trench taken by the Contract Administrator. The volume to be paid for will be the total number of cubic metres of hydrocarbon material excavated, and disposed of in accordance with this specification, accepted and measured by the Contract Administrator.

#### E16. PARKER AVENUE ACCESS

E16.1 Further to CW 1130, access to Parker Avenue shall be off Pembina Highway. The Contractor will be required to an construct access road to suit his needs from Pembina Highway to the Parker Avenue pavement. Following the completion of construction the Contractor shall remove the access road and restore the area to a condition equal to or better than the original condition.

- E16.2 The Contract shall coordinate his access requirements with the access requirements and construction of the Jubilee Overpass works.
- E16.3 No measurement or payment will be made for the construction, removal of the access road and final restoration. Include costs in the price bid for construction of watermain renewals.