

THE CITY OF WINNIPEG

BID OPPORTUNITY

BID OPPORTUNITY NO. 681-2015

CITY OF WINNIPEG REGIONAL STREET PROGRAM – PORTAGE AVENUE REHABILITATION, SIDEWALK STREETSCAPING AND OVERLAY FROM MCGEE STREET TO MEMORIAL BOULEVARD

TABLE OF CONTENTS

PARIA	- RID 20RMI22ION	
Forn Forn	n A: Bid n B: Prices n G1: Bid Bond and Agreement to Bond n G2: Irrevocable Standby Letter of Credit and Undertaking	1 4 27 29
PART B	- BIDDING PROCEDURES	
B2. B3. B4. B5. B6. B7. B8. B9. B10. B11. B12. B13. B14. B15.	Contract Title Submission Deadline Enquiries Confidentiality Addenda Substitutes Bid Components Bid Prices Disclosure Qualification Bid Security Opening of Bids and Release of Information Irrevocable Bid Withdrawal of Bids Evaluation of Bids Award of Contract	1 1 1 1 1 2 3 4 4 5 5 6 6 7 7 7 8
PART C	- GENERAL CONDITIONS	
C0.	General Conditions	1
PART D	- SUPPLEMENTAL CONDITIONS	
D2. D3. D4. D5. D6.	General Conditions Scope of Work Contract Administrator Contractor's Supervisor Ownership of Information, Confidentiality and Non Disclosure Notices Furnishing of Documents	1 1 2 2 2 3 3
D8. D9. D10 D11 D12	Authority to Carry on Business Safe Work Plan Insurance Performance Security Subcontractor List Detailed Work Schedule	3 3 3 4 4 5
	edule of Work . Commencement	5
D15 D16 D17 D18 D19 D20 D21	. Commencement . Working Days . Restricted Work Hours . Work By Others . Sequence of Work . Critical Stages . Substantial Performance . Total Performance . Liquidated Damages	5 6 6 6 7 7 7

D23. Scheduled Maintenance D24. Accelerated Completion	7 8
Control of Work D25. Job Meetings D26. Prime Contractor – The Workplace Safety and Health Act (Manitoba) D27. The Workplace Safety and Health Act (Manitoba) – Qualifications	8 9 9
Measurement and Payment D28. Payment	9
Warranty D29. Warranty	9
Form H1: Performance Bond Form H2: Irrevocable Standby Letter of Credit Form J: Subcontractor List	10 12 14
PART E - SPECIFICATIONS	
General	
E1. Applicable Specifications and Drawings	1
E2. Office Facilities	1
E3. Protection Of Existing Trees E4. Traffic Control	2
E5. Traffic Management	3
E6. Pedestrian Safety	3
E7. Water Obtained From the City	2 2 3 3 3
E8. Surface Restorations	3
E9. Infrastructure Signs	3
E10. Supply and Installation of Pavement Repair Fabric	4
E11. Installation of Interlocking Paving Stones	4
E12. Removal and Re-Installation of Bike Racks	5
E13. Adjustment of Utility Manhole Frames E14. Tree Wells	6 7
E14. Thee wells E15. Hydro Excavation	8
E16. Operating Constraints for Work in Close Proximity to the 115 kv Hydro Line and the	_
High Pressure Gas Line	9

PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 CITY OF WINNIPEG REGIONAL STREET PROGRAM – PORTAGE AVENUE REHABILITATION, SIDEWALK STREETSCAPING AND OVERLAY FROM McGEE STREET TO MEMORIAL BOULEVARD

B2. SUBMISSION DEADLINE

- B2.1 The Submission Deadline is 12:00 noon Winnipeg time, August 14, 2015.
- 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. 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. CONFIDENTIALITY

- B4.1 Information provided to a Bidder by the City or acquired by a Bidder by way of further enquiries or through investigation is confidential. Such information shall not be used or disclosed in any way without the prior written authorization of the Contract Administrator. The use and disclosure of the confidential information shall not apply to information which:
 - (a) was known to the Bidder before receipt hereof; or
 - (b) becomes publicly known other than through the Bidder; or
 - (c) is disclosed pursuant to the requirements of a governmental authority or judicial order.
- B4.2 The Bidder shall not make any statement of fact or opinion regarding any aspect of the Bid Opportunity to the media or any member of the public without the prior written authorization of the Contract Administrator.

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 http://www.winnipeg.ca/matmgt/bidopp.asp
- B5.2.2 The Bidder is responsible for ensuring that he/she has received all addenda and is advised to check the Materials Management Division website for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.
- 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/her sole discretion grant approval for the use of a substitute as an "approved equal" or as an "approved alternative", or may refuse to grant approval of the substitute.
- B6.6 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, to the Bidder who requested approval of the substitute.
- B6.6.1 The Contract Administrator will issue an Addendum, disclosing the approved materials, equipment, methods and products to all potential Bidders. The Bidder requesting and obtaining the approval of a substitute shall be responsible for disseminating information regarding the approval to any person or persons he/she wishes to inform.
- 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/her Total Bid Price upon the specified item but may also indicate an alternative price based upon the approved alternative. Such alternatives will be evaluated in accordance with B16.
- 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, in accordance with B7.6, deviations inconsistent with the Bid Opportunity document shall be evaluated in accordance with B16.1(a).

B7. BID COMPONENTS

- B7.1 The Bid shall consist of the following components:
 - (a) Form A: Bid;
 - (b) Form B: Prices, hard copy;
 - (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.
- B7.4.2 A hard copy of Form B: Prices must be submitted with the Bid. 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.
- 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 B16.1(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/her own name, his/her name shall be inserted;
 - (b) if the Bidder is a partnership, the full name of the partnership shall be inserted;
 - (c) if the Bidder is a corporation, the full name of the corporation shall be inserted;
 - (d) if the Bidder is carrying on business under a name other than his/her own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.
- 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/her own name, it shall be signed by the Bidder;
 - (b) if the Bidder is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;
 - (c) if the Bidder is a corporation, it shall be signed by its duly authorized officer or officers 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/her own, it shall be signed by the registered owner of the business name, or by the registered owner's authorized officials if the owner is a partnership or a corporation.
- 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.
- B9.1.1 For the convenience of Bidders, and pursuant to B7.4.2 and B16.4.2, 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 Division website at http://www.winnipeg.ca/matmgt/
- 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 Payments to Non-Resident Contractors are subject to Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).

B10. DISCLOSURE

- B10.1 Various Persons provided information or services with respect to this Work. In the City's opinion, this relationship or association does not create a conflict of interest because of this full disclosure. Where applicable, additional material available as a result of contact with these Persons is listed below.
- B10.2 The Persons are:
 - (a) N/A

B11. QUALIFICATION

- B11.1 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.
- B11.2 The Bidder and any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:
 - (a) be responsible and not be suspended, debarred or in default of any obligations to the City. A list of suspended or debarred individuals and companies is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at http://www.winnipeg.ca/matmgt/debar.stm
- B11.3 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);
- B11.4 Further to B11.3(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 copy of their valid Manitoba COR certificate and Letter of Good Standing (or Manitoba equivalency) as issued under the Certificate of Recognition (COR) Program administered by the Construction Safety Association of Manitoba or by the Manitoba Heavy Construction Association's WORKSAFELY™ COR™ Program; or
 - (b) a copy of their valid Manitoba SECOR™ certificate and Letter of Good Standing (or Manitoba equivalency) as issued under the Small Employer Certificate of Recognition Program (SECOR™) administered by the Construction Safety Association of Manitoba or by the Manitoba Heavy Construction Association's WORKSAFELY™ COR™ Program; or
 - (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 Division website at http://www.winnipeg.ca/matmgt/.
- B11.5 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.

B11.6 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.

B12. BID SECURITY

- B12.1 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.
- B12.1.1 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.
- B12.1.2 All signatures on bid securities shall be original.
- B12.1.3 The Bidder shall sign the Bid Bond.
- B12.1.4 The Surety shall sign and affix its corporate seal on the Bid Bond and the Agreement to Bond.
- B12.2 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.
- B12.2.1 Where the bid security provided by the successful Bidder is in the form of a certified cheque or draft pursuant to B12.1(c), it will be deposited and retained by the City as the performance security and no further submission is required.
- B12.2.2 The City will not pay any interest on certified cheques or drafts furnished as bid security or subsequently retained as performance security.
- B12.3 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.

B13. OPENING OF BIDS AND RELEASE OF INFORMATION

- B13.1 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.
- B13.1.1 Bidders or their representatives may attend.
- B13.1.2 Bids determined by the Manager of Materials, or his/her designate, to not include the bid security specified in B12 will not be read out.
- B13.2 Following the submission deadline, the names of the Bidders and their Total Bid Prices (unevaluated, and pending review and verification of conformance with requirements) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at

- The City of Winnipeg, Corporate Finance, Materials Management Division website at http://www.winnipeg.ca/matmqt/
- B13.3 After award of Contract, the name(s) of the successful Bidder(s) and the Contract amount(s) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at http://www.winnipeg.ca/matmgt/
- B13.4 The Bidder is advised that any information contained in any Bid may be released if required by City policy or procedures, by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law.

B14. IRREVOCABLE BID

- B14.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 11 of Form A: Bid.
- B14.2 The acceptance by the City of any Bid shall not release the Bids of the next two lowest evaluated responsive Bidders and these Bidders shall be bound by their Bids on such Work 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.

B15. WITHDRAWAL OF BIDS

- B15.1 A Bidder may withdraw his/her Bid without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.
- B15.1.1 Notwithstanding C23.3, the time and date of receipt of any notice withdrawing a Bid shall be the time and date of receipt as determined by the Manager of Materials.
- B15.1.2 The City will assume that any one of the contact persons named in Paragraph 3 of Form A: Bid or the Bidder's authorized representatives named in Paragraph 12 of Form A: Bid, and only such person, has authority to give notice of withdrawal.
- B15.1.3 If a Bidder gives notice of withdrawal prior to the Submission Deadline, the Manager of Materials will:
 - (a) retain the Bid until after the Submission Deadline has elapsed;
 - (b) open the Bid to identify the contact person named in Paragraph 3 of Form A: Bid and the Bidder's authorized representatives named in Paragraph 12 of Form A: Bid; and
 - (c) if the notice has been given by any one of the persons specified in B15.1.3(b), declare the Bid withdrawn.
- B15.2 A Bidder who withdraws his/her Bid after the Submission Deadline but before his/her Bid has been released or has lapsed as provided for in B14.2 shall be liable for such damages as are imposed upon the Bidder by law and subject to such sanctions as the Chief Administrative Officer considers appropriate in the circumstances. The City, in such event, shall be entitled to all rights and remedies available to it at law, including the right to retain the Bidder's bid security.

B16. EVALUATION OF BIDS

- B16.1 Award of the Contract shall be based on the following bid evaluation criteria:
 - (a) compliance by the Bidder with the requirements of the Bid Opportunity, or acceptable deviation therefrom (pass/fail);
 - (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B11 (pass/fail);
 - (c) Total Bid Price;

- (d) economic analysis of any approved alternative pursuant to B6.
- B16.2 Further to B16.1(a), the Award Authority may reject a Bid as being non-responsive if the Bid is incomplete, obscure or conditional, or contains additions, deletions, alterations or other irregularities. The Award Authority may reject all or any part of any Bid, or waive technical requirements or minor informalities or irregularities, if the interests of the City so require.
- B16.3 Further to B16.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in his/her Bid or in other information required to be submitted, that he/she is responsible and qualified.
- B16.4 Further to B16.1(c), the Total Bid Price shall be the sum of the quantities multiplied by the unit prices for each item shown on Form B: Prices.
- B16.4.1 Further to B16.1(a), in the event that a unit price is not provided on Form B: Prices, the City will determine the unit price by dividing the Amount (extended price) by the approximate quantity, for the purposes of evaluation and payment.
- B16.4.2 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.

B17. AWARD OF CONTRACT

- B17.1 The City will give notice of the award of the Contract or will give notice that no award will be made.
- B17.2 The City will have no obligation to award a Contract to a Bidder, even though one or all of the Bidders are determined to be responsible and qualified, and the Bids are determined to be responsive.
- B17.2.1 Without limiting the generality of B17.2, the City will have no obligation to award a Contract where:
 - (a) the prices exceed the available City funds for the Work;
 - (b) the prices are materially in excess of the prices received for similar work in the past;
 - (c) the prices are materially in excess of the City's cost to perform the Work, or a significant portion thereof, with its own forces;
 - (d) only one Bid is received; or
 - (e) in the judgment of the Award Authority, the interests of the City would best be served by not awarding a Contract.
- B17.3 Where an award of Contract is made by the City, the award shall be made to the responsible and qualified Bidder submitting the lowest evaluated responsive Bid, in accordance with B16.
- B17.3.1 Following the award of contract, a Bidder will be provided with information related to the evaluation of his/her Bid upon written request to the Contract Administrator.

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 http://www.winnipeg.ca/matmgt/gen_cond.stm
- C0.2 A reference in the Bid Opportunity to a section, clause or subclause with the prefix "C" designates a section, clause or subclause in the *General Conditions for Construction*.

PART D - SUPPLEMENTAL CONDITIONS

GENERAL

D1. GENERAL CONDITIONS

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

D2. SCOPE OF WORK

- D2.1 The Work to be done under the Contract shall consist of:
 - (a) Pavement Rehabilitation and Related Works
 - (i) Part A Eastbound Portage Avenue from Maryland Street to Furby Street.
 - (ii) Part B Westbound Portage Avenue from McGee Street to Furby Street.
 - (b) Streetscaping and Related Works
 - (i) Part C Eastbound Portage Avenue from Furby Street to Spence Street.
 - (ii) Part D Westbound Portage Avenue from Furby Street to Young Street.
 - (c) Overlay and Related Works
 - (i) Part E Eastbound Portage Avenue from Furby Street to Memorial Boulevard.
 - (ii) Part F Westbound Portage Avenue from Furby Street to Memorial Boulevard.
- D2.2 The major components of the Work are as follows:
 - (a) Pavement Rehabilitation and Related Works
 - (i) Planing existing asphalt pavement
 - (ii) Replacement of existing catch basins and catch basin leads
 - (iii) Full depth concrete repairs of existing joints and slabs
 - (iv) Renewal of existing curbs in gutter lanes utilizing slip form paving equipment
 - (v) Adjustment of catch basins, sewer manholes, appurtenances, and utility manholes
 - (vi) Installation of street lighting conduit
 - (vii) Replacement of existing street lights (by others)
 - (viii) Renewal of existing sidewalk c/w Holland paving stone
 - (ix) Installation of detectable warning tiles
 - (x) Placement of asphalt overlay (Type 1A, average thickness 85 mm)
 - (xi) Boulevard restoration
 - (xii) Adjustment and/or Abandonment of existing Hydro manholes by others (Westbound Portage Avenue from McGee Street to Furby Street)
 - (xiii) Adjustment of existing MTS manholes by others (Westbound Portage Avenue from McGee Street to Furby Street)
 - (b) Streetscaping and Related Works
 - (i) Removal of existing paving stones, existing curb and sidewalk
 - (ii) Installation of street lighting conduit
 - (iii) Replacement of existing street lights (by others)
 - (iv) Construction of cast-in-place concrete structures (Transit signs)
 - (v) Construction of concrete curb and sidewalk c/w detectable warning tiles
 - (vi) Construction of tree vaults and wells
 - (vii) Installation of plant material
 - (viii) Placement of Holland paving stones
 - (ix) Installation and replacement of amenities (bike racks, concrete planters, etc.)

- (c) Overlay and Related Works
 - (i) Full depth concrete repairs of existing slabs and joints
 - (ii) Partial depth asphalt patching of existing joints
 - (iii) Adjustment of drainage inlets, water valves, manholes and catch basins
 - (iv) Curb and sidewalk repairs
 - (v) Planing of existing asphalt pavement (for headers)
 - (vi) Placement of asphalt overlay (average thickness 55 mm)

D3. CONTRACT ADMINISTRATOR

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

Kevin Rae, P. Eng.

Senior Transportation Engineer

Telephone No. 204 928-8430

Facsimile No. 204 284-2040

- D3.2 At the pre-construction meeting, Kevin Rae, P. Eng. will identify additional personnel representing the Contract Administrator and their respective roles and responsibilities for the Work.
- D3.3 Bids Submissions must be submitted to the address in B7.8

D4. CONTRACTOR'S SUPERVISOR

- D4.1 At the pre-construction meeting, the Contractor shall identify his/her designated supervisor and any additional personnel representing the Contractor and their respective roles and responsibilities for the Work.
- 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 twenty-four (24) hours a day to respond to an emergency.

D5. OWNERSHIP OF INFORMATION, CONFIDENTIALITY AND NON DISCLOSURE

- D5.1 The Contract, all deliverables produced or developed, and information provided to or acquired by the Contractor are the property of the City and shall not be appropriated for the Contractors own use, or for the use of any third party.
- D5.2 The Contractor shall not make any public announcements or press releases regarding the Contract, without the prior written authorization of the Contract Administrator.
- D5.3 The following shall be confidential and shall not be disclosed by the Contractor to the media or any member of the public without the prior written authorization of the Contract Administrator;
 - (a) information provided to the Contractor by the City or acquired by the Contractor during the course of the Work;
 - (b) the Contract, all deliverables produced or developed; and
 - (c) any statement of fact or opinion regarding any aspect of the Contract.
- D5.4 A Contractor who violates any provision of D5 may be determined to be in breach of Contract.

D6. NOTICES

- D6.1 Except as provided for in C23.2.2, all notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the Contractor shall be sent to the address or facsimile number identified by the Contractor in Paragraph 2 of Form A: Bid.
- D6.2 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the City, except as expressly otherwise required in D6.3 or elsewhere in the Contract, shall be sent to the attention of the Contract Administrator at the facsimile number identified in D3.1.
- D6.3 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications required to be submitted or returned to the City Solicitor shall be sent to the following facsimile number:

The City of Winnipeg
Legal Services Department
Attn: Director of Legal Services
Facsimile No.: 204-947-9155

D6.1 **Bids Submissions** must be submitted to the address in B7.8.

D7. FURNISHING OF DOCUMENTS

D7.1 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/her at cost.

SUBMISSIONS

D8. AUTHORITY TO CARRY ON BUSINESS

D8.1 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.

D9. SAFE WORK PLAN

- D9.1 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.
- D9.2 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 Division website at http://www.winnipeg.ca/matmgt/safety/default.stm

D10. INSURANCE

- D10.1 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) if applicable, Automobile Liability Insurance covering all motor vehicles, owned and operated and used or to be used by the Contractor directly or indirectly in the performance of the Work. The Limit of Liability shall not be less than \$2,000,000 inclusive for loss or damage including personal injuries and death resulting from any one accident or occurrence;
- (c) 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.
- D10.2 Deductibles shall be borne by the Contractor.
- D10.3 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 the C4.1 for the return of the executed Contract.
- D10.4 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.

D11. PERFORMANCE SECURITY

- D11.1 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.
- D11.1.1 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.
- D11.2 If the bid security provided in his/her Bid was not a certified cheque or draft pursuant to B12.1(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 C4.1 for the return of the executed Contract.

D12. SUBCONTRACTOR LIST

D12.1 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 C4.1 for the return of the executed Contract.

D13. DETAILED WORK SCHEDULE

- D13.1 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 the General Conditions for the return of the executed Contract.
- D13.2 The detailed work schedule shall consist of a Gantt chart for the Work acceptable to the Contract Administrator.
- D13.3 Further to D13.2, the Gantt chart shall show the time on a weekly basis, required to carry out the Work of each trade, or specification division. The time shall be on the horizontal axis, and the type of trade shall be on the vertical axis.

SCHEDULE OF WORK

D14. COMMENCEMENT

- D14.1 The Contractor shall not commence any Work until he/she is in receipt of a letter of intent from the Award Authority authorizing the commencement of the Work.
- D14.2 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 D8:
 - (ii) evidence of the workers compensation coverage specified in C6.15;
 - (iii) the twenty-four (24) hour emergency response phone number specified in D4.2.
 - (iv) the Safe Work Plan specified in D9;
 - (v) evidence of the insurance specified in D10;
 - (vi) the performance security specified in D11;
 - (vii) the subcontractor list specified in D12;
 - (viii) the detailed work schedule specified in D13.
 - (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.
- D14.3 The Contractor shall not commence the Work on Part A, Part C and Part E before September 8, 2015, and shall commence the Work on Site no later than September 15, 2015, as directed by the Contract Administrator and weather permitting.
- D14.4 The Contractor shall not commence the Work on Part B, Part D and Part F before May 24, 2016 and shall commence the Work on site no later than May 30, 2016 as directed by the Contract Administrator, weather permitting and contingent on the completion of Manitoba Hydro underground power vault work, described in D17.

D15. WORKING DAYS

- D15.1 Further to C1.1(jj);
- D15.1.1 The Contract Administrator will determine daily if a Working Day has elapsed and will record his/her 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/she agrees with the Contract Administrator's determination of the Working Days assessed for the report period.
- D15.1.2 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.

D16. RESTRICTED WORK HOURS

D16.1 Further to clause 3.10 of CW 1130, the Contractor shall require written permission forty-eight (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.

D17. WORK BY OTHERS

- D17.1 Work by others on or near the Site will include but not necessarily be limited to:
 - (a) City of Winnipeg Transit Department removal and replacement of bus shelters and benches;
 - (b) City of Winnipeg Traffic Signals Department Installation of traffic signals;
 - (c) City of Winnipeg Traffic Services Department miscellaneous sign removal and installation and line painting;
 - (d) Manitoba Hydro Gas Division lowering and/or rock wrapping of underground main and services as required;
 - Manitoba Hydro Underground Power rebuilding and abandoning Hydro manhole vaults in westbound lanes of Part B, Part D and Part F during winter of 2015/2016; adjustment of manhole(s) frames as required;
 - MTS adjustment of existing MTS manholes in westbound lanes (Eastbound and Westbound Portage Avenue);
 - (g) City of Winnipeg Geomatics Branch various works on survey monuments.

D18. SEQUENCE OF WORK

- D18.1 Further to C6.1, the sequence of work shall be as follows:
- D18.1.1 The Work shall be divided into six parts. Part A, C and E are to be completed during the 2015 construction season. Part B, D and F are to be completed during the 2016 construction season as described in D2.

D19. CRITICAL STAGES

- D19.1 The Contractor shall achieve critical stages of the Work in accordance with the following requirements:
 - (a) Critical Stage 1 Part A, Part C and Part E as described in D2 shall achieve Total Performance within thirty-five (35) consecutive working days of the commencement of Work as specified in D21.
 - (b) Critical Stage 2 Part B, Part D and Part F as described in D2 shall achieve Total Performance within thirty-five (35) consecutive working days of the commencement of Work as specified in D21.
- D19.2 When the Contractor considers the Work associated with Critical Stage 1 and/or Critical Stage 2 to be completed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Completion. 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.
- D19.3 The date on which the Critical Stage 1 and/or Critical Stage 2 Work has been accepted by the Contract Administrator as being completed to the requirements of the Contract is the date on which completion of Critical Stage 1 and/or Critical Stage 2 has been achieved.

D20. SUBSTANTIAL PERFORMANCE

- D20.1 The Contractor shall achieve Substantial Performance within sixty-five (65) consecutive Working Days of the commencement of the Work as specified in D14.
- D20.2 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.
- D20.3 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.

D21. TOTAL PERFORMANCE

- D21.1 The Contractor shall achieve Total Performance within seventy (70) consecutive Working Days of the commencement of the Work as specified in D14.
- D21.2 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.
- D21.3 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.

D22. LIQUIDATED DAMAGES

- D22.1 If the Contractor fails to achieve Critical Stages, Substantial Performance or Total Performance in accordance with the Contract by the days fixed herein for same, the Contractor shall pay the City the following amounts per Working Day for each and every Working Day following the days fixed herein for same during which such failure continues:
 - (a) Critical Stage 1 five thousand dollars (\$5,000.00);
 - (b) Critical Stage 2 five thousand dollars (\$5,000.00);
 - (c) Substantial Performance five thousand dollars (\$5,000.00);
 - (d) Total Performance one thousand five hundred dollars (\$1,500.00).
- D22.2 The amounts specified for liquidated damages in D22.1 are based on a genuine pre-estimate of the City's losses in the event that the Contractor does not achieve critical stages, Substantial Performance or Total Performance by the days fixed herein for same.
- D22.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

D23. SCHEDULED MAINTENANCE

- D23.1 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 in Part A, Part B, Part E and Part F as specified in CW3250.
- D23.2 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.

D24. ACCELERATED COMPLETION

- D24.1 Description
- D24.1.1 This Supplemental Condition shall cover the accelerated completion for this contract.
- D24.2 Acceleration of Work
- D24.2.1 At no risk to the City, the Contractor at his own initiative, means, and expense, may undertake to complete the Works for this Contract to facilitate the safe reopening of traffic and pedestrians in advance of the stipulated working days as specified in D20.
- D24.2.2 Reopening shall occur when all Work items listed in D2.1 are complete, including streetscaping and Site cleanup.
- D24.2.3 In recognition of the fact that an early completion of the Works is of benefit to the City, the City will compensate the Contractor for said early completion on a per diem unit price basis, as hereinafter set out, provided that the City will not be liable to pay for any period of acceleration in excess of five (5) Working Days per Critical Stage 1 and five (5) Working Days for Critical Stage 2.
- D24.2.4 It is noted that certain delays of the Work are normal, due to Site conditions, necessary layout and dimensional changes. The Contract Administrator will attempt to resolve each situation as soon as possible. The Contractor is advised that no extension to the number of working Days listed in D21 will be given for events of this sort which cause construction delay and are resolved within 48 hours of the requirement of change becoming known to both the Contractor and the Contract Administrator.
- D24.3 Method of Measurement
- D24.3.1 Subject to clause D24.3 hereof, accelerated completion will be measured on a unit basis per diem. The number of days to be paid for will be the total number of Working Days with which all of the Work is complete and is safely reopened to vehicular and pedestrian traffic in advance of the number of Working Days specified in D21 with all specified Works listed in D2.1 completed and acceptable to the Contract Administrator.
- D24.4 Basis of Payment
- D24.4.1 Subject to clause D24.3 hereof, accelerated completion will be paid for at the Unit Price per diem specified hereinafter for "Accelerated Completion" which price shall be payment in full for performing all operations undertaken and all other items incidental to the Work included in this Specification. Unit Price per diem = Five thousand dollars (\$5,000).
- D24.4.2 Payment of this item is not identified on Form B: Prices, and shall not be included thereon. If accelerated completion does occur as specified herein, then payment will be made for this item as an addition to the Contract.

CONTROL OF WORK

D25. JOB MEETINGS

D25.1 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.

D25.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he/she deems it necessary.

D26. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)

D26.1 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).

D27. THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA) – QUALIFICATIONS

Purther to B11.4, the Contractor/Subcontractor must, throughout the term of the Contract, have a Workplace Safety and Health Program meeting the requirements of The Workplace Safety and Health Act (Manitoba). At any time during the term of the Contract, the City may, at its sole discretion and acting reasonably, require updated proof of compliance, as set out in B11.4.

MEASUREMENT AND PAYMENT

D28. PAYMENT

D28.1 Further to C12, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

WARRANTY

D29. WARRANTY

D29.1 Notwithstanding C13.2, the warranty period shall begin on the date of Total Performance and shall expire one (1) year thereafter unless extended pursuant to C13.2.1 or C13.2.2, in which case it shall expire when provided for thereunder.

FORM H1: PERFORMANCE BOND (See D11)

KNOW ALL MEN BY THE	ESE PRESENTS THAT	

(hereina	fter called the "Principa	ıl"), and		
(hereina called th	fter called the "Surety e "Obligee"), in the sun	"), are held and firmly boon	und unto THE CITY OF WINNIP	EG (hereinafter
			dollars (\$)
sum the	Principal and the Sure		s successors or assigns, for the pa heirs, executors, administrators,	
WHERE	AS the Principal has er	ntered into a written contra	ct with the Obligee for	
BID OP	PORTUNITY NO. 681-2	2015		
SIDEWA	ALK STREETSCAPING	AND OVERLAY FROM M	PORTAGE AVENUE REHABILIT. ICGEE STREET TO MEMORIAL Ereferred to as the "Contract".	
NOW TI	HEREFORE the conditi	on of the above obligation	is such that if the Principal shall:	
(b) (c) (d)	forth in the Contract an perform the Work in a g make all the payments in every other respect Contract; and	d in accordance with the te good, proper, workmanlike whether to the Obligee or comply with the conditio	to others as therein provided; ns and perform the covenants o	e Contract;
	demands of every des claims, actions for lo Compensation Act", or performance or non-p	cription as set forth in the oss, damages or compe any other Act or otherwise	st and from all loss, costs, damage Contract, and from all penalties insation whether arising under e arising out of or in any way coract or any part thereof during trein;	s, assessments, "The Workers nnected with the
		ALL BE VOID, but otherwis a greater sum than the su	e shall remain in full force and eff m specified above.	ect. The Surety
nothing or relea	of any kind or matter w	hatsoever that will not dis	the Surety shall be liable as Pri charge the Principal shall operate elating to the liability of Sureties	as a discharge
IN WITN	IESS WHEREOF the P	rincipal and Surety have si	gned and sealed this bond the	
	_ day of	, 20		

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

FORM H2: IRREVOCABLE STANDBY LETTER OF CREDIT (PERFORMANCE SECURITY) (See D11)

(Date)	
Legal S 185 Kir	ty of Winnipeg Services Department ng Street, 3rd Floor eg MB R3B 1J1
RE:	PERFORMANCE SECURITY – BID OPPORTUNITY NO. 681-2015
	CITY OF WINNIPEG REGIONAL STREET PROGRAM – PORTAGE AVENUE REHABILITATION, SIDEWALK STREETSCAPING AND OVERLAY FROM McGEE STREET TO MEMORIAL BOULEVARD
Pursua	nt to the request of and for the account of our customer,
(Name of	f Contractor)
(Address	s of Contractor)
	REBY ESTABLISH in your favour our irrevocable Standby Letter of Credit for a sum not exceeding aggregate Canadian dollars.
	Cariaulari dollars.
demand Letter of payment	tandby Letter of Credit may be drawn on by you at any time and from time to time upon written 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 for nt 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 upon bu 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:
(Address	5)
and we	confirm and hereby undertake to ensure that all demands for payment will be duly honoured by us.

All demands for payment shall specifically state that they are drawn under this Standby Letter of Credit.			
Subject to the condition hereinafter set forth, this Standby Letter of Credit will expire on			
(Date) .			

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

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

This credit is subject to the Uniform Customs and Practice for Documentary Credit (2007 Revision), International Chamber of Commerce Publication Number 600.

(Name	of bank or financial institution)
Per:	
	(Authorized Signing Officer)
Per:	
	(Authorized Signing Officer)

FORM J: SUBCONTRACTOR LIST

(See D12)

CITY OF WINNIPEG REGIONAL STREET PROGRAM – PORTAGE AVENUE REHABILITATION, SIDEWALK STREETSCAPING AND OVERLAY FROM McGEE STREET TO MEMORIAL BOULEVARD

Portion of the Work	<u>Name</u>	<u>Address</u>	
SURFACE WORKS:			
Supply of Materials:			
Concrete			
Asphalt			
Base Course & Sub-Base			
Holland Paving Stones			
Installation/Placement:			
Concrete			
Asphalt			
Base			
Holland Paving Stones			
UNDERGROUND WORKS:			
Supply of Materials:			
Frames and Covers			
Catch Basins			
Installation/Placement:			
Catch Basin Leads			
Sewer Televising			
OTHERS:			
Reflective Crack Maintenance			

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.	Drawing Name/Title	<u>Drawing</u>
		(Original)
		Sheet Size
P-3469-01-CT01	Cover Sheet	A1
P-3469-01-CT02	Plan/Profile Eastbound Maryland Street to Sta. 2+920	A1
P-3469-01-CT03	Plan/Profile Eastbound Station 2+920 to Furby Street	A1
P-3469-01-CT04	Plan/Profile Westbound McGee Street to Sta. 2+820	A1
P-3469-01-CT05	Plan/Profile Westbound Station 2+820 to Sta. 2+940	A1
P-3469-01-CT06	Plan/Profile Westbound Station 2+940 to Furby Street	A1
P-3469-01-CT07	Sidewalk Streetscaping Westbound Furby Street to Young Street	A1
P-3469-01-CT08	Sidewalk Streetscaping Eastbound Furby Street to Young Street	A1
P-3469-01-CT09	Sidewalk Streetscaping Eastbound Young Street to Spence Street	A1
P-3469-01-CT010	Furby Street to Memorial Boulevard Overlay	A1

E2. OFFICE FACILITIES

- E2.1 The Contractor shall supply office facilities meeting the following requirements:
 - (a) The field office shall be for the exclusive use of the Contract Administrator.
 - (b) The building shall be conveniently located near the site of the Work.
 - (c) The building shall have a minimum floor area of 25 square metres, a height of 2.4 m with two windows for cross ventilation and a door entrance with a suitable lock.
 - (d) The building shall be suitable for all weather use. It shall be equipped with an electric heater and air conditioner so that the room temperature can be maintained between either 16-18°C or 24-25°C.
 - (e) The building shall be adequately lighted with fluorescent fixtures and have a minimum of three wall outlets.
 - (f) The building shall be furnished with one desk, table 3m x 1.2 m, and a minimum of 12 chairs.
 - (g) A portable toilet shall be located near the field office building. The toilet shall have a locking door and be for the exclusive use of the Contract Administrator and other personnel from the City.

- (h) The field office building and the portable toilet shall be cleaned on a weekly basis immediately prior to each site meeting. The Contract Administrator may request additional cleaning when he/she deems it necessary.
- E2.2 The Contractor shall be responsible for all installation and removal costs, all operating costs, and the general maintenance of the office facilities.
- E2.3 The office facilities will be provided from the date of the commencement of the Work to the date of Total Performance.

E3. PROTECTION OF EXISTING TREES

- E3.1 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.
- E3.2 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/her designate.
- E3.3 No separate measurement or payment will be made for the protection of trees.
- E3.4 Except as required in clause E3.1(c) and E3.1(e), Elm trees shall not be pruned at any time between April 1 and July 31.

E4. TRAFFIC CONTROL

- E4.1 Further to clauses 3.6 and 3.7 of CW 1130:
 - (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. Payment shall be in accordance with CW3410.
 - (b) In accordance with the Manual of Temporary Traffic Control in Work Areas on City Streets, the Contractor ("Agency" in the manual) shall make arrangements with the Traffic Services Branch 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 Branch of the City of Winnipeg in connection with the works undertaken by the Contractor.

E5. TRAFFIC MANAGEMENT

- E5.1 Further to clause 3.7 of CW 1130:
- E5.1.1 Maintain a minimum of three (3) lanes of eastbound Portage Avenue traffic from Maryland St to Memorial Blvd during the morning peak hours (7:00 a.m. to 9:00 a.m., Monday to Friday). During non peak hours maintain a minimum of two (2) eastbound lanes;
- E5.1.2 Maintain a minimum of three (3) lanes of westbound Portage Avenue traffic from Memorial Blvd to McGee St during the Evening peak hours (3:30 p.m. to 5:30 p.m., Monday to Friday). During non peak hours maintain a minimum of two (2) westbound lanes;
- E5.1.3 The Contractor will be allowed to close alternating side street approaches on the south side of Portage Avenue for Part A and the north side of Portage Avenue for Part B in order to complete the rehabilitation works. The Contractor is to maintain a minimum of three lanes of traffic for northbound Sherbrook Street and Southbound Maryland Street in the a.m. and p.m. peaks. The construction works on Maryland Street, Sherbrook Street, St. Mary Avenue and Memorial Boulevard shall be completed during non peak hours. Ramping of asphalt may be required to open a street to traffic prior to final asphalt paving.
- E5.1.4 Private approach access shall be maintained at all times.
- E5.1.5 Pedestrian access to all businesses must be maintained during regular business hours.
- E5.1.6 In addition to the requirements above, the Contractor shall minimize all street and lane closures during construction and coordinate all such activities with the City of Winnipeg.
- E5.1.7 Where left turn lanes exist, an additional lane to accommodate the left turn storage lane shall be maintained at all times.
- E5.1.8 Pedestrian and ambulance/emergency vehicle access must be maintained at all times.

E6. PEDESTRIAN SAFETY

E6.1 During the project, a temporary snow fence shall be installed between the pedestrian sidewalk and the construction area. The Contractor shall be responsible for maintaining the snow fence in a proper working condition. No measurement for payment shall be made for this work.

E7. WATER OBTAINED FROM THE CITY

E7.1 Further to clause 3.7 of CW 1120, the Contractor shall pay for all costs, including sewer charges, associated with obtaining water from the City in accordance with the Waterworks and Sewer By-laws.

E8. SURFACE RESTORATIONS

E8.1 Further to clause 3.3 of CW 1130, 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.

E9. INFRASTRUCTURE SIGNS

E9.1 The Contractor shall obtain infrastructure signs from the Traffic Services Sign Shop at 421 Osborne Street. The Contractor shall mount each sign securely to a rigid backing material approved by the Contract Administrator. The Contractor shall fasten each sign to a suitable support and erect and maintain one sign at each street 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

E10. SUPPLY AND INSTALLATION OF PAVEMENT REPAIR FABRIC

DESCRIPTION

- E10.1 General
- E10.1.1 This specification covers the supply and installation of pavement repair fabric.
- E10.1.2 Referenced Standard Construction
 - (a) CW 3130 Supply and Installation of Geotextile Fabrics.

MATERIALS

- E10.2 Storage and Handling
- E10.2.1 Store and handle material in accordance with Section 2 of CW 3130.
- E10.3 Pavement Repair Fabric
- E10.3.1 Pavement repair fabric will be Glas Grid Road Reinforcement Mesh Style 8501 or approved equal.

CONSTRUCTION METHODS

- E10.4 General
- E10.4.1 Install pavement repair fabric at random locations as directed by the Contract Administrator.
- E10.4.2 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.
- E10.4.3 Proceed with installation upon completion and acceptance of the asphalt levelling course.
- E10.4.4 Install fabric in accordance with the manufacturer's specifications and recommendations.
- E10.4.5 Only construction equipment required to place the final asphalt surface course will be allowed to travel on the exposed fabric.
- E10.4.6 Replace damaged or improperly placed fabric.
- E10.4.7 Ensure temperature of the asphalt material does not exceed the melting point of the fabric.

MEASUREMENT AND PAYMENT

- E10.5 Pavement Repair Fabric
- E10.5.1 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.

E11. INSTALLATION OF INTERLOCKING PAVING STONES

DESCRIPTION

- E11.1 General
- E11.1.1 This specification shall supplement and amend the City of Winnipeg Standard Construction Specification CW 3330 "Installation of Interlocking Paving Stones".

- E11.1.2 Referenced Standard Construction Specifications
 - (a) CW 3330 Installation of Interlocking Paving Stones
- E11.1.3 Referenced Standard Detail
 - (a) SD-240A Interlocking Paving Stone Detail for Medians and Private Approaches

MATERIALS

- E11.2 Interlocking Paving Stones
- E11.2.1 Paving stones to be installed as detailed on the drawings.
- E11.2.2 100 x 200 Blue Hollard Pavers in Soldier Course shall be installed at Winnipeg Transit bus stops at locations noted on the drawings.
- E11.2.3 200 x 200 Holland Stone Charcoal color running band to be installed as per the drawings.
- E11.2.4 Paving stones shall conform to the requirements of CAN3-A231.2, Precast Concrete Pavers.
- E11.2.5 Further to CAN3-A231.2.6.1.1, where concrete pavers are shipped for installation before the pavers are twenty-eight (28) days old, the average compressive strength of these pavers at the time of delivery to the work site shall be not less than 40 MPa.

MEASUREMENT AND PAYMENT

E11.3 Measurement and payment will be in accordance with CW 3330 "Installation of Interlocking Paving Stones".

E12. REMOVAL AND RE-INSTALLATION OF BIKE RACKS

DESCRIPTION

- E12.1 General
- E12.1.1 This specification covers the removal, salvaging and re-installation of existing bike racks to facilitate construction.

CONSTRUCTION METHODS

- E12.2 Removal and Salvage of Bike Racks
- E12.2.1 Existing bike racks designated for removal to facilitate construction shall be carefully removed and salvaged. All components and all hardware shall be salvaged for reuse and stockpiled at locations designated by the Contract Administrator.
- E12.2.2 In the event of damage to any materials by the Contractor, the Contractor shall immediately notify the Contract Administrator and make all repairs or replacements necessary, at his own expense, to the satisfaction of the Contract Administrator. In no case shall the Contractor reinstall a damaged component.
- E12.3 Re-Installation of Salvaged Bike Racks
- E12.3.1 Re-install salvaged bike racks to the satisfaction of the Contract Administrator.

MEASUREMENT AND PAYMENT

- E12.4 Remove and Reinstall Bike Racks
- E12.4.1 The removal and re-installation of existing bike racks will be measured on a unit basis and paid for at the Contract Unit Price for "Remove and Reinstall Bike Racks". The number to be paid for will be the total number of bike racks removed and re-installed in accordance with this specification, accepted and measured by the Contract Administrator.

E13. ADJUSTMENT OF UTILITY MANHOLE FRAMES

DESCRIPTION

- E13.1 General
- E13.1.1 This specification covers the adjustment of MTS Allstream Inc. and Manitoba Hydro manholes which works include but are not limited to removing the existing frame, making any required changes to the structure to accommodate new frame installation, installing a new frame, lifter ring and cover and constructing any required temporary asphalt ramps.
- E13.1.2 Pavement removal and replacement will be in accordance with Specifications CW 3100 and CW 3230.
- E13.1.3 The Contractor is to provide 48 hour notice to the utility organization and the Contract Administrator prior to undertaking any of the proposed works on the utility manholes.
- E13.1.4 The Contractor to make arrangements through the Utility organization for watch personnel to be present during construction of the required works to the utility manholes.
- E13.1.5 Referenced Standard Construction Specifications
 - (a) CW 3110 Sub-Grade, Sub-Base and Base Course Construction;
 - (b) CW 3230 Full-Depth Patching of Existing Slabs and Joints.

MATERIALS

- E13.2 Manhole Frames, Covers and Riser Rings
- E13.2.1 Utility manhole frames, covers and frame riser rings will be provided by MTS Allstream Inc. or Manitoba Hydro.

CONSTRUCTION METHODS

- E13.3 Removal of Existing Pavement
- E13.3.1 Remove complete concrete slab surrounding utility manhole in accordance with Specification CW 3110.
- E13.3.2 Removal procedures to be done in a manor not to damage utility manhole structure.
- E13.4 Removal of Manhole Frame and Cover
- E13.4.1 Remove the required concrete embedding the frame and remove the frame and cover.

 Utility Watch personnel to approve construction method prior to proceeding. The

 Contractor is to provide opportunity for MTS Allstream Inc. or Manitoba Hydro to collect the
 old utility frame and cover, otherwise the old utility frame and covers are to be disposed of
 off-site as directed by the Contract Administrator.
- E13.5 Installation of New Frame, Cover and Riser Ring
- E13.5.1 Install new frame, cover and riser ring as specified herein and or on the drawings. Existing frames identified as being in good condition are to be reused.
- E13.5.2 Frame to be installed below final grade for installation of one frame riser ring (50mm).
- E13.6 Construct temporary asphalt ramp
- E13.6.1 Where required for re-opening lane to traffic, construct temporary asphalt ramp to the grades as noted on the drawings and as directed by the Contract Administrator.

MEASUREMENT AND PAYMENT

E13.7 Adjustment of Utility Manhole Frame

- E13.7.1 Adjustment of utility manhole frames will be measured on a unit basis and paid for at the Contract Unit Price per unit for "Adjustment of Utility Manhole Frame". The number of units to be paid for adjustment of utility manhole frames/installation of utility riser ring will be the total number of utility manhole frames c/w covers and riser rings installed in accordance with this specification, accepted and measured by the Contract Administrator.
- E13.8 Concrete Pavement removal and replacement will be measured and paid for in accordance with Specification CW 3230.

E14. TREE WELLS

DESCRIPTION

- E14.1 General
- E14.1.1 This specification covers the construction of tree wells, including but not limited to construction of the concrete tree well curbing, placement of planting medium soil and the installation of precast concrete tree covers.
- E14.1.2 Referenced Standard Construction Specifications
 - (a) CW 3310 Portland Cement Concrete Pavement Works

MATERIALS

- E14.2 Concrete
- E14.2.1 Concrete for tree well curbing construction to be in accordance with CW 3310.
- E14.3 Reinforcing Steel
- E14.3.1 Reinforcing steel for tree well curbing construction to be in accordance with CW 3310.
- E14.4 Planting Medium Soil
- E14.4.1 Mix imported topsoil with 20% peatmoss loose by volume, and 5% sand loose by volume. Incorporate bonemeal into planting soil at rate of 5 lbs /cu.yd. of soil mixture. Planting soil items to be comprised as follows:
 - (a) Peatmoss: horticultural grade Class "A" decomposed plant material, fairly elastic and homogeneous. Free of decomposed colloidal residue, weed, sulphur and iron. To have pH value of 5.9 to 7.0, 60% organic matter by weight, moisture content not exceeding 15% and water absorption capacity of not less than 300% by weight on oven dry basis.
 - (b) Bonemeal: shall be raw bonemeal, finely ground with a minimum analysis of 3% nitrogen and 20% phosphoric acid.
 - (c) Imported topsoil: natural, fertile, agricultural soil typical of locality, capable of sustaining vigorous plant growth, from well drained Site that is free of flooding, not in frozen or muddy condition, not less than 6% organic matter to a maximum 25% organic matter by volume, and pH value of 5.9 to 7.0. Free from subsoil, slag or clay, stones, lumps, live plants and their roots, sticks, crabgrass, couchgrass, noxious weeds and foreign matter.
 - (d) Sand: hard, granular natural beach sand, washed free of impurities, chemical or organic matter.

E14.5 Precast Concrete Tree Cover

E14.5.1 Precast concrete tree cover to be Barkman Item No. 45-48000 1.219m x 1.829m rectangle paver insert - 2 piece or approved equal.

CONSTRUCTION METHODS

E14.6 General

E14.6.1 The Contractor must ensure that all buried utilities and services are located and if necessary, protected and exposed prior to any excavation in accordance with Specification CW 1120.

E14.7 Tree Well Construction

- E14.7.1 Hydro-excavate around existing tree pit to extend it to the dimensions shown on the drawing in accordance with E15. The Contractor is to make arrangements for City of Winnipeg Forestry personnel to be on site during hydro-excavation to ensure exposure of tree roots is acceptable.
- E14.7.2 Construct tree well curbing in accordance with Specification CW 3310 and the drawings.
- E14.7.3 Backfill to grade shown on the drawings with planting medium soil compacting sufficiently to provide good soil consistency and to minimize settlement.
- E14.7.4 Supply and install precast tree covers on tree well curbing as per manufactures installation instructions.

MEASUREMENT AND PAYMENT

E14.8 Tree Well Curbing

- E14.8.1 Construction of tree well curbing will be measured on a linear bases and paid for at the Contract Unit Price per metre for "Tree Well Curbing". The length to be paid for will be the total number of metres constructed in accordance with this specification, accepted and measured by the Contract Administrator.
- E14.9 Precast Concrete Tree Covers.
- Supply and installation of precast concrete tree covers will be measured on a unit basis and paid for at the Contract Unit Price per unit for "Supply and Install Precast Concrete Tree Covers". The number of units to be paid for will be the total number of precast concrete tree covers installed in accordance with this specification, accepted and measured by the Contract Administrator.

E14.10 Planting Medium Soil

E14.10.1 Installation planting medium soil will be measured on a volume basis and paid for at the Contract Unit Price per cubic metre for "Install Planting Medium Soil". The volume to be paid will be the total number of cubic metres installed in accordance with this specification, accepted and measured by the Contract Administrator.

E14.11 Hydro Excavation

E14.11.1 Hydro excavation will measured and paid for in accordance with E15 Hydro Excavation.

E15. HYDRO EXCAVATION

DESCRIPTION

E15.1 General

- (a) This specification shall cover the removal of earthen material immediately adjacent to underground utilities infrastructure by means of high pressure water spray, and the recovery of evacuated material by vacuum type means or equivalent method as approved by the Contract Administrator.
- (b) This specification shall also cover Hydro excavation around existing trees in tree pit applications for the work under E14 Tree Wells.

E15.2 Equipment

- (a) Hydro excavation unit shall be capable of maintaining a minimum working pressure of 10,000 psi, at a rate of flow of 10 to 12 gallons per minute. Unit should be adjustable, so as to provide adequate pressure to remove earthen material identified by the Contract Administrator.
- (b) Spray head shall be equipped with a rotating type nozzle, in order to provide a wider path of cut.

E15.3 Construction Methods

- (a) Hydro-removal of earthen material
 - (i) Earthen material adjacent to utility entity shall be sprayed with high pressure water so as to remove all such material identified by the Contract Administrator.
 - (ii) Earthen material adjacent to tree roots for tree well construction shall be sprayed with controlled pressure water so as to not cause damage to the tree. The contractor must make arrangements to have personnel for City Forestry present during Hydro Excavation for tree well construction.

E15.3.1 Recovery of Excavated Material

- (a) The recovery of excavated material shall be done using vacuum type method, or other type method as approved by the Contract Administrator.
- (b) The recovery of material shall follow immediately behind the excavation, to avoid excavated areas from filling with excavated material.
- (c) The use of mechanical sweepers will not be allowed.
- (d) Dispose of material in accordance with Section 3.4 of CW 1130.

E15.3.2 Backfill of Hydro Excavated Hole

(a) The Contractor shall be responsible for the backfill of the hydro excavated hole upon the completion of the Work described herein, to the approval of the Contract Administrator.

E15.4 Measurement and Payment

E15.4.1 Hydro Excavation

(a) Hydro Excavation of earthen material will be measured on an hourly basis and paid for at the Contract Unit Price per hour for "Hydro Excavation". The hours to be paid for will be the total number of hours of Hydro Excavation in accordance with this specification, accepted and measured by the Contract Administrator. Travel to and from the Site will not be accounted for in the payment of this item.

E16. OPERATING CONSTRAINTS FOR WORK IN CLOSE PROXIMITY TO THE 115 KV HYDRO LINE AND THE 300 MM HIGH PRESSURE GAS LINE

E16.1 Description

- E16.1.1 This Section details operating constraints for all work to be carried out in close proximity to 115kV Hydro Line and the 300mm High Pressure Gas Line. The 115kV Hydro Line is located under the north sidewalk from the west limits of the project to the west side of Sherbrook Street. The 300mm High Pressure Gas Line crosses underneath Portage Avenue on the west side of Furby Street.
- E16.2 Protection of the 115kV Hydro Line and the 300mm High Pressure Gas Line During Construction
- E16.2.1 Contractors carrying out repair work or working in close proximity to the 115kV Hydro Line and the 300mm High Pressure Gas Line shall meet the following conditions and technical requirements:
 - (a) Pre-Work, Planning and General Execution

- (i) No work shall commence at the site until the Equipment Specifications and Construction Method Statement have been submitted and accepted, and the 115kV Hydro Line and the 300mm High Pressure Gas Line locations have been clearly delineated in the field. Work over the 115kV Hydro Line and the 300mm High Pressure Gas Line shall only be carried out with equipment that has been reviewed and quantified in terms of its loading implications. All proposed construction equipment must be submitted to Contract Administrator for review prior to construction. Work in areas in close proximity to the 115kV Hydro Line and the 300mm High Pressure Gas Line shall only be carried out with equipment that has been reviewed and quantified in terms of its loading implications by the Contract Administrator.
- (ii) The contractor and all site supervisory personnel and equipment operators have to be formally briefed to ensure that they are fully cognizant of the associated restrictions, constraints, and risks associated with working adjacent to and over these utilities. New personnel introduced after commencement of the project need to be formally orientated as to the significance and constraints associated with working over the 115kV Hydro Line and the 300mm High Pressure Gas Line.

(b) Sidewalk Removal and Excavation

- (i) Use of pneumatic concrete breakers within 3 metres of the 115kV Hydro Line and the 300mm High Pressure Gas Line is prohibited. Sidewalk shall be full depth sawcut and carefully removed. Use of hand held jackhammers for sidewalk removal will be allowed.
- (ii) Equipment shall not be allowed to operate while positioned directly over the 115kV Hydro Line and the 300mm High Pressure Gas Line.

(c) Base Course Construction

- (i) Granular material, construction material, soil or other material shall not be stockpiled on the 115kV Hydro Line and the 300mm High Pressure Gas Line.
- (ii) Base compaction within 3 metres of the centreline of the 115kV Hydro Line and the 300mm High Pressure Gas Line shall be carried out with smaller approved equipment such as hand held plate packers or smaller roller equipment.
- E16.3 All costs associated with the work in close proximity to the 115kV Hydro Line and the 300mm High Pressure Gas Line shall be incidental to the applicable type of pavement construction and no additional payment shall be made.