



**THE CITY OF WINNIPEG**

# **TENDER**

**TENDER NO. 333-2022**

**2022 DOWNTOWN SIDEWALK RENEWALS AND ASSOCIATED WORKS**

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## **PART B - BIDDING PROCEDURES**

### **B1. CONTRACT TITLE**

B1.1 2022 Downtown Sidewalk Renewals and Associated Works

### **B2. SUBMISSION DEADLINE**

B2.1 The Submission Deadline is 12:00 noon Winnipeg time, June 29, 2022.

B2.2 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 D4.1.

B3.2 If the Bidder finds errors, discrepancies or omissions in the Tender, 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 Tender 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 Tender 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.

B3.6 Any enquiries concerning submitting through MERX should be addressed to:  
MERX Customer Support  
Phone: 1-800-964-6379  
Email: merx@merx.com

### **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 Tender 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 Tender, 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.
- B5.3 Addenda will be available on the MERX website at [www.merx.com](http://www.merx.com).
- B5.4 The Bidder is responsible for ensuring that he/she has received all addenda and is advised to check the MERX website for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.
- B5.5 The Bidder shall acknowledge receipt of each addendum in Paragraph 10 of Form A: Bid/Proposal. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.
- B5.6 Notwithstanding B3, enquiries related to an Addendum may be directed to the Contract Administrator indicated in D4.

## **B6. SUBSTITUTES**

- B6.1 The Work is based on the Plant, Materials and methods specified in the Tender.
- 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 B17.
- B6.9 No later claim by the Contractor for an addition to the Total Bid Price because of any other changes in the Work necessitated by the use of an approved equal or an approved alternative will be considered.

## **B7. BID COMPONENTS**

- B7.1 The Bid shall consist of the following components:
- (a) Form A: Bid;
  - (b) Form B: Prices;
  - (c) Form G1: Bid Bond and Agreement to Bond.
- B7.2 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.
- B7.3 The Bid shall be submitted electronically through MERX at [www.merx.com](http://www.merx.com).
- B7.3.1 Bids will **only** be accepted electronically through MERX.
- B7.4 Bidders are advised that inclusion of terms and conditions inconsistent with the Tender document, including the General Conditions, will be evaluated in accordance with B17.1(a).

## **B8. BID**

- B8.1 The Bidder shall complete Form A: Bid/Proposal, making all required entries.
- B8.2 Paragraph 2 of Form A: Bid/Proposal 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/Proposal, the Bidder shall identify a contact person who is authorized to represent the Bidder for purposes of the Bid.
- B8.4 Paragraph 13 of Form A: Bid/Proposal 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;

- (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/Proposal should be entered 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 Prices stated on Form B: Prices shall not include any costs which may be incurred by the Contractor with respect to any applicable funding agreement obligations as outlined in D33. Any such costs shall be determined in accordance with D33.

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).

B9.5 The Bidder shall enter the Total Bid Price from Form B: Prices into the Total Bid Price field in MERX.

B9.5.1 Bidders are advised that the calculation indicated in B17.4 will prevail over the Total Bid Price entered in MERX.

## **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. CONFLICT OF INTEREST AND GOOD FAITH**

B11.1 Further to C3.2, Bidders, by responding to this Tender, declare that no Conflict of Interest currently exists, or is reasonably expected to exist in the future.

B11.2 Conflict of Interest means any situation or circumstance where a Bidder or employee of the Bidder proposed for the Work has:

- (a) other commitments;
- (b) relationships;
- (c) financial interests; or
- (d) involvement in ongoing litigation;

that could or would be seen to:

- (i) exercise an improper influence over the objective, unbiased and impartial exercise of the independent judgment of the City with respect to the evaluation of Bids or award of the Contract; or
  - (ii) compromise, impair or be incompatible with the effective performance of a Bidder's obligations under the Contract;
- (e) has contractual or other obligations to the City that could or would be seen to have been compromised or impaired as a result of its participation in the Tender process or the Work; or
- (f) has knowledge of confidential information (other than confidential information disclosed by the City in the normal course of the Tender process) of strategic and/or material relevance to the Tender process or to the Work that is not available to other bidders and that could or would be seen to give that Bidder an unfair competitive advantage.

**B11.3** In connection with its Bid, each entity identified in B11.2 shall:

- (a) avoid any perceived, potential or actual Conflict of Interest in relation to the procurement process and the Work;
- (b) upon discovering any perceived, potential or actual Conflict of Interest at any time during the Tender process, promptly disclose a detailed description of the Conflict of Interest to the City in a written statement to the Contract Administrator; and
- (c) provide the City with the proposed means to avoid or mitigate, to the greatest extent practicable, any perceived, potential or actual Conflict of Interest and shall submit any additional information to the City that the City considers necessary to properly assess the perceived, potential or actual Conflict of Interest.

**B11.4** Without limiting B11.3, the City may, in its sole discretion, waive any and all perceived, potential or actual Conflicts of Interest. The City's waiver may be based upon such terms and conditions as the City, in its sole discretion, requires to satisfy itself that the Conflict of Interest has been appropriately avoided or mitigated, including requiring the Bidder to put into place such policies, procedures, measures and other safeguards as may be required by and be acceptable to the City, in its sole discretion, to avoid or mitigate the impact of such Conflict of Interest.

**B11.5** Without limiting B11.3, and in addition to all contractual or other rights or rights at law or in equity or legislation that may be available to the City, the City may, in its sole discretion:

- (a) disqualify a Bidder that fails to disclose a perceived, potential or actual Conflict of Interest of the Bidder or any of its employees proposed for the Work;
- (b) require the removal or replacement of any employees proposed for the Work that has a perceived, actual or potential Conflict of Interest that the City, in its sole discretion, determines cannot be avoided or mitigated;
- (c) disqualify a Bidder or employees proposed for the Work that fails to comply with any requirements prescribed by the City pursuant to B11.4 to avoid or mitigate a Conflict of Interest; and
- (d) disqualify a Bidder if the Bidder, or one of its employees proposed for the Work, has a perceived, potential or actual Conflict of Interest that, in the City's sole discretion, cannot be avoided or mitigated, or otherwise resolved.

**B11.6** The final determination of whether a perceived, potential or actual Conflict of Interest exists shall be made by the City, in its sole discretion.

## **B12. QUALIFICATION**

**B12.1** 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.
- B12.2 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 <https://www.winnipeg.ca/matmgt/Templates/files/debar.pdf>
- B12.3 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);
- (d) have completed the Accessible Customer Service online training required by the Accessibility for Manitobans Act (AMA) (see B12.5 and D7).
- B12.4 Further to B12.3(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) Written confirmation of a safety and health certification meeting SAFE Work Manitoba's SAFE Work Certified Standard (e.g., COR™ and SECOR™) in the form of:
- (i) 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
- (ii) 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
- (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/>).
- B12.5 Further to B12.3(d), the Bidder acknowledges they and all Subcontractors have obtained training required by the Accessibility for Manitobans Act (AMA) available at <http://www.accessibilitymb.ca/training.html> for anyone that may have any interaction with the public on behalf of the City of Winnipeg.
- B12.6 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.
- B12.7 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.

### **B13. BID SECURITY**

- B13.1 The Bidder shall include in its Bid Submission bid security in the form of a digital 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 Form G1: Bid Bond and Agreement to Bond, available on The City of Winnipeg, Corporate Finance, Materials Management Division website at <https://www.winnipeg.ca/MatMgt/templates/files/eBidsecurity.pdf>.
- B13.2 Bid security shall be submitted in a digital format meeting the following criteria:
- (a) The version submitted by the Bidder must have valid digital signatures and seals;
  - (b) The version submitted by the Bidder must be verifiable by the City with respect to the totality and wholeness of the bond form, including: the content; all digital signatures and digital seals; with the surety company, or an approved verification service provider of the surety company.
  - (c) The version submitted must be viewable, printable and storable in standard electronic file formats compatible with the City, and in a single file. Allowable formats include pdf.
  - (d) The verification may be conducted by the City immediately or at any time during the life of the bond and at the discretion of the City with no requirement for passwords or fees.
  - (e) The results of the verification must provide a clear, immediate and printable indication of pass or fail regarding B13.2(a).
- B13.3 Bonds failing the verification process will not be considered to be valid and the bid shall be determined to be non-responsive in accordance with B17.1(a).
- B13.4 Bonds passing the verification process will be treated as original and authentic.
- B13.4.1 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.
- B13.5 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 formed with the successful Bidder and the contract securities are furnished as provided herein. The bid securities of all other Bidders will be released when a Contract is awarded.
- B13.6 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 Tender.

### **B14. OPENING OF BIDS AND RELEASE OF INFORMATION**

- B14.1 Bids will not be opened publicly.
- B14.2 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 MERX website at [www.merx.com](http://www.merx.com).
- B14.3 After award of Contract, the name(s) of the successful Bidder(s) and their Contract amount(s) will be available on the MERX website at [www.merx.com](http://www.merx.com).
- B14.4 The Bidder is advised that any information contained in any Bid may be released if required by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law or by City policy or procedures (which may include access by members of City Council).
- B14.4.1 To the extent permitted, the City shall treat as confidential information, those aspects of a Bid Submission identified by the Bidder as such in accordance with and by reference to Part 2, Section 17 or Section 18 or Section 26 of The Freedom of Information and Protection of Privacy Act (Manitoba), as amended.

**B15. IRREVOCABLE BID**

- B15.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 11 of Form A: Bid/Proposal.
- B15.2 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 formed and the contract securities have been 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/Proposal.

**B16. WITHDRAWAL OF BIDS**

- B16.1 A Bidder may withdraw his/her Bid without penalty prior to the Submission Deadline.

**B17. EVALUATION OF BIDS**

- B17.1 Award of the Contract shall be based on the following bid evaluation criteria:
- (a) compliance by the Bidder with the requirements of the Tender, or acceptable deviation therefrom (pass/fail);
  - (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B12 (pass/fail);
  - (c) Total Bid Price;
  - (d) economic analysis of any approved alternative pursuant to B6.
- B17.2 Further to B17.1(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.
- B17.3 Further to B17.1(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 qualified.
- B17.4 Further to B17.1(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.
- B17.4.1 Further to B17.1(a), in the event that a unit price is not provided on Form B: Prices, the City may determine the unit price by dividing the Amount (extended price) by the approximate quantity, for the purposes of evaluation and payment.
- B17.4.2 Bidders are advised that the calculation indicated in B17.4 will prevail over the Total Bid Price entered in MERX.

**B18. AWARD OF CONTRACT**

- B18.1 The City will give notice of the award of the Contract or will give notice that no award will be made.
- B18.2 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 qualified, and the Bids are determined to be responsive.
- B18.2.1 Without limiting the generality of B18.2, 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.

- B18.3** If funding for the Work is provided to the City of Winnipeg by the Government of Manitoba and/or the Government of Canada, Bidders are advised that the terms of D33 shall immediately take effect upon confirmation of such funding, regardless of when funding is confirmed.
- B18.4** Where an award of Contract is made by the City, the award shall be made to the qualified Bidder submitting the lowest evaluated responsive Bid, in accordance with B17.
- B18.4.1** 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**

### **C0. GENERAL CONDITIONS**

- C0.1 The *General Conditions for Construction* (Revision 2020-01-31) 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](http://www.winnipeg.ca/matmgt/gen_cond.stm)
- C0.2 A reference in the Tender 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. FORM OF CONTRACT DOCUMENTS**

D2.1 Notwithstanding C4.1(c) and C4.4, the Contract Documents will be provided to the Contractor electronically and there will be no requirement for execution and return to the City by the Contractor. Accordingly, the provisions under C4.4(a) and C4.4(b) are no longer applicable.

#### **D3. SCOPE OF WORK**

D3.1 The Work to be done under the Contract shall consist of:

- (a) Downtown Sidewalk Renewals and Associated Works
  - (i) Ellice Avenue (East Side) – Vaughan Street to Kennedy Street
  - (ii) York Avenue (Both Sides) – Carlton Street to Main Street

D3.2 The major components of the Work are as follows:

- (a) Ellice Avenue from Vaughan Street to Kennedy Street
  - (i) Monolithic curb and sidewalk removal;
  - (ii) Interlocking paving stone and lean mix concrete removal;
  - (iii) Removal of trees and tree well components;
  - (iv) Supplying and placing base course;
  - (v) Create sump pits for Silva Cell drainage;
  - (vi) Install leads from Silva Cells to existing catch basins;
  - (vii) Construct tree well curbing;
  - (viii) Installation of Silva Cells;
  - (ix) Install new tree well frames and grates;
  - (x) Adjust MH/Catch Basin frames;
  - (xi) Adjust water valves;
  - (xii) Adjust curb stops;
  - (xiii) Install 100mm monolithic curb and sidewalk with block-outs for paving stones;
  - (xiv) Install paving stone indicator surfaces;
  - (xv) Installation of Detectable Warning Surface Tiles;
  - (xvi) Construction of asphalt patches; and
  - (xvii) Regrading of existing interlocking paving stone.
- (b) York Avenue from Carlton Street to Main Street
  - (i) Monolithic curb and sidewalk removal;
  - (ii) Interlocking paving stone and lean mix concrete removal;
  - (iii) Supplying and placing base course;
  - (iv) Adjust MH/Catch Basin frames;
  - (v) Adjust water valves;
  - (vi) Adjust curb stops;
  - (vii) Remove and replace curb inlet frame and box;
  - (viii) Construct tree well curbing;

- (ix) Install new tree well frames and grates;
- (x) Install 100mm monolithic curb and sidewalk with block-outs for paving stones;
- (xi) Install paving stone indicator surfaces;
- (xii) Installation of Detectable Warning Surface Tiles;
- (xiii) Construction of asphalt patches; and
- (xiv) Regrading of existing interlocking paving stone.

#### **D4. CONTRACT ADMINISTRATOR**

D4.1 The Contract Administrator is:

Richard Weibel, C.E.T.  
Project Coordinator, Public Works, Engineering  
Telephone No. 204-986-4112  
Email Address rweibel@winnipeg.ca

D4.2 At the pre-construction meeting, the Contract Administrator will identify additional personnel representing the Contract Administrator and their respective roles and responsibilities for the Work.

#### **D5. CONTRACTOR'S SUPERVISOR**

D5.1 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.

D5.2 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 D5.1 or an alternate can be contacted twenty-four (24) hours a day to respond to an emergency.

#### **D6. NOTICES**

D6.1 Except as provided for in C22.4, 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/Proposal.

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 identified in D4.

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

#### **D7. ACCESSIBLE CUSTOMER SERVICE REQUIREMENTS**

D7.1 The Accessibility for Manitobans Act (AMA) imposes obligations on The City of Winnipeg to provide accessible customer service to all persons in accordance with the Customer Service Standard Regulation ("CSSR") to ensure inclusive access and participation for all people who live, work or visit Winnipeg regardless of their abilities.

- D7.1.1 The Contractor agrees to comply with the accessible customer service obligations under the CSSR and further agrees that when providing the Goods or Services or otherwise acting on the City of Winnipeg's behalf, shall comply with all obligations under the AMA applicable to public sector bodies.
- D7.1.2 The accessible customer service obligations include, but are not limited to:
- (a) providing barrier-free access to goods and services;
  - (b) providing reasonable accommodations;
  - (c) reasonably accommodating assistive devices, support persons, and support animals;
  - (d) providing accessibility features e.g. ramps, wide aisles, accessible washrooms, power doors and elevators;
  - (e) inform the public when accessibility features are not available;
  - (f) providing a mechanism or process for receiving and responding to public feedback on the accessibility of all goods and services; and
  - (g) providing adequate training of staff and documentation of same.

## **D8. FURNISHING OF DOCUMENTS**

- D8.1 Upon award of the Contract, the Contractor will be provided with 'issued for construction' Contract Documents electronically, including Drawings in PDF format only.

## **SUBMISSIONS**

### **D9. AUTHORITY TO CARRY ON BUSINESS**

- D9.1 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.

### **D10. SAFE WORK PLAN**

- D10.1 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 Documents, if applicable.
- D10.2 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>
- D10.3 Notwithstanding B12.4 at any time during the term of the Contract, the City may, at its sole discretion and acting reasonably, require an updated COR Certificate or Annual Letter of good Standing. A Contractor, who fails to provide a satisfactory COR Certificate or Annual Letter of good Standing, will not be permitted to continue to perform any Work.

### **D11. INSURANCE**

- D11.1 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.

D11.2 Deductibles shall be borne by the Contractor.

D11.3 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 Documents, as applicable.

D11.4 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.

## **D12. CONTRACT SECURITY**

D12.1 The Contractor shall provide and maintain the performance bond and the labour and material payment bond 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; and
- (b) a labour and material payment bond of a company registered to conduct the business of a surety in Manitoba, in the form attached to these Supplemental Conditions (Form H2: Labour and Material Payment Bond), in an amount equal to fifty percent (50%) of the Contract Price.

D12.1.1 Where the contract security is a performance bond, it may be submitted in hard copy or digital format. If submitted in digital format the contract security must meet the following criteria:

- (a) the version submitted by the Contractor must have valid digital signatures and seals;
- (b) the version submitted by the Contractor must be verifiable by the City with respect to the totality and wholeness of the bond form, including: the content; all digital signatures and digital seals; with the surety company, or an approved verification service provider of the surety company.
- (c) the version submitted must be viewable, printable and storable in standard electronic file formats compatible with the City, and in a single file. Allowable formats include pdf.
- (d) the verification may be conducted by the City immediately or at any time during the life of the bond and at the discretion of the City with no requirement for passwords or fees.
- (e) the results of the verification must provide a clear, immediate and printable indication of pass or fail regarding D12.1(b).

D12.1.2 Digital bonds failing the verification process will not be considered to be valid and may be determined to be an event of default in accordance with C18.1. If a digital bond fails the verification process, the Contractor may provide a replacement bond (in hard copy or digital format) within seven (7) Calendar Days of the City's request or within such greater period of time as the City in its discretion, exercised reasonably, allows.

D12.1.3 Digital bonds passing the verification process will be treated as original and authentic.

D12.2 The Contractor shall provide the City Solicitor with the required performance and labour and material payment bonds within seven (7) Calendar Days of notification of the award of the Contract by way of an award letter 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 Documents, if applicable.

D12.3 The Contractor shall, as soon as practicable after entering into a contract with a Subcontractor:

- (a) give the Subcontractor written notice of the existence of the labour and material payment bond in D12.1(b); and
- (b) post a notice of the bond and/or a copy of that bond in a conspicuous location at the Site of the Work.

### **D13. SUBCONTRACTOR LIST**

D13.1 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 Documents, if applicable.

### **D14. DETAILED WORK SCHEDULE**

D14.1 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 Documents, as applicable.

D14.2 The detailed work schedule shall consist of the following:

- (a) a Gantt chart for the Work based on the schedule acceptable to the Contract Administrator.

D14.3 Further to D14.2(a), 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.

### **D15. REQUIREMENTS FOR SITE ACCESSIBILITY PLAN**

D15.1 The Contractor shall provide the Contract Administrator with an Accessibility 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 Documents, if applicable.

D15.2 The Accessibility Plan shall demonstrate how the Contractor will accommodate the safe passage of pedestrians and cyclists in accordance with the Manual of Temporary Traffic Control, the Contract Drawings, Staging Plans, and Streets By-Law No. 1481/77 at all times for the duration of the Construction. Unless noted in the Contract, the Accessibility Plan must include a written plan for the following:

- (a) How the Contractor will maintain at least one crossing in each direction for each intersection (one north/south crosswalk and one east/west crosswalk).
- (b) How the Contractor will maintain access to bus stops within the site.
- (c) How the Contractor will maintain access to pedestrian corridors and half signals.
- (d) How the Contractor will maintain cycling facilities.
- (e) How the Contractor will maintain access to residents and businesses unless otherwise noted in the Contract.
- (f) Any required detour signage at adjacent crossings to facilitate sidewalk or active transportation pathway closures.

- D15.3 The Accessibility Plan may also include figures, sketches, or drawings to demonstrate the proposed plan.
- D15.4 The Accessibility Plan shall include written details on how the Contractor intends to review, maintain, and document all items related to the Accessibility Plan on-site during Construction, including, but not limited to:
- (a) Signage
  - (b) Temporary Ramping
  - (c) Transit Stops
  - (d) Detour Signage
- D15.5 At minimum, the Contractor shall review the site conditions on a daily basis to ensure that all features related to the Accessibility Plan are in place. The site review is intended to correct deficiencies as a result of unforeseen events such as wind, traffic, or the general public. Deficiencies that are direct result of the Contractors actions must be corrected immediately.
- D15.6 Any changes to the Accessibility Plan must be approved by the Contract Administrator.
- D15.7 Upon request from the Contract Administrator, the Contractor shall provide records demonstrating that the site has been maintained.
- D15.8 Deficiencies as a direct result of actions by the Contractor that are not immediately corrected and/or failure to produce records that demonstrate that the site was maintained in compliance with the Accessibility Plan may result in a pay adjustment via the monthly Progress Payment. The rate of pay adjustment will be as per the following schedule:
- (a) First Offence – A warning will be issued and documented in the weekly or bi-weekly site meeting.
  - (b) Second Offence – A field instruction to immediately correct the site will be issued by the Contract Administrator.
  - (c) Third and subsequent Offences – A pay reduction will be issued in the amount of \$250.00 per instance and per day.

## **SCHEDULE OF WORK**

### **D16. COMMENCEMENT**

- D16.1 The Contractor shall not commence any Work until he/she is in receipt of an award letter from the Award Authority authorizing the commencement of the Work.
- D16.2 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 D9;
    - (ii) evidence of the workers compensation coverage specified in C6.15;
    - (iii) the twenty-four (24) hour emergency response phone number specified in D5.2.
    - (iv) the Safe Work Plan specified in D10;
    - (v) evidence of the insurance specified in D11;
    - (vi) the contract security specified in D12;
    - (vii) the subcontractor list specified in D13;
    - (viii) the detailed work schedule specified in D14;
    - (ix) the Requirements for Site Accessibility Plan specified in D15; and
    - (x) the direct deposit application form specified in D29
  - (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.

D16.3 The Contractor shall not commence the Work on the Site before August 31, 2022, and shall commence the Work on Site no later than September 7, 2022, as directed by the Contract Administrator and weather permitting.

#### **D17. WORKING DAYS**

D17.1 Further to C1.1(tt);

D17.1.1 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.

D17.1.2 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.

D17.1.3 When the Work includes two or more major types of Work that can be performed under different atmospheric conditions, the Contract Administrator shall consider all major types of Work in determining whether the Contractor was able to work in assessing Working Days.

D17.1.4 Saturdays and Sundays will be considered a Working Day if the Contractor is working at least seven (7) hours on Site and the Contract Administrator deems that the Contract Administrator's staff is also required on Site.

#### **D18. RESTRICTED WORK HOURS**

D18.1 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.

D18.2 The following work hour restrictions shall also apply:

- (a) The Contractor shall not be allowed to occupy a Traffic Lane on Priority 1 streets during "Weekday Peak Periods" as defined within the current City of Winnipeg, Manual of Temporary Traffic Control, unless approved by the Traffic Management Branch of the City of Winnipeg Public Works Department.

#### **D19. WORK BY OTHERS**

D19.1 Further to C6.25, the Contractor's attention is directed to the fact that other Contractors, the personnel of Utilities and the staff of the City may be working within the project limit, approach roadway, adjacent roadways or right-of-way. The activities of these agencies may coincide with the Contractors execution of work and it will be the Contractor's responsibility to cooperate to the fullest extent with other personnel working in the area, and such cooperation is an obligation of the Contractor under the terms of Contract.

D19.2 Work by others on or near the Site will include but not necessarily be limited to:

- (a) City of Winnipeg Traffic Signals;
- (b) City of Winnipeg Traffic Services;
- (c) City of Winnipeg Geomatics;
- (d) Winnipeg Parking Authority; and
- (e) Manitoba Hydro.

D19.3 Further to D19.1 the Contractor shall cooperate and coordinate all activities with all parties performing required Work by Others. The Contractor must include and accommodate Work by Others identified in D19.2 or additional parties, in their construction schedule as per D14 and accommodate the necessary area on Site required for the Work by Others to complete the Work.

## **D20. SEQUENCE OF WORK**

D20.1 Further to C6.1, the sequence of work shall comply with the following:

D20.1.1 Providing that the Work on each street is completed in a similar order to the order that the Work was commenced in, the Contractor will be permitted to have both Ellice Avenue and York Avenue under construction at any one time. Completion of a street means that all of the necessary concrete, asphalt including approaches and landscaping Work is completed to the satisfaction of the Contract Administrator.

D20.1.2 Construction activity will be limited to one side of the street at a time. Pedestrian access must be maintained on one side of the street at all times.

D20.1.3 Construction activity on York Avenue is to be limited to two (2) blocks at a time. No construction shall commence on the subsequent blocks until substantial completion is achieved and parking is restored on the previous blocks, or as approved by the Contract Administrator.

## **D21. SUBSTANTIAL PERFORMANCE**

D21.1 The Contractor shall achieve Substantial Performance within thirty-five (35) consecutive Working Days of the commencement of the Work as specified in D16.

D21.2 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.

D21.3 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.

## **D22. TOTAL PERFORMANCE**

D22.1 The Contractor shall achieve Total Performance within forty (40) consecutive Working Days of the commencement of the Work as specified in D16.

D22.2 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.

D22.3 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.

## **D23. LIQUIDATED DAMAGES**

D23.1 If the Contractor fails to achieve 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) Substantial Performance – Two Thousand dollars (\$2000.00);
- (b) Total Performance – One Thousand dollars (\$1000.00).

D23.2 The amounts specified for liquidated damages in D23.1 are based on a genuine pre-estimate of the City's losses in the event that the Contractor does not achieve Substantial Performance or Total Performance by the days fixed herein for same.

D23.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

#### **D24. COVID-19 SCHEDULE DELAYS**

D24.1 The City acknowledges that the schedule for this Contract may be impacted by the COVID-19 pandemic. Commencement and progress of the Work shall be performed by the Contractor with due consideration to the health and safety of workers and the public, directives from health authorities and various levels of government and in close consultation with the Contract Administrator.

D24.2 If the Contractor is delayed in the performance of the Work by reason of the COVID-19 pandemic, the Work schedule may be adjusted by a period of time equal to the time lost due to such delay and costs related to such delay will be determined as identified herein.

D24.3 A minimum of seven (7) Calendar Days prior to the commencement of Work, the Contractor shall declare whether COVID-19 will affect the start date. The Contractor shall provide sufficient evidence that the delay is directly related to COVID-19, including but not limited to evidence related to availability of staff, availability of Material or work by others.

D24.4 For any delay related to COVID-19 and identified after Work has commenced, the Contractor shall within seven (7) Calendar Days of becoming aware of the anticipated delay declare the additional delay and shall provide sufficient evidence as indicated in D24.3. Failure to provide this notice will result in no additional time delays being considered by the City.

D24.5 The Work schedule, including the durations identified in D18 to D22 where applicable, will be adjusted to reflect delays accepted by the Contract Administrator. No additional payment will be made for adjustment of schedules except where seasonal work, not previously identified in the Contract, is carried over to the following construction season.

D24.6 Where Work not previously identified is being carried over solely as a result of delays related to COVID-19, as confirmed by the Contract Administrator, the cost of temporary works to maintain the Work in a safe manner until Work recommences, will be considered by the Contract Administrator. Where the Work is carried over only partially due to COVID-19, a partial consideration of the cost of temporary works will be considered by the Contract Administrator.

D24.7 Any time or cost implications as a result of COVID-19 and in accordance with the above, as confirmed by the Contract Administrator, shall be documented in accordance with C7.

#### **D25. SCHEDULED MAINTENANCE**

D25.1 The Contractor shall perform the following scheduled maintenance in the manner and within the time periods required by the Specifications:

- (a) Reflective Crack Maintenance as specified in CW 3250-R7; and
- (b) Salt Tolerant Grass Seeding as specified in CW 3520-R7

D25.2 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

### D26. JOB MEETINGS

- D26.1 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, and one representative of the Contractor. Each representative shall be a responsible person capable of expressing the position of the Contract Administrator 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.
- D26.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he/she deems it necessary.

### D27. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)

- D27.1 Further to C6.26, the Contractor shall be the Prime Contractor and shall serve as, and have the duties of the Prime Contractor in accordance with The Workplace Safety and Health Act (Manitoba).

### D28. THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA) – QUALIFICATIONS

- D28.1 Further to B12.4, 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 B12.4.

## MEASUREMENT AND PAYMENT

### D29. PAYMENT

- D29.1 Further to C12, the City shall make payments to the Contractor by direct deposit to the Contractor's banking institution, and by no other means. Payments will not be made until the Contractor has made satisfactory direct deposit arrangements with the City. Direct deposit application forms are at [https://winnipeg.ca/finance/files/Direct\\_Deposit\\_Form.pdf](https://winnipeg.ca/finance/files/Direct_Deposit_Form.pdf).

### D30. FUEL PRICE ADJUSTMENT

- D30.1 The Contract is subject to a fuel price adjustment which will be calculated monthly based on eligible Work completed utilizing the following mathematical formulas;

- (a) where the price of fuel has increased -  $((CFI/BFI)-1.15) \times Q \times FF$ ; and
- (b) where the price of fuel has decreased -  $((CFI/BFI)-0.85) \times Q \times FF$ ; where
- (i) BFI = base fuel index
  - (ii) CFI = current fuel index
  - (iii) FF = fuel factor
  - (iv) Q = monetary value of Work applied in the calculation.

- D30.1.1 Eligible Work will be determined in accordance with D30.5.

- D30.1.2 The base fuel index (BFI) will be the retail price of fuel identified on the Submission Deadline based on latest published "Monthly average retail prices for gasoline and fuel by geography" for Winnipeg, published by [Statistics Canada, Table 18-10-0001-01](#). The BFI is a blended rate based on 15% regular unleaded gasoline at self-service filling stations and 85% diesel fuel at self-service filling stations.

- D30.1.3 The current fuel index (CFI) based on the above blended rate will be determined for each monthly progress estimate and applied on the following progress estimate as a change order once rates are published by Statistics Canada.
- D30.1.4 A Fuel Factor (FF) rate of the monetary value of all eligible Work completed that month based on the Contract unit prices will be used to calculate the assumed apportioned cost of fuel.
- D30.2 Fuel cost adjustments may result in additional payment to the Contractor or credit to the City within the Contract by way of a monthly change order.
- D30.3 The fuel escalation or de-escalation adjustment will not be applied if the CFI is within  $\pm 15\%$  of the BFI.
- D30.4 Fuel escalation adjustments will not be considered beyond the Substantial Performance/Critical Stages except where those dates/Working Days are adjusted by change order. Fuel de-escalation adjustments will apply for Work that extends beyond the dates/Working Days specified for Substantial Performance/Critical Stages.
- D30.5 The Fuel Factor (FF) rates will be set as follows:
- (a) The Fuel Factor rate shall be set at 2.7% of the monetary value of all Work based on unit prices except for the portions of the Contract identified below;

## **WARRANTY**

### **D31. WARRANTY**

- D31.1 Notwithstanding C13.2, the warranty period shall begin on the date of Total Performance and shall expire one (1) year thereafter, except where longer warranty periods are specified in the respective Specification sections, unless extended pursuant to C13.2.1 or C13.2.2, in which case it shall expire when provided for thereunder.
- D31.1.1 For the purpose of contract security, the warranty period shall be one (1) year.
- D31.2 Notwithstanding C13.2, the Contract Administrator may permit the warranty period for a portion or portions of the Work to begin prior to the date of Total Performance if a portion of the Work cannot be completed because of unseasonable weather or other conditions reasonably beyond the control of the Contractor but that portion does not prevent the balance of the Work from being put to its intended use.
- D31.2.1 In such case, the date specified by the Contract Administrator for the warranty period to begin shall be substituted for the date specified in C13.2 for the warranty period to begin.

## **DISPUTE RESOLUTION**

### **D32. DISPUTE RESOLUTION**

- D32.1 If the Contractor disagrees with any opinion, determination, or decision of the Contract Administrator, the Contractor shall act in accordance with the Contractor Administrator's opinion, determination, or decision unless and until same is modified by the process followed by the parties pursuant to D32.
- D32.2 The entire text of C21.4 is deleted, and amended to read: "Intentionally Deleted"
- D32.3 The entire text of C21.5 is deleted, and amended to read:
- (a) If Legal Services has determined that the Disputed Matter may proceed in the Appeal Process, the Contractor must, within ten (10) Business Days of the date of the Legal Services Response Letter, submit his written Appeal Form, in the manner and format set out on the City's Materials Management Website, to the Chief Administrative Officer, and to



the Contract Administrator. The Contractor may not raise any other disputes other than the Disputed Matter in his Appeal Form.

- D32.4 Further to C21, prior to the Contract Administrator's issuance of a Final Determination, the following informal dispute resolution process shall be followed where the Contractor disagrees with any opinion, determination, or decision of the Contract Administrator ("Dispute"):
- (a) In the event of a Dispute, attempts shall be made by the Contract Administrator and the Contractor's equivalent representative to resolve Disputes within the normal course of project dealings between the Contract Administrator and the Contractor's equivalent representative.
  - (b) Disputes which in the reasonable opinion of the Contract Administrator or the Contractor's equivalent representative cannot be resolved within the normal course of project dealings as described above shall be referred to a without prejudice escalating negotiation process consisting of, at a minimum, the position levels as shown below and the equivalent Contractor representative levels:
    - (i) The Contract Administrator;
    - (ii) Supervisory level between the Contract Administrator and applicable Department Head;
    - (iii) Department Head.
- D32.4.1 Names and positions of Contractor representatives equivalent to the above City position levels shall be determined by the Contractor and communicated to the City at the pre-commencement or kick off meeting.
- D32.4.2 As these negotiations are not an adjudicative hearing, neither party may have legal counsel present during the negotiations.
- D32.4.3 Both the City and the Contractor agree to make all reasonable efforts to conduct the above escalating negotiation process within twenty (20) Business Days, unless both parties agree, in writing, to extend that period of time.
- D32.4.4 If the Dispute is not resolved to the City and Contractor's mutual satisfaction after discussions have occurred at the final escalated level as described above, or the time period set out in D32.4.3, as extended if applicable, has elapsed, the Contract Administrator will issue a Final Determination as defined in C1.1(v), at which point the parties will be governed by the Dispute Resolution process set out in C21.

### THIRD PARTY AGREEMENTS

#### D33. FUNDING AND/OR CONTRIBUTION AGREEMENT OBLIGATIONS

- D33.1 In the event that funding for the Work of the Contract is provided to the City of Winnipeg by the Government of Manitoba and/or the Government of Canada, the following terms and conditions shall apply, as required by the applicable funding agreements.
- D33.2 Further to D33.1, in the event that the obligations in D33 apply, actual costs legitimately incurred by the Contractor as a direct result of these obligations ("Funding Costs") shall be determined by the actual cost to the Contractor and not by the valuation method(s) outlined in C7.4. In all other respects Funding Costs will be processed in accordance with Changes in Work under C7.
- D33.3 For the purposes of D33:
- (a) "**Government of Canada**" includes the authorized officials, auditors, and representatives of the Government of Canada; and
  - (b) "**Government of Manitoba**" includes the authorized officials, auditors, and representatives of the Government of Manitoba.
- D33.4 Modified Insurance Requirements

- D33.4.1 If not already required under the insurance requirements identified in D11, the Contractor will be required to provide wrap-up liability insurance in an amount of no less than two million dollars (\$2,000,000) inclusive per occurrence. Such policy will be written in the joint names of the City, Contractor, Consultants and all sub-contractors and sub-consultants and include twelve (12) months completed operations. The Government of Manitoba and its Ministers, officers, employees, and agents shall be added as additional insureds.
- D33.4.2 If not already required under the insurance requirements identified in D11, the Contractor will be required to provide builders' risk insurance (including boiler and machinery insurance, as applicable) providing all risks coverage at full replacement cost, or such lower level of insurance that the City may identify on a case-by-case basis, such as an installation floater.
- D33.4.3 The Contractor shall obtain and maintain third party liability insurance with minimum coverage of two million dollars (\$2,000,000.00) per occurrence on all licensed vehicles operated at the Site. In the event that this requirement conflicts with another licensed vehicle insurance requirement in this Contract, then the requirement that provides the higher level of insurance shall apply.
- D33.4.4 Further to D11.3, insurers shall provide satisfactory Certificates of Insurance to the Government of Manitoba prior to commencement of Work as written evidence of the insurance required. The Certificates of Insurance must provide for a minimum of thirty (30) days' prior written notice to the Government of Manitoba in case of insurance cancellation.
- D33.4.5 All policies must be taken out with insurers licensed to carry on business in the Province of Manitoba.
- D33.5 Indemnification By Contractor
- D33.5.1 In addition to the indemnity obligations outlined in C17 of the General Conditions for Construction, the Contractor agrees to indemnify and save harmless the Government of Canada and the Government of Manitoba and each of their respective Ministers, officers, servants, employees, and agents from and against all claims and demands, losses, costs, damages, actions, suit or other proceedings brought or pursued in any manner in respect of any matter caused by the Contractor or arising from this Contract or the Work, or from the goods or services provided or required to be provided by the Contractor, except those resulting from the negligence of any of the Government of Canada's or the Government of Manitoba's Ministers, officers, servants, employees, or agents, as the case may be.
- D33.5.2 The Contractor agrees that in no event will Canada or Manitoba, their respective officers, servants, employees or agents be held liable for any damages in contract, tort (including negligence) or otherwise, for:
- (a) any injury to any person, including, but not limited to, death, economic loss or infringement of rights;
  - (b) any damage to or loss or destruction of property of any person; or
  - (c) any obligation of any person, including, but not limited to, any obligation arising from a loan, capital lease or other long term obligation;
- in relation to this Contract or the Work.
- D33.6 Records Retention and Audits
- D33.6.1 The Contractor shall maintain and preserve accurate and complete records in respect of this Contract and the Work, including all accounting records, financial documents, copies of contracts with other parties and other records relating to this Contract and the Work during the term of the Contract and for at least six (6) years after Total Performance. Those records bearing original signatures or professional seals or stamps must be preserved in paper form; other records may be retained in electronic form.
- D33.6.2 In addition to the record keeping and inspection obligations outlined in C6 of the General Conditions for Construction, the Contractor shall keep available for inspection and audit at

all reasonable times while this Contract is in effect and until at least six (6) years after Total Performance, all records, documents, and contracts referred to in D33.6.1 for inspection, copying and audit by the City of Winnipeg, the Government of Manitoba and/or the Government of Canada and their respective representatives and auditors, and to produce them on demand; to provide reasonable facilities for such inspections, copying and audits, to provide copies of and extracts from such records, documents, or contracts upon request by the City of Winnipeg, the Government of Manitoba, and/or the Government of Canada and their respective representatives and auditors, and to promptly provide such other information and explanations as may be reasonably requested by the City of Winnipeg, the Government of Manitoba, and/or the Government of Canada from time-to-time.

#### D33.7 Other Obligations

D33.7.1 The Contractor consents to the City providing a copy of the Contract Documents to the Government of Manitoba and/or the Government of Canada upon request from either entity.

D33.7.2 If the Lobbyists Registration Act (Manitoba) applies to the Contractor, the Contractor represents and warrants that it has filed a return and is registered and in full compliance with the obligations of that Act, and covenants that it will continue to comply for the duration of this Contract.

D33.7.3 The Contractor shall comply with all applicable legislation and standards, whether federal, provincial, or municipal, including (without limitation) labour, environmental, and human rights laws, in the course of providing the Work.

D33.7.4 The Contractor shall properly account for the Work provided under this Contract and payment received in this respect, prepared in accordance with generally accepted accounting principles in effect in Canada, including those principles and standards approved or recommended from time-to-time by the Chartered Professional Accountants of Canada or the Public Sector Accounting Board, as applicable, applied on a consistent basis.

D33.7.5 The Contractor represents and warrants that no current or former public servant or public office holder, to whom the Value and Ethics Code for the Public Sector, the Policy on Conflict of Interest and Post Employment, or the Conflict of Interest Act applies, shall derive direct benefit from this Contract, including any employment, payments, or gifts, unless the provision or receipt of such benefits is in compliance with such codes and the legislation.

D33.7.6 The Contractor represents and warrants that no member of the House of Commons or of the Senate of Canada or of the Legislative Assembly of Manitoba is a shareholder, director or officer of the Contractor or of a Subcontractor, and that no such member is entitled to any benefits arising from this Contract or from a contract with the Contractor or a Subcontractor concerning the Work.

**FORM H1: PERFORMANCE BOND**  
(See D12)

KNOW ALL MEN BY THESE PRESENTS THAT

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

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

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

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

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

TENDER NO. 333-2022

2022 Downtown Sidewalk Renewals and Associated Works  
which is by reference made part hereof and is hereinafter referred to as the "Contract".

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

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

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

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

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

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

**SIGNED AND SEALED**  
in the presence of:

\_\_\_\_\_  
(Witness as to Principal if no seal)

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

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

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

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

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

**FORM H2: LABOUR AND MATERIAL PAYMENT BOND**  
(See D12)

KNOW ALL MEN BY THESE PRESENTS THAT

\_\_\_\_\_  
his/its heirs, executors, administrators, successors or assigns (hereinafter called the "Principal"), and

\_\_\_\_\_  
his/its heirs, executors, administrators, successors or assigns (hereinafter called the "Surety"), are held and firmly bound unto **THE CITY OF WINNIPEG** (hereinafter called the "Obligee"), for the use and benefit of claimants as herein below defined, in the amount of

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

of lawful money of Canada, for the payment whereof we, the Principal and the Surety jointly and severally bind ourselves firmly by these presents.

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

TENDER NO. 333-2022

2022 Downtown Sidewalk Renewals and Associated Works

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 promptly make payment to all claimants as hereinafter defined, for all labour, service and material used or reasonably required for use in the performance of the Contract, then this obligation shall be void, otherwise it shall remain in full force and effect subject, however, to the following conditions:

- (a) A claimant is defined as one having a direct contract with the Principal for labour, service and material, or any of them, used or reasonably required for use in the performance of the contract, labour, service and material being construed to include that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental of equipment (but excluding rent of equipment where the rent pursuant to an agreement is to be applied towards the purchase price thereof) directly applicable to the Contract;
- (b) The above-named Principal and Surety hereby jointly and severally agree with the Obligee that every claimant as herein defined, who has not been paid in full before the expiration of a period of ninety (90) days after the date on which the last of such claimant's work, labour or service was done or performed, or materials were furnished by such claimant, may sue on this bond, prosecute the suit to final judgment for such sum or sums as may be justly due claimant, and have execution thereon;
- (c) No suit or action shall be commenced hereunder by any claimant
  - (i) unless claimant shall have given written notice to the Principal and the Surety above-named, within one hundred and twenty (120) days after such claimant did or performed the last of the work, labour or service, or furnished the last of the materials for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished, or for whom the work, labour or service was done or performed. Such notice shall be served by mailing the same by registered mail to the Principal, and Surety, at any place where an office is regularly maintained for the transaction of business, or served in any manner in which legal process may be served in the Province of Manitoba;

- (ii) after the expiration of one (1) year following the date on which Principal ceased work on said Contract; including work performed under the guarantees provided in the Contract;
  - (iii) other than in a court of competent jurisdiction in the Province of Manitoba.
- (d) The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payment by Surety of mechanics liens which may be filed of record against said improvement, whether or not claim for the amount of such lien be presented under and against this bond.
- (e) The Surety shall not be liable for a greater sum than the specified penalty of this bond.

The Principal and Surety hereby agree that The Guarantors' Liability Act (Manitoba) shall apply to this Bond.

IN TESTIMONY WHEREOF, the Principal has hereunto set its hand affixed its seal, and the Surety has caused these presents to be sealed and with its corporate seal duly attested by the authorized signature of its signing authority this

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

SIGNED AND SEALED  
in the presence of:

\_\_\_\_\_  
(Witness as to Principal if no seal)

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

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

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

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

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

**FORM J: SUBCONTRACTOR LIST**  
(See D13)

2022 Downtown Sidewalk Renewals and Associated Works

<u>Portion of the Work</u>	<u>Name</u>	<u>Address</u>
<b><u>SURFACE WORKS</u></b>		
<b>Supply of Materials</b>		
Concrete		
Asphalt		
Base Course		
Interlocking Paving Stones – Concrete		
Detectable Warning Tiles		
Tree Well Grates		
<b>Installation/Placement</b>		
Concrete		
Asphalt		
Base Course		
Interlocking Paving Stones – Concrete		
Detectable Warning Tiles		
Tree Well Grates		
<b><u>UNDERGROUND WORKS</u></b>		
<b>Supply of Materials</b>		
Catch Basin/Manhole Frames & Covers		
Curb Inlet Frames and Box Covers		
Silva Cells		
Drainage Connection Pipe		
<b>Installation/Placement</b>		
Catch Basin/Manhole Frames & Covers		
Curb Inlet Frames and Box Covers		
Silva Cells		
Drainage Connection Pipe		



## 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 Tender shall govern over *The City of Winnipeg Standard Construction Specifications*.
- E1.3 Bidders are reminded that requests for approval of substitutes as an approved equal or an approved alternative shall be made in accordance with B6. In every instance where a brand name or design specification is used, the City will also consider approved equals and/or approved alternatives in accordance with B6.
- E1.4 The following are applicable to the Work:

<u>Drawing No.</u>	<u>Drawing Name/Title</u>	<u>Drawing (Original) Sheet Size</u>
	Cover Sheet	
SE-22-123	Ellice Avenue from Sta 1+00 to 3+00	A1
SE-22-124	Ellice Avenue – Section Drawings & Details	A1
SE-22-125	Ellice Avenue – Section Drawings & Details	A1
SE-22-126	York Avenue from Sta 1+00 to 3+37	A1
SE-22-127	York Avenue from 3+37 to 5+85	A1
SE-22-128	York Avenue from 5+85 to 6+84	A1

#### E2. MOBILIZATION AND DEMOBILIZATION PAYMENT

##### DESCRIPTION

- E2.1 This Specification shall cover all operations relating to the mobilization and demobilization of the Contractor to the project location(s).
- E2.2 The Work to be done by the Contractor under this Specification shall include the furnishing of all superintendence, overhead, labour, materials, equipment, tools, supplies, and all things necessary for and incidental to the satisfactory performance and completion of all Works as hereinafter specified.
- E2.3 The inclusion of a payment item for the Work under this Specification shall not release or reduce the responsibilities of the Contractor under any other specification in this Contract.

##### SCOPE OF WORK

- E2.4 Further to C12 of the General Conditions, where Mobilization and Demobilization is included as a bid item, it shall consist of the following, as applicable:
- (a) Mobilization shall include, but not be limited to:

- (i) All activities and associated costs for transportation of the Contractor's personnel, equipment, and operating supplies to the site, and/or sites, and/or between sites;
  - (ii) Establishment of offices, buildings, other necessary general facilities and equipment parking/staging areas for the Contractor's operations at the site or sites;
  - (iii) Premiums paid for performance and payment bonds including coinsurance and reinsurance agreements as applicable;
  - (iv) General cleanup and housekeeping needed maintain a neat and orderly project site(s);
  - (v) Other job related items.
- (b) Demobilization shall include, but not be limited to:
- (i) All activities and costs for transportation of personnel, equipment, and supplies not used in the project from the site, and/or sites, and/or between sites;
  - (ii) Disassembly, removal, and site cleanup and restoration of offices, buildings, and other facilities assembled on the site and/or sites;
  - (iii) Repair of access roads, temporary haul roads, and equipment parking areas leaving the project site in the same or better condition than at the start of the project;
  - (iv) General cleanup and housekeeping needed to restore a neat and orderly project site.

E2.5 Access to the site, equipment parking, and staging areas are limited to that shown on the drawings or as approved by the Contract Administrator.

#### MEASUREMENT AND PAYMENT

E2.6 The lump-sum price for the Mobilization and Demobilization bid item shall not exceed five percent (5.00%) of the total bid price for the Contract.

E2.6.1 Further to B9, B17, C12 and E2.6, should the lump sum price exceed 5% of the Total Bid Price the lump sum price will be reduced to 5% of the Total Bid Price, the Total Bid Price will be determined using the reduced lump sum price and payment will be based on the reduced lump sum price.

E2.7 Payment for Mobilization:

- (a) 60% of the lump-sum price will be paid to the contractor for Mobilization on the first Progress Estimate for the Contract.

E2.8 Payment for Demobilization:

- (a) The remaining 40% of the lump-sum price will be paid upon:
  - (i) Restoration of the site and/or sites to the satisfaction of the Contract Administrator;
  - (ii) Distribution of the Declaration of Total Performance.

E2.9 Pay Reduction for Accessibility Plan

- (a) The Demobilization payment will be reduced by the number of pay adjustments incurred in accordance with D15 and as determined by the Contract Administrator.

E2.10 Mobilization and Demobilization will be paid only once (to a maximum of 100%), regardless of the number of times the Contractor mobilizes to the site and/or sites.

### 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, 3.7 and 3.8 of CW 1130:

- (a) Where directed by the Contract Administrator, 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 on City Streets (MTTC), the Contractor ("Construction Agency" in the Manual) shall be responsible for placing, maintaining and removing the appropriate temporary traffic control devices as specified by the MTTC, the Contract Drawings, Staging Plans and Traffic Management Plans or by the Traffic Management Branch of the City of Winnipeg Public Works Department. The Contractor shall bear all costs associated with the placement of temporary traffic control devices by their own forces or Subcontractor.
- (c) In addition, the Contractor shall be responsible for removing, placing and maintaining all regulatory signing including but not limited to:
  - (i) Parking restrictions;
  - (ii) Stopping restrictions;
  - (iii) Turn restrictions;
  - (iv) Diamond lane removal;
  - (v) Full or directional closures on a Regional Street;
  - (vi) Traffic routed across a median;
  - (vii) Full or directional closure of a non-regional street where there is a requirement for regulatory signs (turn restrictions, bus stop relocations, etc.) to implement the closure.
- (d) The Contractor shall remove and stockpile any regulatory signage not required during construction such as, but not limited to, parking restrictions, turn restrictions and loading restrictions.

- E4.2 Further to E4.1(c), the Contractor shall make arrangement with the Contract Administrator to supply regulatory signs as required.
- E4.3 Upon request from the Contract Administrator, the Contractor shall provide records demonstrating that the site has been maintained.
- E4.4 Further to E4.1(c) and E4.1(d) the Contractor shall make arrangements with the Traffic Services Branch of the City of Winnipeg to reinstall the permanent regulatory signs after the Contract Work is complete. The Contractor shall make arrangements to drop off the stockpiled materials to Traffic Services at 495 Archibald Street.
- E4.5 Any changes to the approved Traffic Management Plan must be submitted to the Contract Administrator a minimum of five (5) Working Days prior to the required change for approval.
- E4.6 If the Contract Administrator determines that the Contractor is not performing Traffic Control in accordance with this specification, Traffic Services may be engaged to perform the Traffic Control. In this event the Contractor shall bear costs charged to the project by the Traffic Services Branch of the City of Winnipeg in connection with the required Works.
- E4.7 Further to E4.1 (b) the contractor shall obtain and maintain all lane closure requests through the City of Winnipeg Traffic Management Branch. All lane closure requests are to be approved by the Contract Administrator prior to submission.

## **E5. TRAFFIC MANAGEMENT**

- E5.1 Further to clause 3.7 of CW 1130:
- (a) Single lane closures on intersecting and/or adjoining Regional Streets shall only be permitted during non-peak periods when required for construction activities when approved by the Traffic Management Branch. Storage/parking of materials, equipment or vehicles is not permitted on Regional Streets at any time unless approved by the Contract Administrator, in consultation with the Traffic Management Branch.
- E5.1.1 Ellice Avenue Work - Contractor to maintain a minimum of one lane eastbound and westbound at all times.
- E5.1.2 Maintain a minimum of two eastbound lanes of traffic on York Avenue during the morning peak period (07:00 – 09:00) and during the afternoon peak period (15:00 – 18:00).
- E5.1.3 Intersecting local street, median opening and private approach access shall be maintained at all times unless joint/slab repairs or planing/paving operations require temporary closure. Temporary closures are to be staggered such that consecutive intersections are not closed at the same time.
- E5.1.4 Flag persons may be necessary to maintain the flow of traffic during certain work operations.
- E5.1.5 Should the Contractor be unable to maintain pedestrian or vehicular access to a residence or business, he/she shall review the planned disruption with the business or residence and the Contract Administrator, and take reasonable measures to minimize the impact. The Contractor shall provide a minimum of 24 hours notification to the affected residence or business and the Contract Administrator, prior to disruption of access.
- E5.1.6 Pedestrian access must be maintained at all times. One pedestrian crossing must be maintained at each intersection at all times.
- E5.1.7 Pedestrian and ambulance/emergency vehicle access must be maintained at all times.

## **E6. WATER OBTAINED FROM THE CITY**

- E6.1 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.

## **E7. SURFACE RESTORATIONS**

- E7.1 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.

## **E8. INFRASTRUCTURE SIGNS**

- E8.1 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

## **E9. CRUSHED BLACK GRANITE**

### DESCRIPTION

- E9.1 This Specification covers the installation of black crushed granite mulch as indicated on the drawings.

### SUBMITTALS

- E9.2 Prior to construction, submit the following to the Contract Administrator;
- E9.2.1 Mulch samples to the Contract Administrator for approval prior to installation.
- (a) A Black Crushed Granite sample. Minimum sample size to be 2.5 kg.

### MATERIALS

- E9.3 Non-woven geotextile to CW 3120.
- E9.4 Black Granite Mulch: shall be 20 to 40 mm granite mulch, black in colour. The material shall be free of organic and inorganic debris.

### CONSTRUCTION METHODS

- E9.5 Clear excavation of all construction debris, trash, rubble and any foreign material. Excavate and remove oil spills and other soil contamination sufficiently to remove the harmful material.
- E9.6 All excavated material shall be disposed of offsite in accordance with CW 1130.
- E9.7 Crushed Black Granite: supply and install 75 mm deep crushed black granite at locations and levels as shown on the Construction Drawings or as directed by Contract Administrator.

### MEASUREMENT AND PAYMENT

- E9.8 Crushed Black Granite
- E9.8.1 Supply and installation of "Crushed Black Granite" shall be made on an unit basis and paid for at the Contract Unit Price per square metre placed at the specified depth. In which payment shall be considered compensation in full for the supply of all materials and the performing of all operations necessary to complete the Work as specified including any items incidental to the Work of this specification.

## **E10. PORTLAND CEMENT CONCRETE SIDEWALK WITH BLOCK OUTS FOR INDICATOR SURFACES**

### DESCRIPTION

E10.1 This specification shall supplement CW 3325-R5 "Portland Cement Concrete Sidewalks".

### CONSTRUCTION METHODS

E10.2 Add the following to section 9 :

E10.2.1 As shown on the drawings and as directed by the Contract Administrator, construct sidewalk with block outs and/or monolithic curb and sidewalk with block outs, to allow for the installation of indicator surfaces.

E10.2.2 Verify dimensions of paving stones (indicator surface) prior to construction of the block-outs. Gaps between paving stones and concrete pavement shall not exceed five (5) millimetres.

E10.2.3 Concrete curbs for monolithic curb and sidewalk with block outs shall be constructed in accordance with CW 3240.

### MEASUREMENT AND PAYMENT

E10.3 Add the following to section 12 :

E10.3.1 Construction of concrete sidewalks with block outs for indicator surfaces will be measured on surface area basis. The surface area to be paid for shall be the number of square metres constructed in accordance with this specification and accepted by the Contract Administrator, as computed by measurements made by the Contract Administrator.

### BASIS OF PAYMENT

E10.4 Add the following to section 13 :

E10.4.1 Construction of concrete sidewalks with block outs for indicator surfaces will be paid for at the Contract Unit Price per square meter for the "Items of Work" listed here below, measured as specified herein, which price shall be payment in full for supplying all materials and for performing all operations herein described and all other items incidental to the work included in this specification.

E10.4.2 Items of Work:

- (a) 100 mm Sidewalk with Block Outs
- (b) 150 mm Sidewalk with Block Outs
- (c) Monolithic Curb and 100 mm Sidewalk with Block Outs\*
- (d) Monolithic Curb and 150 mm Sidewalk with Block Outs\*

\* - reveal height and type

E10.4.3 Concrete thickness greater than the specified sidewalk thickness as a result of shaping the base material to accommodate the block outs is incidental to the listed Items of Work.

E10.4.4 Construction of 125 mm reveal height modified barrier curb on radii and 8-12 mm reveal height monolithic curb ramp is incidental to the construction of 'Monolithic Curb and 100 mm Sidewalk with Blockouts (125 mm reveal height, dowed).

## **E11. PAVING STONES FOR INDICATOR SURFACES**

### DESCRIPTION

E11.1 This specification shall supplement CW 3330-R5 "Installation of Interlocking Paving Stones"

## MATERIALS

E11.2 Add the following to section 5 :

E11.2.1 Paving Stones for indicator surfaces shall be as shown on the drawings.

E11.2.2 Paving Stones for indicator surfaces shall be :

Barkman Concrete paving stones -  
Charcoal Holland Paver (60mm X 210 mm X 210 mm)  
<https://www.barkmanconcrete.com/>

## CONSTRUCTION METHODS

E11.3 Add the following to section 9.2 "Preparation of Sub-grade, Sub-base and Sand-base" :

E11.3.1 Preparation of Sand-Base for Paving Stones in Sidewalk Block Outs.

E11.3.2 Place a 15mm layer of bedding sand in the blocked out sidewalk areas.

E11.3.3 The bedding sand shall be spread and levelled so that the paving stones when installed are 5 mm higher than the finished grade.

E11.3.4 No more sand shall be spread than can be covered in with paving stone on the same day.

E11.3.5 The bedding sand shall not be compacted or disturbed prior to laying the paving stones.

E11.4 Add the following to section 9.3 "Installation of Paving Stones" :

E11.4.1 For indicator surface paving stones, commence installation of paving stones against the long edge of the block out to obtain the straightest possible course of installation.

## MEASUREMENT AND PAYMENT

E11.5 Add the following to section 12 :

E11.6 Supply and Installation of Paving Stones for Indicator Surfaces

E11.6.1 Paving stones for indicator surfaces will be measured on surface area basis. The surface area to be paid for shall be the number of square metres constructed in accordance with this specification and accepted by the Contract Administrator, as computed by measurements made by the contract Administrator.

## BASIS OF PAYMENT

E11.7 Add the following to section 13 :

E11.7.1 The supply and installation of paving stones for indicator surfaces will be paid for at the Contract Unit Price per square meter for "Paving Stone Indicator Surface", measured as specified herein, which price shall be payment in full for supplying all materials and for performing all operations herein described and all other items incidental to the work included in this specification.

E11.7.2 Concrete thickness greater than the specified sidewalk thickness as a result of shaping the base material to accommodate the block outs is incidental to the listed Items of Work.

## E12. REMOVAL OF EXISTING INTERLOCKING PAVING STONES

### DESCRIPTION

E12.1 This specification shall supplement CW 3330-R5 and shall cover all operations related to the removal of existing interlocking paving stones.

## CONSTRUCTION METHODS

- E12.2 Removal of existing interlocking paving stones (concrete pavers and clay pavers) shall include: removal of paving stones, base course and concrete stabilized fill material as required; disposal of all materials as approved by the Contract Administrator.

## MEASUREMENT AND PAYMENT

- E12.3 Removal of existing interlocking paving stones will be measured on an area basis and paid for at the Contract Unit Price per square metre for "Removal of Existing Paving Stones". The area to be paid will be the total number of square metres removed in accordance with this specification, accepted and measured by the Contract Administrator.

## **E13. SALVAGE AND REINSTALL BICYCLE HOOPS**

### DESCRIPTION

- E13.1 General
- E13.1.1 This specification covers the removal, salvaging and re-installation of existing bicycle hoops along St. Mary Avenue.

### CONSTRUCTION METHODS

- E13.2 Removal and Salvage of Bicycle Hoops
- E13.2.1 Existing bicycle hoops 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 Contractor Administrator.
- E13.2.2 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.
- E13.3 Re-Installation of Salvaged Bicycle Hoops
- E13.3.1 Re-Install salvaged bicycle hoops to the satisfaction of the Contract Administrator

### MEASUREMENT AND PAYMENT

- E13.4 Remove and Reinstall Salvaged Bicycle Hoops
- E13.4.1 The removal and reinstall of bicycle hoops shall be measured on a unit basis and paid for at the Contract Unit Price for "Salvage and Reinstall Bicycle Hoop", which payment shall be considered compensation in full for performing of all operations necessary to complete the Work as specified including any items incidental to the Work of this specification.

## **E14. TREE REMOVAL**

### DESCRIPTON

- E14.1 The Contractor is to note that the tree removal is to include the removal of the tree as shown on the drawings, as well as the root masses associated with the tree.

### CONSTRUCTION METHODS

- E14.2 As per CW 3010.

### MEASUREMENT AND PAYMENT

- E14.3 Tree removal will be paid for at the Contract Unit Price per each for "Tree Removal", measured on a per unit basis, which price shall be payment in full for completing all operations herein



described and all other items incidental to the work included in this Specification, measured and accepted by the Contract Administrator.

## **E15. TREE GRATES AND FRAMES**

### DESCRIPTION

E15.1 This Specification shall cover the supply and installation of cast iron grates and frames for areas as indicated on the drawing. The Work to be done under this Specification shall include the furnishing of all superintendence, overhead, labour, materials, equipment, tools, supplies, and all things necessary and incidental to the satisfactory performance and completion of all Work as specified.

### MATERIALS

E15.2 Tree Grates

- (a) 1219 x 1219mm Metropolitan tree grate Model #R-8706-1A, including frame, grey iron finish. Available from Crozier Enterprises ph. 416-214-7727, or approved equal.

### CONSTRUCTION METHODS

E15.3 Installations shall be as per Manufacturer's specifications available at: <https://www.reliance-foundry.com/hardscape/tree-grates/r-8706-1a> or <https://groupnei.com/product/8706-1a/>

E15.4 All work is to be located and installed in accordance with the Drawings and manufacturer's specifications.

E15.5 Tree grates to be installed and true to correct elevations and location, as directed by the Contract Administrator.

E15.6 Tree grates to be carefully handled so that no parts will be bent, broken, or otherwise damaged. Contractor is responsible for replacing any damaged grates, prior to installation, at no cost to the City.

E15.7 Install the grate in galvanized tree grate frame. Tree grate to sit flush with the top of frame lip.

### MEASUREMENT AND PAYMENT

E15.8 The supply and installation of Tree Grates and Frames will be measured on a unit basis and paid for at the Contract Unit Price each for "Supply & Install Cast Iron Tree Well Grate and Frame - ADA Compliant - Neenah Foundry 8709-A 48"x48" with 458mm Diameter Tree Opening". The Tree Grates and Frames to be paid for will be the total number of Tree Grates and Frames supplied and installed in accordance with this specification, accepted and measured by the Contract Administrator.

## **E16. TREE WELL CURB REMOVAL**

### DESCRIPTION

E16.1 The Contractor is to note that the tree well curb removal is as shown on the drawings, as well as the soil medium, and root masses associated with any remaining tree stumps.

### CONSTRUCTION METHODS

E16.2 Removal of Tree Well Curb

E16.2.1 Protect trees as per E3.

E16.2.2 Remove concrete tree well curb sections at locations shown on the Drawings or as directed by the Contract Administrator.

- E16.2.3 Saw-cut existing tree well curb full depth or as directed by the Contract Administrator.
- E16.2.4 Remove existing soil medium
- E16.2.5 Ensure the removal methods do not chip or damage the tree well curb that is remaining.
- E16.2.6 Re saw-cut damaged or chipped curb beyond the removal limits.
- E16.2.7 Remove damaged curb reinforcing as directed by the Contract Administrator.
- E16.2.8 Dispose of removed curb in accordance with Section 3.4 of CW 1130.

#### MEASUREMENT AND PAYMENT

- E16.3 Tree well curb removal will be paid for at the Contract Unit Price per linear meter for "Concrete Curb Removal", measured on a per linear meter basis, which price shall be payment in full for completing all operations herein described and all other items incidental to the work included in this Specification, measured and accepted by the Contract Administrator.

### **E17. REINFORCED CONCRETE TREE WELL CURB**

#### DESCRIPTION

- E17.1 This Specification shall cover the operations relating to the construction of reinforced concrete tree well curb. The Work to be done under this Specification shall include the furnishings of all superintendence, overhead, labour, materials, equipment, tools, supplies, and all other things necessary for and incidental to the satisfactory performance and completion of all Work specified.

#### MATERIALS

- E17.2 Concrete Mix
  - (i) Cement: Type 50 Sulphate resistant
  - (ii) Maximum Coarse Aggregate: 20 mm
  - (iii) Minimum Compressive Strength at 28 days: 35 Mpa
  - (iv) Minimum Cement Content: 310 Kg/cu.m
  - (v) Maximum Water/Cement Ratio: 0.45
  - (vi) Class of Exposure: C-2
  - (vii) Maximum Slump: 80 mm + or - 20 mm
  - (viii) Air Content: 5 – 8%
  - (ix) Fly ash Content: Maximum 15% of Cementitious Material
- E17.3 10M Longitudinal Deformed Bars

#### CONSTRUCTION METHODS

- E17.4 Construction of Reinforced Concrete Tree Well Curb
  - E17.4.1 The Contractor must ensure that the extent of all buried utilities and services are located and if necessary, protected and exposed prior to any excavation.
  - E17.4.2 Excavate to accommodate for forms and granular base.
  - E17.4.3 Dispose of material in accordance with section 3.4 of CW 1130.
  - E17.4.4 Compact granular base in accordance with specification CW 3110
  - E17.4.5 Place 10M Longitudinal Deformed Bars for reinforcement in accordance with section 9.2 of CW 3310 and as specified on the Contract drawings.
  - E17.4.6 Place 20M Vertical Deformed Bars for reinforcement as shown on the contract drawings

- E17.4.7 Place Concrete for Tree Well Curb with the intention of leaving forms in place to prevent granular base undermining during future tree well excavation activities.

#### MEASUREMENT AND PAYMENT

- E17.5 Construction of Reinforced Concrete Tree Well Curb

- E17.5.1 Construction of Reinforced Concrete Tree Well Curb will be measured on a length basis and paid for at the Contract Unit Price per metre for "Reinforced Concrete Tree Well Curb". The length to be paid for will be the total number of metres of Reinforced Concrete Tree Well Curb constructed in accordance with this Specification, accepted and measured by the Contract Administrator.

### **E18. PLANTING MEDIUM & FINISHED GRADE**

#### DESCRIPTION

- E18.1 This Specification covers the supply and installation of planting medium in tree vaults.

#### REFERENCES

- E18.2 Agriculture and Agri-Food Canada
- E18.2.1 The Canadian System of Soil Classification, Third Edition, 1998
- E18.3 Canadian Council of Ministers of the Environment (CCME) Guidelines
- E18.4 The City of Winnipeg Standard Construction Specifications CW 1130 and CW 3540

#### SUBMITTALS

- E18.5 Submit 0.5kg sample of topsoil to National Testing Laboratory, or approved alternate, and indicate present use and intended use. Prepare and ship sample in accordance with Provincial regulations and testing laboratory requirements.
- E18.6 Submit two (2) copies of soil analysis and recommendations for corrections to Contract Administrator.

#### QUALITY ASSURANCE

- E18.7 Testing of planting medium to be carried out and paid for by Contractor. Prepare and ship planting medium samples to approved laboratory in accordance with Provincial regulations and laboratory requirements, indicating intended use on each sample.
- E18.8 Test planting medium for nutrients N, P, K, micronutrients, soluble salt content, pH value and OM (organic matter)
- E18.9 Acceptance of planting medium is subject to an inspection of material and confirmation of test results. Do not commence soft landscaping work until Contract Administrator has accepted planting medium.

#### DELIVERY, STORAGE AND HANDLING

- E18.10 Store materials in a dry area, protected from freezing, sedimentation and contamination.
- E18.11 Deliver and store fertilizer in waterproof bags labeled with weight, analysis and name of manufacturer.

#### MATERIALS

- E18.12 Planting Medium Soil Mix

- E18.12.1 Planting Medium: In accordance with CW 3540 for topsoil except organic matter to be in the range of 5-10%.
- E18.12.2 Peatmoss: deliver from partially decomposed fibrous or cellular stems and leaves of species of sphagnum mosses. Elastic and homogeneous, brown in color. Free of wood and deleterious material that could prohibit growth. Shredded particle minimum size: 5mm.
- E18.12.3 Sand: hard fine silica sand, well washed and free of impurities, chemical or organic matter, coarse texture, and to the following gradation.

Particle Size (mm) %	Passing through Screen
2.0	100%
1.0	95 to 100%
0.5	80 to 100%
0.25	0 to 30%
0.15	0 to 8%
0.75	0 to 1%

- E18.12.4 Fertilizer: Synthetic start-up slow release fertilizer with a N-P-K analysis of 12-36-15 ratio at a rate of 4kg per 100 sq. m. (8 pounds per 100 sq. ft.)

#### CONSTRUCTION METHODS

##### E18.13 Excavation

- E18.13.1 Excavate tree vaults by hand unless otherwise directed by Contract Administrator. Dispose of all rock, clay soils and other deleterious materials off Site.
- Protect bottom of excavations against freezing.
  - Remove water that has entered the excavated tree pit prior to planting. Notify Contract Administrator if water source is groundwater.
  - Verify and obtain approval by Contract Administrator of tree vaults with geotextile prior to compacted soil mound and planting medium placement
- E18.13.2 Planting Medium Placement
- Place planting medium in uniform layers over approved, unfrozen sub-grade, to the depth indicated on the Drawings.
  - Eliminate rough spots and low areas. Prepare a loose, friable bed, boot firm and level
- E18.13.3 Soil Amendments
- Apply lime, sulphur, or other soil amendment at a rate determined and recommended from planting medium sample test
  - Mix soil amendment well into full depth topsoil prior to application of fertilizer
- E18.13.4 Finished Grading
- Per CW 3540
  - Fine grade entire soil area to elevations as indicated on the drawings. Eliminate rough spots and low areas. Leave surfaces smooth, uniform and firm against foot printing with a fine loose texture

#### SURPLUS MATERIAL

- E18.14 Dispose of unused planting medium off Site in accordance with CW 1130

#### CLEANING

- E18.15 Perform cleaning to remove accumulated environmental dirt from all paved surfaces of building faces. Remove surplus materials, rubbish, tools and equipment barriers

## CLEANING

- E18.16 Perform cleaning to remove accumulated environmental dirt from all paved surfaces of building faces. Remove surplus materials, rubbish, tools and equipment barriers

## MEASUREMENT AND PAYMENT

- E18.17 Supply and installation of planting medium will be measured on a volume basis and paid for at the Contract Unit Price per cubic metre for "Supply and Install Planting Medium". 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

## E19. SOIL CELLS

### DESCRIPTION

- E19.1 Provide all labour, materials, methods, equipment and accessories for the supply and installation of Soil Cells and related excavation, geotextile, aggregate sub-base, aggregate base, and Silva Cell system.

### MATERIALS

- E19.2 Geotextile to CW3130
- E19.3 Geogrid to CW3135
- E19.4 Aggregate sub-base to CW3110
- E19.5 Aggregate base to CW3110
- E19.6 Silva Cell System
- (a) 2-3x Silva Cell System Components: one(1) Base, one(1) Deck, six(6) 2x posts and six(6) 1x posts (600mm x 1200mm x 1092mm)
  - (b) Root Barrier
  - (c) Cable Ties, per Silva Cell specifications
  - (d) Pins, per Silva Cell specifications
  - (e) Silva Cell system available from DeepRoot Canada Corp. ph.: 604-687-0899. Contact: Michael James, General Manager.

### CONSTRUCTION METHODS

- E19.7 Installations shall be as per Manufacturer's specifications available at <https://www.deeproot.com/products/Silva-cell/resources/>
- E19.8 Silva Cell modules must be transported and stored on manufacturers pallet with pallet wrap intact until ready for installation. Pallets should be positioned on firm level base, so as not to impede traffic or work flow.
- E19.9 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 CW1120.
- E19.10 Excavate and confirm to the dimensions and depth shown on the Drawings, including provision for drainage and base course layer, allowing 200mm (8") additional clearance in length and width. Side walls of excavated pit to be clean, straight, and within 15° of vertical. Soft dig / daylighting process to be used in area of existing underground utilities. Ensure subgrade slopes to subdrain trench toward perforated drainage pipe system (min 2.0% slope).

- E19.11 Clear excavation of all construction debris, trash, rubble and any foreign material. Excavate and remove oil spills and other soil contamination sufficiently to remove the harmful material. Fill over excavations with approved fill and compact to the required subgrade compaction.
- E19.12 All excavated material shall be disposed of off-site in accordance with specification CW1130.
- E19.13 Compact sub-grade in accordance with specification CW3110.
- E19.14 Install reinforcement geotextile fabric in accordance with CW3130.
- E19.15 Install perforated drainage pipe in accordance with specification CW3120, and as shown on the Drawings.
- E19.16 Install aggregate sub-base below Silva Cell system to the depths indicated in the Drawings and compact to a minimum of 95% of maximum dry density at optimum moisture content, in accordance with ASTM D 698 Standard Proctor Method.
- E19.17 Assemble and install Silva Cell system in accordance with manufacturers specifications.
- E19.18 Install geogrid. Geogrid to line perimeter of Silva Cell system with 150mm toe (outward from base) and 300mm excess (over top of deck).
- E19.19 Load planting medium into the Silva Cell system. Install planting medium in accordance with manufacturers specifications.
- E19.20 Install backfill in 200mm lifts to top of Silva Cell system.
- E19.21 Place geotextile over top of Silva Cell system, 450mm overlap past excavation.
- E19.22 Install root barrier directly adjacent to concrete edge restraint.

#### MEASUREMENT AND PAYMENT

- E19.23 The construction of soil cells shall be measured on a volume basis, and paid for at the Contract Unit Price per cubic metre as "Soil Cells with Sub-Drain". The volume to be paid for shall be the total cubic metre area installed in accordance with this specification, accepted and measured by the Contract Administrator. Inclusive of excavation, granular drainage material, geotextile, geogrid, aggregate sub-base, Silva Cell system and granular backfill. Over-excavation will not be paid.
- E19.24 The construction of soil cells shall be measured on a volume basis, and paid for at the Contract Unit Price per cubic metre as "Soil Cells with Sump Pit". The volume to be paid for shall be the total cubic metre area installed in accordance with this specification, accepted and measured by the Contract Administrator. Inclusive of excavation, granular drainage material, geotextile, geogrid, aggregate sub-base, Silva Cell system and granular backfill. Over-excavation will not be paid.

### **E20. INSTALLATION OF TRAFFIC SERVICES SIGN CLAMPS**

#### DESCRIPTON

- E20.1 General
  - E20.1.1 This Specification covers all operations relating to the Installation of Traffic Services Sign Clamps.
  - E20.1.2 The Work to be done by the Contractor under this Specification shall include the furnishing of all superintendence, overhead, labor, equipment, tools, supplies, and all things necessary for and incidental to the satisfactory performance and completion of all Works as hereinafter specified.

#### MATERIALS

## E20.2 Traffic Services Sign Clamps

- E20.2.1 The Contract Administrator will arrange for Traffic Services to have the sign clamps delivered to site. The Contractor is to store the Sign Clamps in a secure location until the material is ready for installation.

### CONSTRUCTION METHODS

## E20.3 Installation

- E20.3.1 Installation of Traffic Services Sign Clamps is to be done in conjunction with the Installation of the 100mm Concrete Sidewalk and placed into the fresh concrete at locations determined by Traffic Services or by the Contract Administrator, The Base Course material is to be prepared at each location to accommodate the Installation of Traffic Services Sign Clamps.

### MEASUREMENT AND PAYMENT

- E20.4 Installation of Traffic Services Sign Clamps will be incidental to the “Monolithic Curb and 100mm Sidewalk with Block Outs”, and “Concrete Monolithic Curb and Sidewalk”. No measurement and payment will be made for these Items of Work.

## **E21. CONCRETE CONSTITUENT MATERIALS, MIX DESIGN REQUIREMENTS, AND HOT AND COLD WEATHER CONCRETING**

- E21.1 This Specification covers Portland cement concrete constituent materials and design requirements for the preparation of Portland Cement Concrete for all concreting operations relating to the construction of pavements, curbs, gutters, private approaches, bull-noses, median slabs, median, safety median and boulevard splash strips, sidewalk and other related concrete works and is contained in Appendix ‘A’.
- E21.2 This Specification also covers hot and cold weather concreting

## **Appendix 'A' – Concrete Constituent Materials Mix Design Requirements and Hot and Cold Weather Concreting**



## **Appendix 'B' – Traffic Control**