



THE CITY OF WINNIPEG

TENDER

TENDER NO. 467-2026

**KILCONA PARK ROADWAY CONSTRUCTION AND HARBOURVIEW ROADWAY
RECONSTRUCTION**

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 Kilcona Park Roadway Construction and Harbourview Roadway Reconstruction

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 12:00 noon Winnipeg time, July 10, 2026.

B2.2 The Contract Administrator or the Manager of Purchasing may extend the Submission Deadline by issuing an addendum at any time prior to the time and date specified in B2.1.

B3. SITE INVESTIGATION

B3.1 Further to C3.1, a Site meeting will be held at 1:00 PM on July 7, 2026 to provide Bidders access to the Site. Bidders shall meet representatives of the City and the Contract Administrator at the Weigh Scale building which is accessed by the approach across from 1550 Springfield Road.

B3.2 The Bidder is advised that access to the Site outside of this meeting is restricted by locked gates.

B3.3 The Bidder shall not be entitled to rely on any information or interpretation received at the Site investigation unless that information or interpretation is the Bidder's direct observation or is provided by the Contract Administrator in writing. No notes or minutes of the meeting will be recorded or distributed.

B3.4 The Bidder is responsible for inspecting the Site, the nature of the Work to be done and all conditions that might affect their Bid or their performance of the Work and shall assume all risk for conditions existing or arising in the course of the Work which have been or could have been determined through such inspection.

B4. ENQUIRIES

B4.1 All enquiries shall be directed to the Contract Administrator identified in D3.1.

B4.2 If the Bidder finds errors, discrepancies or omissions in the 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.

B4.3 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.

B4.4 Responses to enquiries which, in the sole judgment of the Contract Administrator, do not require a correction to or a clarification of the Tender will be provided by the Contract Administrator only to the Bidder who made the enquiry.

B4.5 The Bidder shall not be entitled to rely on any response or interpretation received pursuant to B4 unless that response or interpretation is provided by the Contract Administrator in writing.

B4.6 Any enquiries concerning submitting through MERX should be addressed to:

MERX Customer Support
Phone: 1-800-964-6379
Email: merx@merx.com

B5. CONFIDENTIALITY

- B5.1 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 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.
- B5.2 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.

B6. ADDENDA

- B6.1 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.
- B6.2 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.
- B6.3 Addenda will be available on the MERX website at www.merx.com.
- B6.4 The Bidder is responsible for ensuring that they have 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.
- B6.5 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.
- B6.6 Notwithstanding B4, enquiries related to an Addendum may be directed to the Contract Administrator indicated in D3.

B7. SUBSTITUTES

- B7.1 The Work is based on the Plant, Materials and methods specified in the Tender.
- B7.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.
- B7.3 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.
- B7.4 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; and
 - (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.
- B7.5 The Contract Administrator, after assessing the request for approval of a substitute, may in their 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.
- B7.6 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.
- B7.6.1 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 they wish to inform.
- B7.7 If the Contract Administrator approves a substitute as an “approved equal”, any Bidder may use the approved equal in place of the specified item.
- B7.8 If the Contract Administrator approves a substitute as an “approved alternative”, any Bidder bidding that approved alternative may base their 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 B18.
- B7.9 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.
- B8. BID COMPONENTS**
- B8.1 The Bid shall consist of the following components:
 - (a) Form A: Bid;
 - (b) Form B: Prices; and
 - (c) Form G1: Bid Bond and Agreement to Bond.
- B8.2 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.
- B8.3 The Bid shall be submitted electronically through MERX at www.merx.com.
- B8.3.1 Bids will **only** be accepted electronically through MERX.
- B8.4 Bidders are advised that inclusion of terms and conditions inconsistent with the Tender document, including the General Conditions, will be evaluated in accordance with B18.1(a).

B9. BID

- B9.1 The Bidder shall complete Form A: Bid/Proposal, making all required entries.
- B9.2 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 their own name, their 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; and
 - (d) if the Bidder is carrying on business under a name other than their own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.
- B9.2.1 If a Bid is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B9.2.
- B9.3 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.
- B9.4 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 their 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 their duly authorized officer or officers;
 - (d) if the Bidder is carrying on business under a name other than their 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.
- B9.4.1 The name and official capacity of all individuals signing Form A: Bid/Proposal should be entered below such signatures.
- B9.5 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.

B10. PRICES

- B10.1 The Bidder shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.
- B10.1.1 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 C24. Any such costs shall be determined in accordance with C24.
- B10.2 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.
- B10.3 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.
- B10.4 Payments to Non-Resident Contractors are subject to Non-Resident Withholding Tax pursuant to the *Income Tax Act* (Canada).

B10.5 The Bidder shall enter the Total Bid Price from Form B: Prices into the Total Bid Price field in MERX.

B10.5.1 Bidders are advised that the calculation indicated in B18.4 will prevail over the Total Bid Price entered in MERX.

B11. DISCLOSURE

B11.1 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.

B11.2 The Persons are:

(a) N/A

B12. CONFLICT OF INTEREST AND GOOD FAITH

B12.1 Further to C3.3, Bidders, by responding to this Tender, declare that no Conflict of Interest currently exists, or is reasonably expected to exist in the future.

B12.2 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 their 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.

B12.3 In connection with their Bid, each entity identified in B12.2 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.

- B12.4 Without limiting B12.3, the City may, in their 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 their 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 their sole discretion, to avoid or mitigate the impact of such Conflict of Interest.
- B12.5 Without limiting B12.3, 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 their sole discretion:
- (a) disqualify a Bidder that fails to disclose a perceived, potential or actual Conflict of Interest of the Bidder or any of their 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 their 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 B12.4 to avoid or mitigate a Conflict of Interest; and
 - (d) disqualify a Bidder if the Bidder, or one of their 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.
- B12.6 The final determination of whether a perceived, potential or actual Conflict of Interest exists shall be made by the City, in their sole discretion.

B13. QUALIFICATION

- B13.1 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.
- B13.2 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, Purchasing Division website at <https://www.winnipeg.ca/matmgt/Templates/files/debar.pdf>
- B13.3 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;
 - (b) be fully capable of performing the Work required to be in strict accordance with the terms and provisions of the Contract;
 - (c) have a written workplace safety and health program if required pursuant to The Workplace Safety and Health Act (Manitoba); and
 - (d) have completed the Accessible Customer Service online training required by the Accessibility for Manitobans Act (AMA) (see B13.5 and C6.19).

- B13.4 Further to B13.3(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 at https://www.winnipeg.ca/matmgt/Safety/safety_consultant.stm.
- B13.5 Further to B13.3(d), the Bidder acknowledges that they and all Subcontractors have obtained training required by the Accessibility for Manitobans Act (AMA) available at <https://accessibilitymb.ca/resources-events-and-training/online-training.html> for anyone that may have any interaction with the public on behalf of the City of Winnipeg.
- B13.6 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.
- B13.7 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.

B14. BID SECURITY

- B14.1 The Bidder shall include in their 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 at: <https://www.winnipeg.ca/media/4929/>.
- B14.2 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; and
 - (e) The results of the verification must provide a clear, immediate and printable indication of pass or fail regarding B14.2(a).
- B14.3 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 B18.1(a).

- B14.4 Bonds passing the verification process will be treated as original and authentic.
- B14.4.1 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.
- B14.5 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.
- B14.6 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.

B15. OPENING OF BIDS AND RELEASE OF INFORMATION

- B15.1 Bids will not be opened publicly.
- B15.2 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.
- B15.3 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.
- B15.4 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).
- B15.4.1 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.

B16. IRREVOCABLE BID

- B16.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 11 of Form A: Bid/Proposal.
- B16.2 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.

B17. WITHDRAWAL OF BIDS

- B17.1 A Bidder may withdraw their Bid without penalty prior to the Submission Deadline.

B18. EVALUATION OF BIDS

- B18.1 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 B13 (pass/fail);
 - (c) Total Bid Price; and
 - (d) Economic analysis of any approved alternative pursuant to B7.

- B18.2 Further to B18.1(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.
- B18.3 Further to B18.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in their Bid or in other information required to be submitted, that they are qualified.
- B18.4 Further to B18.1(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.
- B18.4.1 Further to B18.1(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.
- B18.4.2 Where MRST is shown on Form B as a separate line item, if that Line item is not completed, the MRST shall be considered to be included in the Total Bid Price.
- B18.4.3 Bidders are advised that the calculation indicated in B18.4 will prevail over the Total Bid Price entered in MERX.

B19. AWARD OF CONTRACT

- B19.1 The City will give notice of the award of the Contract or will give notice that no award will be made.
- B19.2 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.
- B19.2.1 Without limiting the generality of B19.2, 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 their 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.
- B19.3 The Work of this Contract is contingent upon Council approval of sufficient funding in the 2026 Capital Budget. If the Capital Budget approved by Council does not include sufficient funding for the Work, the City will have no obligation to award a Contract.
- B19.4 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 B18.
- B19.4.1 Following the award of contract, a Bidder will be provided with information related to the evaluation of their Bid upon written request to the Contract Administrator.

PART C - GENERAL CONDITIONS

C0. GENERAL CONDITIONS

- C0.1 The *General Conditions for Construction* (Revision 2025-11-01) 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, Purchasing Division website at 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. SCOPE OF WORK

D2.1 The Work to be done under the Contract shall consist of:

- (a) Asphalt Roadway Construction and Rehabilitation:
 - (i) Kilcona Park Roadway from Norris Road to Harbourview Access Road.
- (b) Asphalt Roadway Reconstruction:
 - (i) Harbourview Park Access Road from Springfield Road to Northern Terminus.

D2.2 The major components of the Work are as follows:

- (a) Asphalt Roadway Construction (Kilcona Park Roadway):
 - (i) Removal of organic material including trees, bushes, grass, and topsoil;
 - (ii) Removal of bollards and gates;
 - (iii) Excavation of roadway, multi-use path and ditches;
 - (iv) Installation of temporary silt fencing;
 - (v) Removal of existing and installation of new culverts;
 - (vi) Installation of culvert safety grates;
 - (vii) Installation of a new one thousand (1,000) millimetre (mm) diameter culvert;
 - (viii) Abandonment of an existing one thousand (1,000) mm diameter culvert;
 - (ix) Compaction of existing subgrade;
 - (x) Placement of suitable site fill material;
 - (xi) Installation of geotextile;
 - (xii) Placement of sub-base and base course materials;
 - (xiii) Installation of French drains;
 - (xiv) Installation of granular pathways and parking lots;
 - (xv) Supply and installation of precast concrete parking curbs;
 - (xvi) Installation of random stone riprap;
 - (xvii) Removal of existing and temporary fencing;
 - (xviii) Removal of existing weigh scale;
 - (xix) Removal of existing asphalt approaches and accesses;
 - (xx) Planning of existing asphalt pavement;
 - (xxi) Installation of bollards and waste receptacles;
 - (xxii) Installation of 1.8 metre (m) chain link fencing and locking gates;
 - (xxiii) Installation of mulch pathways with owner supplied mulch;
 - (xxiv) Installation of new and relocation of existing boulders;
 - (xxv) Installation of trees;
 - (xxvi) Installation of topsoil;
 - (xxvii) Installation of sod;
 - (xxviii) Placement of Type MS2 asphalt pavement utilizing grade control equipment (average thickness of sixty [60] mm);

- (xxix) Placement of Type MS1 asphalt pavement utilizing grade control equipment (average thickness of fifty [50] mm);
- (b) Asphalt Roadway Reconstruction (Harbourview Access Road)
 - (i) Installation of geotextile and EnviroGrid;
 - (ii) Construction of temporary access road;
 - (iii) Excavation;
 - (iv) Compaction of existing subgrade;
 - (v) Placement of suitable site fill material;
 - (vi) Removal of existing catch basin;
 - (vii) Installation of new catch basin;
 - (viii) Installation of subdrains;
 - (ix) Installation of geotextile;
 - (x) Placement of sub-base and base course materials;
 - (xi) Installation of French drains;
 - (xii) Supply and installation of precast concrete parking curbs;
 - (xiii) Installation of random stone riprap;
 - (xiv) Installation of topsoil and sod;
 - (xv) Placement of Type MS2 asphalt pavement utilizing grade control equipment (average thickness of sixty [60] mm);
 - (xvi) Placement of Type MS1 asphalt pavement utilizing grade control equipment (average thickness of fifty [50] mm);

D3. CONTRACT ADMINISTRATOR

- D3.1 The Contract Administrator is Dillon Consulting Limited, represented by:
David Wiebe, P.Eng., PTOE, LEED AP
Project Manager
Telephone No.: (204) 453-2301
Email Address: dwiebe@dillon.ca
- D3.2 At the pre-construction meeting, David Wiebe, P.Eng., PTOE, LEED AP will identify additional personnel representing the Contract Administrator and their respective roles and responsibilities for the Work.

D4. CONTRACTOR'S SUPERVISOR

- D4.1 At the pre-construction meeting, the Contractor shall identify their designated supervisor and any additional personnel representing the Contractor and their respective roles and responsibilities for the Work.
- D4.2 At least two (2) Business Days prior to the commencement of any Work on the Site, the Contractor shall provide the Contract Administrator with a phone number where the supervisor identified in D4.1 or an alternate can be contacted twenty-four (24) hours a day to respond to an emergency.

D5. FURNISHING OF DOCUMENTS

- D5.1 Upon award of the Contract, the Contractor will be provided with 'issued for construction' Contract Documents electronically, including Drawings in PDF format only.

SUBMISSIONS

D6. AUTHORITY TO CARRY ON BUSINESS

- D6.1 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.

D7. SAFE WORK PLAN

- D7.1 The Contractor shall provide the Contract Administrator with a Safe Work Plan at least five (5) Business Days prior to the commencement of any Work on the Site.
- D7.2 The Safe Work Plan shall be prepared and submitted in the format shown in the City's template which is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Purchasing Division website at <http://www.winnipeg.ca/matmgt/safety/default.stm>
- D7.3 Notwithstanding B13.4 at any time during the term of the Contract, the City may, at their 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.

D8. INSURANCE

- D8.1 The Contractor shall provide and maintain the following insurance coverage:
- (a) Commercial general liability insurance, in the amount of at least five million dollars (\$5,000,000.00) inclusive, with The City of Winnipeg added as additional insured; such liability policy to also contain a cross-liability clause, contractual liability, unlicensed motor vehicle liability, non-owned automobile liability and products and completed operations cover, to remain in place at all times during the performance of the Work and throughout the warranty period;
 - (b) 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 two million dollars (\$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 supplies and/or materials intended to form part of any installation; and
 - (d) All risks property insurance for all Contractors equipment and tools to be used in the connection of the work.
- D8.2 Deductibles shall be borne by the Contractor.
- D8.3 All subcontractors performing Work on the Project shall provide the Contractor with evidence of insurance as outlined in D8.1(a) and D8.1(b) above and be registered with Workers Compensation Board of Manitoba and maintain insurance and workers compensation coverage throughout the performance of the Work, the Contractor shall provide the Contract Administrator with evidence of same prior to the commencement of any Work by the Subcontractor.
- D8.4 All policies shall be taken out with insurers duly licensed to carry on business in the Province of Manitoba.

- D8.5 The Contractor shall provide:
- (a) The certificate of insurance, in a form satisfactory to the Supervisor of Insurance, to:
The City of Winnipeg
Risk Management
Insurance Section
185 King Street, 3rd Floor
Winnipeg, Manitoba
R3B 1J1
 - (b) The Contract Administrator with a copy of the certificate of insurance at least two (2) Business Days of notification of the award of the Contract prior to the commencement of any Work on the Site.
- D8.6 The Contractor shall not cancel, materially alter, or cause the policy to lapse without providing at least thirty (30) Calendar Days prior written notice to the Contract Administrator.

D9. CONTRACT SECURITY

- D9.1 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 amount of fifty percent (50%) of the Contract Price; and
 - (b) labour and material payment bond of a company registered to conduct the business of a surety in Manitoba, in an amount equal to fifty percent (50%) of the Contract Price.
- D9.1.1 Bonds are available at:
- (a) Performance Bond <https://www.winnipeg.ca/media/4928/>
 - (i) Performance Bond – Schedule A – Form of Notice
<https://www.winnipeg.ca/media/4831/>
 - (ii) Performance Bond – Schedule B – Surety's Acknowledgement
<https://www.winnipeg.ca/media/4832/>
 - (iii) Performance Bond – Schedule C – Surety's Position
<https://www.winnipeg.ca/media/4833/>
 - (b) Labour & Material Payment Bond <https://www.winnipeg.ca/media/4930/>
 - (i) L&M Bond – Schedule A – Notice of Claim
<https://www.winnipeg.ca/media/4834/>
 - (ii) L&M Bond – Schedule B – Acknowledgement of a Notice
<https://www.winnipeg.ca/media/4835/>
 - (iii) L&M Bond – Schedule C – Surety's Position
<https://www.winnipeg.ca/media/4836/>
- D9.1.2 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 D9.1(b).
- D9.1.3 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 their discretion, exercised reasonably, allows.
- D9.1.4 Digital bonds passing the verification process will be treated as original and authentic.
- D9.2 The Contractor shall provide:
 - (a) the required Contract Security to:
The City of Winnipeg
Legal Services Department
185 King Street, 3rd Floor
Winnipeg, Manitoba
R3B 1J1
 - (b) The Contract Administrator with copies of the required Contract Security.

within seven (7) Calendar Days of notification of the award of the Contract and prior to the commencement of any Work on the Site.
- D9.3 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 D9.1(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.

D10. SUBCONTRACTOR LIST

- D10.1 The Contractor shall provide the Contract Administrator with a complete list of the Subcontractors whom the Contractor proposes to engage (Form J: Subcontractor List) at or prior to a pre-construction meeting, or at least two (2) Business Days prior to the commencement of any Work on the Site.

D11. EQUIPMENT LIST

- D11.1 The Contractor shall provide the Contract Administrator with a complete list of the equipment which the Contractor proposes to utilize (Form K: Equipment 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.

D12. DETAILED WORK SCHEDULE

- D12.1 The Contractor shall provide the Contract Administrator with a detailed work schedule at least two (2) Business Days prior to the commencement of any Work on the Site.
- D12.2 The detailed work schedule shall consist of the following:
 - (a) A critical path method (C.P.M.) schedule for the Work;
 - (b) A Gantt chart for the Work based on the C.P.M. schedule; and
 - (c) All acceptable to the Contract Administrator.

- D12.3 Further to D12.2(a), the C.P.M. schedule shall clearly identify the start and completion dates of all major activities/tasks making up the Work as identified in D2.
- D12.4 Further to D12.2(b), 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.

D13. REQUIREMENTS FOR SITE ACCESSIBILITY PLAN

- D13.1 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.
- D13.2 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 a safe environment for users of the Kilcona Dog Park;
 - (b) How the Contractor will maintain access to the Kilcona Dog Park;
 - (c) How the Contractor will maintain access to pedestrian facilities;
 - (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; and
 - (f) Any required detour signage at adjacent crossings to facilitate sidewalk or active transportation pathway closures.
- D13.3 The Accessibility Plan may also include figures, sketches, or drawings to demonstrate the proposed plan.
- D13.4 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:
 - (i) Including signage noting that Off-Leash Dog Park areas are On-Leash Dog Park during working hours (specify hours) and which days of the week this applies (specify working days).
 - (b) Temporary Ramping; and
 - (c) Detour Signage.
- D13.5 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.
- D13.6 Any changes to the Accessibility Plan must be approved by the Contract Administrator.
- D13.7 Upon request from the Contract Administrator, the Contractor shall provide records demonstrating that the site has been maintained.
- D13.8 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; and
- (c) Third and subsequent Offences – A pay reduction will be issued in the amount of two hundred and fifty dollars (\$250.00) per instance and per day.

SCHEDULE OF WORK

D14. COMMENCEMENT

- D14.1 The Contractor shall not commence any Work until they are in receipt of an award letter from the Award Authority authorizing the commencement of the Work.
- D14.2 The Contractor shall not commence any Work on the Site until:
- (a) the Contract Administrator has confirmed receipt and approval of:
 - (i) Evidence of authority to carry on business specified in D6;
 - (ii) Evidence of the workers compensation coverage specified in C6.17;
 - (iii) The twenty-four (24) hour emergency response phone number specified in D4.2.
 - (iv) The Safe Work Plan specified in D7;
 - (v) Evidence of the insurance specified in D8;
 - (vi) Evidence of the contract security specified in D8.1;
 - (vii) The subcontractor list specified in D10;
 - (viii) The equipment list specified in D11;
 - (ix) The detailed work schedule specified in D12;
 - (x) The Requirements for Site Accessibility Plan specified in D13; and
 - (xi) The direct deposit application form specified in C12.20.
 - (b) the Contractor has attended a pre-construction meeting with the Contract Administrator, or the Contract Administrator has waived the requirement for a pre-construction meeting.
- D14.3 The Contractor shall commence the Work on the Site within seven (7) Working Days of receipt of the award letter.
- D14.4 The Contractor shall not commence work on Harbourview Zone 1 or Zone 2 until the Harbourview Recreation Complex Demolition is completed.
- D14.5 The City intends to award this Contract by August 14, 2026.
- D14.5.1 If the actual date of award is later than the intended date, the dates specified for Critical Stages, Substantial Performance, and Total Performance will be adjusted by the difference between the aforementioned intended and actual dates.

D15. WORKING DAYS

- D15.1 Further to C1.1(xx);
- D15.1.1 The Contract Administrator will determine daily if a Working Day has elapsed and will record their 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 they agree with the Contract Administrator's determination of the Working Days assessed for the report period.
- D15.1.2 Work done to restore the Site to a condition suitable for Work, shall not be considered "work" as defined in the definition of a Working Day.

- D15.1.3 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.

D16. RESTRICTED WORK HOURS

- D16.1 Further to 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 two thousand (2,000) hours and 0700 hours, or on Saturdays, Sundays, Statutory Holidays and or Civic Holidays.
- D16.2 Further to D16.1, if a Contractor receives permission from the Contract Administrator for Work to be performed on Saturdays and Sundays, these days will be considered Working Days if the Contract Administrator deems that they are also required on Site.

D17. WORK BY OTHERS

- D17.1 Further to C6.26, 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 Contractor's 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.
- D17.2 Work by others on or near the Site will include but not necessarily be limited to:
- (a) City of Winnipeg Parks – Maintenance activities within Kilcona Park and Harbourview Park.
 - (b) City of Winnipeg Water and Waste – Accessing wells and piezometers for landfill monitoring and leachate collection:
 - (i) If City personnel require access for monitoring or leachate collection where access is restricted due to open excavations or other activities by the Contractor, the Contractor must establish temporary access within two weeks of receiving notice from the Contract Administrator.
 - (c) City of Winnipeg Geomatics Branch – Various works on survey monuments.
 - (d) Kilcona Dog Park Improvement – Phase One (Tender 355-2026):
 - (i) Construction of fencing to establish limits of dog park; and
 - (ii) Construction of landscaping features within the fenced dog park area.
 - (e) Selected Building Demolition - Harbourview Recreation Complex - 1867 Springfield (Tender 223-2026):
 - (i) Provide access for demolition contractor for all Harbourview buildings at the north end of Zone 2 Loop Road; and
 - (ii) Demolition is anticipated to be completed by August 31, 2026.
 - (f) Manitoba Hydro – Replacing existing transformer at weigh scale building and trenching new conduit between Springfield Road and transformer.
- D17.3 Further to D17.1 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 D17.2 or additional parties, in their construction schedule as per D12 and accommodate the necessary area on Site required for the Work by Others to complete the Work.

D18. SEQUENCE OF WORK

D18.1 Further to C6.1, the sequence of work shall comply with the following:

- D18.1.1 The Contractor must install the Temporary Access Road between Springfield Road and the southeast parking lot before closing the Zone 1 Entrance Road or the Zone 3 E-W Parking Road in Harbourview to traffic. The Contractor shall reopen both the Zone 1 Entrance Road and the Zone 3 E-W Parking Road in Harbourview to traffic before removing the Temporary Access Road.
- D18.1.2 The Contractor shall only place Planting Medium in naturalized seeding areas between May 1 and June 1.

D19. CRITICAL STAGES

D19.1 The Contractor shall achieve critical stages of the Work in accordance with the following requirements:

- (a) Kilcona Park Roadway – In 2026, in any areas/sections where roadway construction has commenced, the roadway and embankments must be completed to the point of full depth sub-base placement and compaction, embankment/ditch shaping and compaction, and culvert installation by October 30, 2026. (This is to minimize site drying time and erosion in Spring 2027).
- (b) Harbourview Roadway – In 2026, in any zones where roadway construction has commenced, the zone must be completed to the point of being substantially complete by October 30, 2026. (This is to avoid having incomplete/unpaved zones over the winter of 2026/27).

D19.2 When the Contractor considers the Work associated with each critical stage to be completed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Completion. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be re-inspected.

D19.3 The date on which each critical stage has been accepted by the Contract Administrator as being completed to the requirements of the Contract is the date on which completion of each critical stage has been achieved.

D20. SUBSTANTIAL PERFORMANCE

D20.1 The Contractor shall achieve Substantial Performance within one hundred and fifteen (115) consecutive Working Days of the commencement of the Work as specified in D14.

D20.2 When the Contractor considers the Work to be substantially performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Substantial Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be re-inspected.

D20.3 The date on which the Work has been certified by the Contract Administrator as being substantially performed to the requirements of the Contract through the issue of a certificate of Substantial Performance is the date on which Substantial Performance has been achieved.

D21. TOTAL PERFORMANCE

D21.1 The Contractor shall achieve Total Performance within one hundred and thirty-five (135) consecutive Working Days of the commencement of the Work as specified in D14.

D21.2 When the Contractor or the Contract Administrator considers the Work to be totally performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Total Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be re-inspected.

D21.3 The date on which the Work has been certified by the Contract Administrator as being totally performed to the requirements of the Contract through the issue of a certificate of Total Performance is the date on which Total Performance has been achieved.

D22. LIQUIDATED DAMAGES

D22.1 If the Contractor fails to achieve Critical Stages, Substantial Performance or Total Performance in accordance with the Contract by the days fixed herein for same, the Contractor shall pay the City the following amounts per Working Day for each and every Working Day following the days fixed herein for same during which such failure continues:

- (a) Kilcona Park Roadway sub-base, ditching and culverts completed in 2026 – Five Hundred dollars (\$500.00);
- (b) Harbourview Roadways asphalt completed in any zones commenced in 2026 – Five Hundred dollars (\$500.00);
- (c) Substantial Performance – Three Thousand dollars (\$3,000.00); and
- (d) Total Performance – One Thousand Five Hundred dollars (\$1,500.00).

D22.2 The amounts specified for liquidated damages in D22.1 are based on a genuine pre-estimate of the City's losses in the event that the Contractor does not achieve critical stages, Substantial Performance or Total Performance by the days fixed herein for same.

D22.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

D23. SCHEDULED MAINTENANCE

D23.1 The Contractor shall perform the following scheduled maintenance in the manner and within the time periods required by the Specifications:

- (a) Reflective crack maintenance (during the two [2] year warranty period) as specified in CW 3250-R7;
- (b) Sodding (maintenance period) as specified in CW 3510-R9;

D23.2 Determination of Substantial Performance and Total Performance shall be exclusive of scheduled maintenance identified herein. All scheduled maintenance shall be completed prior to the expiration of the warranty period. Where the scheduled maintenance cannot be completed during the warranty period, the warranty period shall be extended for such period of time as it takes the Contractor to complete the scheduled maintenance.

CONTROL OF WORK

D24. JOB MEETINGS

D24.1 Regular weekly job meetings will be held at the Site. These meetings shall be attended by a minimum of one (1) representative of the Contract Administrator, one (1) representative of the City and one (1) representative of the Contractor. Each representative shall be a responsible person capable of expressing the position of the Contract Administrator, the City and the Contractor respectively on any matter discussed at the meeting including the Work schedule and the need to make any revisions to the Work schedule. The progress of the Work will be reviewed at each of these meetings.

D24.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever they deem it necessary.

D25. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)

D25.1 Further to C6.27, 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).

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

D26.1 Further to B13.4, 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 their sole discretion and acting reasonably, require updated proof of compliance, as set out in B13.4.

PAYMENT

D27. FUEL PRICE ADJUSTMENT

D27.1 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; and
 - (iv) Q = monetary value of Work applied in the calculation.

D27.1.1 Eligible Work will be determined in accordance with D27.5.

D27.1.2 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 fifteen percent (15%) regular unleaded gasoline at self-service filling stations and eight-five percent (85%) diesel fuel at self-service filling stations.

D27.1.3 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.

D27.1.4 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.

D27.2 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.

D27.3 The fuel escalation or de-escalation adjustment will not be applied if the CFI is within $\pm$ fifteen percent (15%) of the BFI.

D27.4 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.

D27.5 The Fuel Factor (FF) rates will be set as follows:

- (a) The Fuel Factor rate shall be set at two point seven percent (2.7%) of the monetary value of all Work based on unit prices except for the portions of the Contract identified below;

WARRANTY

D28. WARRANTY

D28.1 Notwithstanding C13.2, the warranty period shall begin on the date of Substantial Performance and shall expire two (2) years thereafter unless extended pursuant to C13.2.1 or C13.2.2, in which case it shall expire when provided for thereunder.

D28.2 Notwithstanding C13.2 or D28.1, the Contract Administrator may permit the warranty period for a portion or portions of the Work to begin prior to the date of Substantial Performance if:

- (a) A portion of the Work cannot be completed because of unseasonable weather or other conditions reasonably beyond the control of the Contractor but that portion does not prevent the balance of the Work from being put to its intended use.

D28.2.1 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.

INDEMNITY

D29. INDEMNITY

D29.1 Indemnity shall be as stated in C17.

FORM J: SUBCONTRACTOR LIST
(See D10)

KILCONA PARK ROADWAY CONSTRUCTION AND HARBOURVIEW ROADWAY RECONSTRUCTION

<u>Portion of the Work</u>	<u>Name</u>	<u>Address</u>
SURFACE WORKS:		
<u>Supply of Materials:</u>		
Asphalt		
Base Course and Sub-Base		
Fences and Gates		
Polyposts		
Precast Concrete Parking Curbs		
Separation/Filtration Geotextile Fabric		
Silt Fencing		
Sod		
Steel Bollards		
Stone Riprap		
Topsoil		
Wicking Geotextile Fabric		
Wooden Bollards		
<u>Installation/Placement:</u>		
Asphalt Planing		
Asphalt		
Base Course and Sub-Base		
Bollards		
Fences and Gates		
Polyposts		
Scale Demolition		
Separation/Filtration Geotextile Fabric		
Sod		
Stone Riprap		
Topsoil		
Tree Removals		

(See D10)

KILCONA PARK ROADWAY CONSTRUCTION AND HARBOURVIEW ROADWAY RECONSTRUCTION

[illegible]

FORM K: EQUIPMENT
(See D11)

KILCONA PARK ROADWAY CONSTRUCTION AND HARBOURVIEW ROADWAY RECONSTRUCTION

1. Category/type:	
Make/Model/Year: _____	Serial No.: _____
Registered owner: _____	
Make/Model/Year: _____	Serial No.: _____
Registered owner: _____	
Make/Model/Year: _____	Serial No.: _____
Registered owner: _____	
2. Category/type:	
Make/Model/Year: _____	Serial No.: _____
Registered owner: _____	
Make/Model/Year: _____	Serial No.: _____
Registered owner: _____	
Make/Model/Year: _____	Serial No.: _____
Registered owner: _____	
3. Category/type:	
Make/Model/Year: _____	Serial No.: _____
Registered owner: _____	
Make/Model/Year: _____	Serial No.: _____
Registered owner: _____	
Make/Model/Year: _____	Serial No.: _____
Registered owner: _____	

FORM K: EQUIPMENT
(See D11)

KILCONA PARK ROADWAY CONSTRUCTION AND HARBOURVIEW ROADWAY RECONSTRUCTION

4. Category/type:	
Make/Model/Year: _____	Serial No.: _____
Registered owner: _____	
Make/Model/Year: _____	Serial No.: _____
Registered owner: _____	
Make/Model/Year: _____	Serial No.: _____
Registered owner: _____	
5. Category/type:	
Make/Model/Year: _____	Serial No.: _____
Registered owner: _____	
Make/Model/Year: _____	Serial No.: _____
Registered owner: _____	
Make/Model/Year: _____	Serial No.: _____
Registered owner: _____	
6. Category/type:	
Make/Model/Year: _____	Serial No.: _____
Registered owner: _____	
Make/Model/Year: _____	Serial No.: _____
Registered owner: _____	
Make/Model/Year: _____	Serial No.: _____
Registered owner: _____	

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* and Standard Construction Details in their 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, Purchasing Division website at <http://www.winnipeg.ca/matmgt/Spec/Default.stm>
- E1.2.2 The City of Winnipeg Standard Construction Details is available on the Park development page of the City of Winnipeg Planning & Design website at <https://www.winnipeg.ca/building-development/city-planning-design/park-development/standard-construction-details>
- E1.2.3 The version in effect three (3) Business Days before the Submission Deadline shall apply.
- E1.2.4 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 B7. 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 B7.
- 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	A1

KILCONA PARK

01	KEY MAP	A1
02	CONTROL LINE GEOMETRY (1 OF 4)	A1
03	CONTROL LINE GEOMETRY (2 OF 4)	A1
04	CONTROL LINE GEOMETRY (3 OF 4)	A1
05	CONTROL LINE GEOMETRY (4 OF 4)	A1
06	ROAD CONSTRUCTION (STA. 1+100 TO 1+200) PLAN	A1
07	ROAD CONSTRUCTION (STA. 1+100 TO 1+200) PROFILE	A1
08	ROAD CONSTRUCTION (STA. 1+200 TO 1+300)	A1
09	ROAD CONSTRUCTION (STA. 1+300 TO 1+410)	A1
10	ROAD CONSTRUCTION (STA. 1+410 TO 1+525)	A1
11	ROAD CONSTRUCTION (STA. 1+525 TO 1+640)	A1
12	ROAD CONSTRUCTION (STA. 1+640 TO 1+755)	A1
13	ROAD CONSTRUCTION (STA. 1+775 TO 1+860)	A1
14	ROAD CONSTRUCTION (STA. 1+860 TO 1+970)	A1
15	ROAD CONSTRUCTION (STA. 1+970 TO 2+035)	A1
16	ROAD CONSTRUCTION (STA. 2+035 TO 2+140)	A1
17	ROAD CONSTRUCTION (STA. 2+140 TO 2+215)	A1
18	ROAD CONSTRUCTION (STA. 2+215 TO 2+305)	A1

<u>Drawing No.</u>	<u>Drawing Name/Title</u>	<u>Drawing (Original) Sheet Size</u>
19	ROAD CONSTRUCTION (STA. 2+305 TO 2+440)	A1
20	ROAD CONSTRUCTION (STA. 2+440 TO 2+560)	A1
21	ROAD CONSTRUCTION (STA. 2+560 TO 2+690)	A1
22	ROAD CONSTRUCTION (STA. 2+690 TO 2+775)	A1
23	ROAD CONSTRUCTION (STA. 2+775 TO 2+855)	A1
24	ROAD CONSTRUCTION (STA. 2+855 TO 2+970)	A1
25	ROAD CONSTRUCTION (STA. 2+970 TO 3+105)	A1
26	ROAD CONSTRUCTION (STA. 3+105 TO 3+175)	A1
27	CULVERTS AND DETAILS	A1
28	STRUCTURAL DETAILS	A1
29	WEIGH SCALE REMOVALS	A1
30	MATERIALS AND PLANTING KEY PLAN	A1
31	MATERIALS AND PLANTING PLAN - SEGMENT ONE	A1
32	MATERIALS AND PLANTING PLAN - SEGMENT TWO	A1
33	MATERIALS AND PLANTING PLAN - SEGMENT THREE	A1
34	MATERIALS AND PLANTING PLAN - SEGMENT FOUR	A1
35	MATERIALS AND PLANTING PLAN - SEGMENT FIVE	A1
36	MATERIALS AND PLANTING PLAN - SEGMENT SIX	A1
37	MATERIALS AND PLANTING PLAN - SEGMENT SEVEN	A1
38	MATERIALS AND PLANTING PLAN - SEGMENT EIGHT	A1
39	MATERIALS AND PLANTING PLAN - SEGMENT NINE	A1
40	MATERIALS AND PLANTING PLAN - SEGMENT TEN	A1
41	MATERIALS AND PLANTING PLAN - SEGMENT ELEVEN	A1
42	MATERIALS AND PLANTING PLAN - SEGMENT TWELVE	A1

HARBOURVIEW

43	CONTROL LINE GEOMETRY	A1
44	ENTRANCE AND LOOP ROAD RECONSTRUCTION (1 OF 2)	A1
45	ENTRANCE AND LOOP ROAD RECONSTRUCTION (2 OF 2)	A1
46	EAST-WEST PARKING ROAD RECONSTRUCTION (1 OF 2)	A1
47	EAST-WEST PARKING ROAD RECONSTRUCTION (2 OF 2)	A1
48	NORTH PARKING ROAD RECONSTRUCTION	A1

E2. HAZARDOUS MATERIALS

- E2.1 If leachate, methane or other hazardous materials are encountered during the Work of the Contract, the Contractor shall stop all work and notify the Contract Administrator immediately. Removal of hazardous materials shall be dealt with by the City and the Contractor shall await further instruction by the Contract Administrator.
- E2.2 When working at the landfill there is a potential to be exposed to toxic gases; primarily the gases of concern are methane and hydrogen sulfide. In some cases, the Contractor may be exposed to Landfill Gases. The Contractor shall review and follow all recommendations in the Guidelines for Construction on Landfill Sites in Appendix 'D'.

E3. EXISTING SERVICES AND UTILITIES

- E3.1 No responsibility will be assumed by the City for correctness or completeness of the Drawings, when provided, with respect to the existing utilities, pipes or other objects either underground or on the surface; the City shall not be liable for the incorrectness and inadequacy thereof. It shall be the responsibility of the Contractor to determine the location of all such utilities, pipes and other objects and to make good any damage done to them.
- E3.2 Prior to the commencement of construction, the Contractor shall inspect the Site and examine all available records and contact all relevant utilities as necessary to determine the location of all existing surface and underground works. Locations of underground structures if shown are based on the best information available. No guarantee is given that all existing locations are exact.
- E3.3 The Contractor shall be responsible for and take all necessary precautions to preserve and protect all public utilities (i.e. telephone lines and cables, hydro lines and cables, gas lines, sewer mains and services, watermains and services, etc.) existing drains and surface drains or parts thereof which may be affected by their operations.
- E3.4 The Contractor shall make all requests directly to each utility for the location of their existing works prior to the start of construction in the area.
- E3.5 The Contractor shall indemnify and save harmless the City and the Contract Administrator or their Sub-Consultants against damages for consequential loss and against any claim made against the City or the Contract Administrator of any such main, line, conduit or other such structure or utility for any loss or damage in respect of third party claims or which may be suffered by any such City because of damage to any such main, line, conduit, or other such structure or utility, in any way caused by the operations of the Contractor in the performance of this Contract.

E4. ACCESS TO SITE

- E4.1 Access to the Site as required by the Contractor shall be provided and maintained by the Contractor at their own expense and as approved by the Contract Administrator.
- E4.2 The Contractor's operations shall be limited to the minimum area necessary for undertaking the Work and they shall be responsible for all damage resulting from their Work on private property.
- E4.3 The Contractor shall co-operate with the City so as to cause the least inconvenience throughout the area at all times. The Site contains an off-leash dog park with associated amenities that will be in operation during the construction of this project. The Contractor shall minimize impacts on these operations. Signage requesting that the dog park changes to an on-leash dog park during the times of construction is required for the safety and security of both the users, their dogs, and the contractors. Signage to be provided at the parking lots and park entrances at the Contractor's expense and should outline the times and days which the dog park should become on-leash.
- E4.4 The Contractor's operations shall be limited to the minimum area necessary for undertaking the work and they shall be responsible for all damage resulting from their work on private property.
- E4.5 Confine apparatus, the storage of products, and the operations of workers to limits indicated by laws, ordinances, permits, and by directions of the Contract Administration.
- E4.6 Do not unreasonably encumber Site with materials or equipment.
- E4.7 Do not load or permit to be loaded any part of the work with a weight, load, or force that will endanger its safety.
- E4.8 Obtain, pay for, and maintain on site sanitary facilities from startup to Total Performance.
- E4.9 Maintain the project Site during Construction.
- E4.10 Be responsible for damage due to weather, vandalism, etc.

- E4.11 Complete works in a manner that shall result in good surface drainage during periods of precipitation.
- E4.12 Assume full responsibility for the protection and safekeeping of products under the Contract, stored on the Site.

E5. PERMITS, NOTICES, LICENSES, CERTIFICATES, LAWS AND RULES

- E5.1 Further to C6.13, the Contractor shall give all necessary notices, obtain all necessary permits and pay all fees in order that the Work may be carried out. The Contractor shall submit all plans required by any inspection authority and obtain approval of same before proceeding with the Work, and pay any cost attached to the inspection of such plans.
- E5.2 The Contractor shall comply with all laws, ordinances, rules and regulations that would relate to the Work.
- E5.3 All notices, consents, approvals, statements, authorizations, documents or other communications to the City shall be submitted to the Contract Administrator.
- E5.4 All Work shall be performed in compliance with the *Manitoba Workplace Health and Safety Act*.
- E5.5 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety Fall Protection guidelines.
- E5.6 The Contractor and Sub-contractors must be fully aware of all Work involving hazardous materials. All Work must be performed in compliance with the Manitoba Department of Labour Workplace Health and Safety Guidelines and all other applicable codes. The Contractor is responsible for the immediate notification to the Contract Administrator of their encountering of suspected hazardous material during their course of Work.

E6. PEDESTRIAN AND DOG SAFETY

- E6.1 During the project, the Contractor shall ensure that proper and adequate signage and barricades are in place during construction to direct any pedestrians within the construction zone either around the construction area or to avoid the construction areas completely. The Contractor may also be required to install snow fencing to protect and keep pedestrians and dogs safely away from the construction area or to ensure a secured area. The Contractor shall be responsible for maintaining the signage, barricades, and snow fence in a proper working condition, to the satisfaction of the Contract Administrator. No measurement for payment shall be made for this work.
- E6.2 The fencing portion of the Kilcona Dog Park Improvements is anticipated to be completed in 2026, which will assist in preventing Kilcona Dog Park users from entering the Site.

E7. SHOP DRAWINGS

- E7.1 Further to CW 1110, the Contractor shall provide within 30 Calendar Days of award, at minimum the following Shop Drawings:
 - (a) Chain link fence plans and layout, including vehicle access gates;
 - (b) Wood Bollards per City of Winnipeg Standard Detail SCD-105B Post Bollard; and
 - (c) Removable Bollards per City of Winnipeg Standard Detail SCD-105C Removable Steel Bollard.
- E7.2 Shop Drawings will be reviewed by the Contract Administrator and the City Project Manager for general conformance to the City's requirements and the design intent only. All detailed Drawings shall be drawn to a suitable scale and include scale, north arrow, dimensions, and appropriate elevations and cross-sections.

- E7.3 The level of detail and scope of information provided on the shop drawings shall be sufficient to satisfy construction needs and permitting requirements. Indicate materials, methods of construction, and attachment or anchorage, erection diagrams, connections, explanatory notes, and other information necessary for completion of Work. Where articles or equipment attach or connect to other articles or equipment, indicate that such items have been co-ordinated, regardless of Section under which adjacent items will be supplied and installed. Indicate cross references to design drawings and specifications.
- E7.4 Adjustments made on shop drawings by the Contract Administrator are not intended to change Contract Price. If adjustments affect the value of Work, state such in writing to the Contract Administrator prior to proceeding with Work.
- E7.5 There shall be no separate measurement of payment for shop drawings or record drawings.

E8. SAMPLES

- E8.1 Samples called for in the Specification or requested by the Contract Administrator shall be submitted within fifteen (15) Calendar Days of request.
- (a) Identify samples with name of project, date, name of Contractor, name of supplier/ manufacturer and use of material represented by sample.
 - (b) Do not proceed with delivery of materials until samples are reviewed by the Contract Administrator. No deviation is permitted after approval of sample.
 - (c) Approval of samples does not imply acceptance of finished Work.
 - (d) Where required, submit a range of samples, as may be reasonable.

E9. MOBILIZATION AND DEMOBILIZATION PAYMENT

DESCRIPTION

- E9.1 This Specification shall cover all operations relating to the mobilization and demobilization of the Contractor to the project location(s).
- E9.2 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.
- E9.3 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

- E9.4 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); and/or
 - (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; and/or
 - (iv) General cleanup and housekeeping needed to restore a neat and orderly project site.

E9.5 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

E9.6 The lump-sum price for the Mobilization and Demobilization bid item shall not exceed five percent (5%) of the total bid price for the Contract.

E9.6.1 Further to B10, B18, C12 and E9.6, should the lump sum price exceed five percent (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.

E9.7 Payment for Mobilization:

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

E9.8 Payment for Demobilization:

- (a) The remaining forty percent (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; and
 - (ii) Distribution of the Declaration of Total Performance.

E9.9 Pay Reduction for Accessibility Plan

- (a) The Demobilization payment will be reduced by the number of pay adjustments incurred in accordance with D13 and as determined by the Contract Administrator.

E9.10 Mobilization and Demobilization will be paid only once (to a maximum of one hundred percent [100%]), regardless of the number of times the Contractor mobilizes to the site and/or sites.

E10. GEOTECHNICAL REPORT

E10.1 Further to C3.1, the geotechnical report is provided to aid the Contractor's evaluation of the pavement structure and/or existing soil conditions. The geotechnical report is contained in Appendix 'A'.

E11. OFFICE FACILITIES

E11.1 The Contractor shall supply office facilities meeting the following requirements:

- (a) The field office shall be for the exclusive use of the Contract Administrator.
- (b) The building shall be conveniently located behind the Springfield Maintenance Yard or as directed by the Contract Administrator.
- (c) The building shall have a minimum floor area of twenty square metres (20 m²), a height of two point four metres (2.4 m) with two (2) windows for cross ventilation and a door entrance with a suitable lock.

- (d) The building shall be suitable for all weather use. It shall be equipped with an electric heater and air conditioner so that the room temperature can be maintained between either sixteen to eighteen degrees Celsius (16 to 18°C) or twenty-four to twenty-five degrees Celsius (24 to 25°C). The Contractor shall provide a power source capable of running the electric heater, air conditioner, and any electrical fixtures inside the field office.
 - (e) The building shall be adequately lighted with fluorescent fixtures and have a minimum of three (3) wall outlets.
 - (f) The building shall be furnished with one (1) desk, a table three metres (3 m) by one point two metres (1.2 m), one (1) four- (4)drawer legal size filing cabinet and a minimum of twelve (12) chairs.
 - (g) A portable toilet shall be located near the field office building. The toilet shall have a locking door and be for the exclusive use of the Contract Administrator and other personnel from the City.
 - (h) The field office building and the portable toilet shall be cleaned on a weekly basis immediately prior to each site meeting. The Contract Administrator may request additional cleaning when they deem it necessary.
- E11.2 The Contractor shall be responsible for all installation and removal costs, all operating costs, and the general maintenance of the office facilities.
- E11.3 The office facilities will be provided from the date of the commencement of the Work to the date of Total Performance.
- E11.4 On a one time basis, where directed by the Contract Administrator, the Contractor shall relocate the office facilities to a location more convenient for the remaining Work.

E12. PROTECTION OF EXISTING TREES AND SITE INFRASTRUCTURE

- E12.1 All necessary precautions shall be exercised by the Contractor so as not to remove, disturb, or damage any existing buildings, trees, shrubs, sod, pavements, streets, roads, boulevards, poles, hydrants, water pipes, gas pipes, electrical wires, transformers, cables, conduits, sewers, landfill monitoring wells, or any other existing facilities and equipment at the Site of the Work. For all damage incurred in the performance of the Work (either directly or indirectly), the Contractor shall either replace and repair such damage, whichever may be deemed necessary in the opinion of, and acceptable to City of Winnipeg Contract Administrator, and the cost of which shall be borne entirely by the Contractor. The Contractor shall also indemnify and save harmless the City from all claims made directly or indirectly against it in respect to any such damage.
- E12.2 The Contractor shall take the following precautionary steps to prevent damage from construction activities to existing park trees within the limits of the construction area:
- (a) A two point four metre (2.4 m) Tree Protection Zone shall be fenced off for all trees within the construction limits of work using plastic UV stabilized, high density polyethylene web snow fencing, international orange colour, one point two metre (1.2 m) in height, and supported by rolled steel T-bar fence posts, or approved equal material strong enough to remain erect during inclement weather. The Contractor shall not stockpile materials and soil or park vehicles and equipment within two point four metres (2.4 m) of trees.
 - (b) All trees within the construction limits of work and withing five metres (5 m) beyond the limits of construction and as identified on the Drawings, are to be strapped with twenty-five by one hundred by twenty-four hundred millimetre (25 x 100 x 2,400 mm) wood planks, or suitable protection as approved by the Contract Administrator, and are to remain protected from damage throughout the duration of Construction.
 - (c) Obtain approval from the Consultant of proposed barrier locations and materials prior to installation.

- (d) All forest protection snow fencing is to be in place prior to start of site works and shall stay in place until construction completion. Consultant to review protected forest prior to demolition work commences. Repair, replace and maintain tree protection snow fence during construction of the Work
- (e) For trees outside of forest protection areas, wood strapping and snow fencing is to be in place prior to start of site works and shall stay in place until construction completion. Consultant to review protected trees prior to demolition work commences. Repair, replace, and maintain tree protection wood strapping and snow fence during construction of the Work.
- (f) For trees greater than one hundred millimetre (100 mm) caliper, attach wood strapping material having a minimum thickness of twenty-five millimetre (25 mm) and minimum length of two thousand four hundred and forty millimetres (2,440 mm) around tree trunks in a manner that will not harm the trees. Do not use nails or other fasteners that penetrate into trees. The width of strapping should suit the size of the tree being protected. Length of strapping may be reduced to suit tree being protected as approved by the Consultant.
- (g) For trees less than one hundred millimetre (100 mm) caliper, install snow fencing around the tree to a two metre (2.0 m) radius complete with installation hardware. The two metre (2.0 m) radius of the snow fencing may be reduced to suit the tree being protected as approved by the Consultant.
- (h) 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 one and a half (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.
- (i) Operation of equipment within the drip line of the trees shall be kept to a 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 drip lines of trees. The drip line 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.
- (j) Do not place in excess of six inches (6") of fill over existing tree root zones defined by their drip lines. Do not excavate or dig under existing tree canopies in dry or excessively hot weather.
- (k) The Contractor will water and fertilize trees within limit of work zone regularly and as directed by the Contract Administrator to maintain tree health especially during extended periods of heat with no precipitation or if the tree shows signs of stress. Signs of stress will be flagged by the Contract Administrator during regular field visits.
- (l) Repair, replace and maintain tree protection materials during construction until the project completion.
- (m) Carefully remove safety fencing and strapping materials without harming the trees as soon as the construction and restoration work is complete.

E12.3 Root Protection, Cutting and Care

- (a) If roots are exposed for an extended period of time, cover exposed roots with approved temporary root cover material such as soil, mulch, or damp burlap immediately after exposure. Temporary root covers shall be kept damp as long as they are in place.
- (b) No excavation, tunnelling or trenching is permitted within the drip line of the trees or within the monument protection zone, without approval from Consultant.
- (c) Avoid cutting roots. If root cutting appears to be necessary, obtain approval from the Contract Administrator before proceeding. If required and approved, root pruning must be performed under the direction of the Forestry Branch.
- (d) If roots are encountered during excavation under drip lines and root pruning is required, work is to be done by a Certified Arborist or Canadian Certified Horticultural Technician (CCHT), to be approved by the Consultant.

- (e) Cut roots cleanly with sharp, sterilized hand tools to promote quick wound closure and regeneration.
- (f) Minimize damage by avoiding excavation during hot, dry weather.
- (g) Keep protected plants well watered before and after digging.
- (h) Cover exposed roots with approved temporary root cover materials such as soil, mulch, or damp burlap immediately after exposure. Temporary root covers shall be kept damp as long as they are in place.

E12.4 Pruning

- (a) American elm trees are not to be pruned between April 1st and August 1st and Siberian elm trees between April 1st and July 1st of any year under provisions of *The Dutch Elm Disease Act*.
- (b) Ensure no tree pruning is done inside drip line. If pruning inside drip line is required, work is to be done by a Certified Arborist or CCHT, to be approved by the Consultant.

E12.5 Acceptance

- (a) The Consultant will inspect the placement of tree protection barriers when initially installed and determine acceptance.
- (b) Tree protection measures will be reviewed regularly to ensure they remain in place during heavy construction activities on Site.
- (c) Tree protection will be taken down for finish grading and feathering and soft landscape installation adjacent to or under their canopies.

E12.6 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 their designate.

E12.7 Should any trees on site be found to be damaged beyond salvage the Contract Administrator will apply a financial tree replacement penalty equal to the replacement value of the tree in question based on the current replacement cost of the same sized tree. *Note when trees are in excess of seven point five metres (7.5 m) high and three hundred millimetres (300 mm) Ø caliper, replacement cost penalties may be as high as twenty-five thousand dollars (\$25,000.00) per tree.

E12.8 Remove wood strapping and snow fencing material without harming trees as soon as construction is completed.

E12.9 Materials

- (a) Barrier Material: plastic UV stabilized, high density polyethylene web snow fence, international orange colour, one point twenty-two metre (1.22 m) height, or approved equal.
- (b) Snow Fence Supports: rolled steel T-bar fence posts, or approved equal.
- (c) Wood Strapping: twenty-five by one hundred by twenty-four hundred millimetre (25 mm x 100 mm x 2,400 mm) wood planks.

E12.10 No separate measurement or payment will be made for the protection of trees.

E13. TRAFFIC CONTROL

E13.1 Further to 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 **supplying**, 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; and/or
 - (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.

- E13.2 Upon request from the Contract Administrator, the Contractor shall provide records demonstrating that the site has been maintained.
- E13.3 Further to E13.1(c) and E13.1(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.
- E13.4 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.
- E13.5 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.

E14. TRAFFIC MANAGEMENT

- E14.1 Further to 3.7 of CW 1130:
 - E14.1.1 The Contractor shall schedule construction activities to meet the following:
 - (a) Kilcona Park Roadway from Station 1+100 (start) to 1+140:
 - (i) Maintain one (1) lane for park access traffic during excavation and granular structure installation.
 - (b) Kilcona Park Roadway from Station 1+140 to 3+160 (end):
 - (i) Closed to all public traffic in accordance with the Manual of Temporary Traffic Control (MTTC) (Figure 30).
 - (ii) Provide access as required to City of Winnipeg personnel for maintenance activities.
 - (c) Zone 1 Harbourview Entrance Road:
 - (i) Closed to all traffic in accordance with the Manual of Temporary Traffic Control (MTTC) (Figure 30).

- (d) Zone 2 Harbourview Loop Road:
 - (i) Closed to all traffic in accordance with the Manual of Temporary Traffic Control (MTTC) (Figure 30).
- (e) Zone 3 Harbourview E-W Parking Road
 - (i) Closed to all traffic in accordance with the Manual of Temporary Traffic Control (MTTC) (Figure 30).
- (f) Zone 4 Harbourview N Parking Road:
 - (i) Closed to all traffic in accordance with the Manual of Temporary Traffic Control (MTTC) (Figure 30).

E14.1.2 Should the Contractor be unable to maintain an existing access to a residence or business, they 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 twenty-four (24) hours notification to the affected residence or business and the Contract Administrator, prior to disruption of access.

E14.1.3 Pedestrian and ambulance/emergency vehicle access must be maintained at all times.

E15. REFUSE AND RECYCLING COLLECTION

E15.1 While access to refuse and/or recycling collection vehicles is restricted, on collection day(s) the Contractor shall move all of the affected property owners refuse and/or recycling materials to a nearby common area, prior to an established time, in accordance with E15.2 to permit the normal collection vehicles to collect the materials. Immediately following recycling collection, the Contractor shall return recycling receptacles to the addresses marked on the receptacles.

E15.2 The Contractor shall relocate front-end waste and recycling bins at the Harbourview Recreational Complex and the Springfield Maintenance Yard to locations determined on site by the Contract Administrator.

E15.3 No measurement or payment will be made for the work associated with this specification.

E16. PEDESTRIAN SAFETY

E16.1 During the project, a temporary snow fence shall be installed in locations where hazards such as open excavations are adjacent to pedestrian facilities. The Contractor shall be responsible for maintaining the snow fence in a proper working condition. No measurement for payment shall be made for this work.

E17. WATER OBTAINED FROM THE CITY

E17.1 Further to 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.

E18. SURFACE RESTORATIONS

E18.1 Further to 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.

E19. ASPHALT PAVEMENT WORKS SPECIAL PROVISIONS

E19.1 Supplemental to CW 3410-R12, all Asphalt Pavement Works shall be in accordance with the special provision provided in Appendix 'B'.

E20. 2026 UPDATED STANDARD DRAWING DETAILS

DESCRIPTION

- E20.1 This Specification covers the construction of various items of work using updated Standard Drawing Details in Appendix 'C'.

GENERAL

- E20.2 Referenced Standard Construction Specifications and Standard Detail Drawings:

- (a) CW 3110 – Sub-grade, Sub-base and Base Course Construction;
- (b) CW 3120 – Installation of Sub Drains;
- (c) CW 3130 – Supply and Installation of Geotextile Fabrics;
- (d) CW 3210 – Adjustment of Pavement and Boulevard Structures;
- (e) CW 3230 – Full-Depth Patching of Existing Slabs and Joints;
- (f) CW 3235 – Renewal of Miscellaneous Concrete Slabs;
- (g) CW 3240 – Renewal of Existing Curbs;
- (h) CW 3310 – Portland Cement Concrete Pavement Works;
- (i) CW 3325 – Portland Cement Concrete Sidewalk;
- (j) CW 3330 – Installation of Interlocking Pavement Stones;
- (k) CW 3335 – Installation of Interlocking Pavement Stones on a Lean Concrete Base;
- (l) CW 3410 – Asphaltic Concrete Pavement Works;
- (m) CW 3530 – Manual Irrigation System; and
- (n) CW 3610 – Installation of Culverts.

CONSTRUCTION METHODS

- E20.3 Further to E20.2, the Contractor shall construct the various items of work as per the new Standard Detail Drawings in Appendix 'C':

E21. CONSTRUCTION OF VARIOUS CURBS FOR ASPHALT PAVEMENT

DESCRIPTION

- E21.1 This Specification covers the construction of various curb types for asphalt pavements.

GENERAL

- E21.2 Referenced Standard Construction Specifications and Standard Detail Drawings:

- (a) CW 3110 – Sub-grade, Sub-base and Base Course Construction;
- (b) CW 3310 – Portland Cement Concrete Pavement Works;
- (c) CW 3240 – Renewal of Existing Curbs; and
- (d) Standard Detail Drawings SD-200B, SD-220E, SD-220G, SD-229F, SD-245 (Appendix 'C').

CONSTRUCTION METHODS

- E21.3 Further to CW 3310, the Contractor shall construct the various curb types for asphalt pavements as per Standard Detail Drawings in Appendix 'C'.
- E21.4 Place and compact sub-base and base course material for roadway in accordance with the Standard Detail Drawings and Specification CW 3110.

- E21.5 Drill holes into the sub-base material with a drilling diameter of two millimetres (2 mm) greater than the diameter of the tie bar.
- E21.6 Supply and install reinforcing steel in accordance with the Standard Detail Drawings and Specification CW 3310.
- E21.7 Place concrete utilizing slip-form paving equipment in accordance with the Standard Detail Drawings and Specification CW 3310.
- E21.8 Provide a minimum of forty millimetres (40 mm) cover between reinforcing steel and the finished concrete surface.
- E21.9 Place and compact fifty millimetres (50 mm) sub-base material as backfill behind curb for asphalt pavement within excavated area in accordance with the Standard Detail Drawings. Place and compact suitable Site material as backfill behind curb for asphalt pavement to allow for one hundred millimetres (100 mm) of topsoil and sod where applicable. Care must be taken so as to not disturb the new curb for asphalt pavement during placing and compaction of fifty millimetres (50 mm) sub-base material and suitable Site material.

MEASUREMENT AND PAYMENT

- E21.10 Construction of barrier curb for asphalt pavement shall be measured on a length basis and paid for at the Contract Unit Price per metre of to "Construction of Various Curbs for Asphalt Pavement" items below. The length to be paid for shall be the total number of metres supplied and installed in accordance with this Specification, accepted and measured by the Contract Administrator.
- (a) Construction of Various Curbs for Asphalt Pavement:
- (i) Construction of Type 2 Barrier Curb and Reversed Gutter for Asphalt Pavement (SD-200B); and
- (ii) Construction of Type 2 Curb Ramp for Asphalt Pavement (SD-229F).
- E21.11 The supply and installation of reinforcing steel, base course for backfill, and suitable Site material is incidental to "Construction of Various Curbs for Asphalt Pavement". No measurement or payment will be made.

E22. MIX DESIGN PROPORTION

E22.1 General

- E22.1.1 Further to CW 3310-R18, this Specification covers the mix proportion for all concrete types related to, the construction of Portland Cement Concrete pavements, curbs, gutters, private approaches, bull-noses, median slabs, medians, safety medians and boulevard splash strips, sidewalks and other related concrete works.

E22.2 Referenced Standard Construction Specifications

- (a) CW 3310 – Portland Cement Concrete Pavement Works.

E22.3 Mix Design

- E22.3.1 Further to CW 3310-R18 Table CW 3310.5, the minimum cementitious contents shall be as follows:
- Type 1 – three hundred and eighty kilograms per cubic metre (380 kg/m³);
 - Type 2 – three hundred and sixty kilograms per cubic metres (360 kg/m³);
 - Type 3 - three hundred and eighty kilograms per cubic metre (380 kg/m³);
 - Type 4 - three hundred and eighty kilograms per cubic metre (380 kg/m³);
 - Type 5 - three hundred and forty kilograms per cubic metre (340 kg/m³); and
 - Type 6 - three hundred and sixty kilograms per cubic metres (360 kg/m³).

E22.4 Requirements

E22.4.1 The Mix Design Statements for all the concrete shall be submitted to the City of Winnipeg, Research and Standards Engineer for approval.

E22.5 Quality Assurance

E22.5.1 The Contract Administrator shall ensure the frequency and number of quality assurance tests in accordance with CW 3310.

E23. EXCAVATION

DESCRIPTION

E23.1 Further to CW 3010, CW3110 and CW 3170, this specification covers clearing and grubbing, common excavation - suitable Site material, fill material, boulevard grading, ditch grading, and excavation.

CONSTRUCTION METHODS

E23.2 Clearing and Grubbing

E23.2.1 Construction methods for Clearing and Grubbing shall be as per Specification CW 3010.

E23.3 Common Excavation – Suitable Site Material

E23.3.1 As per Specification CW 3170, Clause 9.2(b), Common Excavation – Suitable Site Material shall consist of any excavation (including ditch excavation and boulevard excavation) to the lines, grades, and sections shown in the Drawings which yields suitable Site material, as determined by the Contract Administrator.

E23.3.2 Suitable Site material shall be stockpiled on Site until a location has been prepared for placement. The Contractor shall not haul suitable Site material away from the site without approval from the Contract Administrator.

E23.4 Fill Material – Placing of Suitable Site Material

E23.4.1 Placing of suitable Site material shall include the hauling and placing of suitable Site material within the limits of Work.

E23.4.2 Hauling and placing of suitable Site material includes placement of stockpiled suitable Site material and/or placement of material hauled directly from common excavation - suitable Site material operations.

E23.4.3 Construction methods for placing suitable Site material shall be as per Specification CW 3170, Clauses 9.6 and 9.7.

E23.5 Grading of Boulevards

E23.5.1 Grading of Boulevards shall be done in accordance with Specification CW 3110.

E23.5.2 Further to Specification CW 3110, Clause 3.8, excavate and/or place and compact fill to a depth up to one hundred and fifty millimetres (150 mm) to meet the final grade one hundred millimetres (100 mm) below finished boulevard grade.

E23.5.3 Excavation in excess of one hundred and fifty millimetres (150 mm) shall be treated as Common Excavation.

E23.5.4 Placement of backfill material over one hundred and fifty millimetres (150 mm) in depth required to complete boulevard grading will be treated as Fill Material - Placing of Suitable Site Material.

E23.6 Grading of Ditches

- E23.6.1 Grading of Ditches shall be done in accordance with Specification CW 3110.
- E23.6.2 Further to Specification CW 3110, Clause 3.9, excavate and/or place and compact fill to a depth up to three hundred millimetres (300 mm) to meet the final ditch grade requirements. If sodding of ditches is required, excavate and/or place and compact fill to a depth up to three hundred millimetres (300 mm) to meet the final grade one hundred millimetres (100 mm) below finished ditch grade.
- E23.6.3 Excavation in excess of three hundred millimetres (300 mm) shall be treated as Common Excavation.
- E23.6.4 Placement of backfill material over three hundred millimetres (300 mm) in depth required to complete ditch grading will be treated as Fill Material – Placing of Suitable Site Material.

E23.7 Excavation

- E23.7.1 As per Specification CW 3110, Clause 3.2, Excavation shall consist of any excavation (including ditch excavation and boulevard excavation) to the lines, grades, and sections shown in the Drawings which yields surplus suitable Site material and/or unsuitable Site material, as determined by the Contract Administrator.
- E23.7.2 As per Specification CW 3110, Clause 3.2.3, dispose of surplus suitable and/or unsuitable Site material in accordance with Specification CW 1130, Clause 3.4.

MEASUREMENT AND PAYMENT

E23.8 Clearing and Grubbing

- E23.8.1 Clearing and Grubbing will be measured on an area basis and paid at the Contract Unit Price per hectare for “Clearing and Grubbing” as per Specification CW 3010. This shall be considered payment in full for the removal and disposal of any topsoil, grass, shrubs, and trees.

E23.9 Common Excavation – Suitable Site Material

- E23.9.1 As per Specification CW 3170, Clause 12.1, Common Excavation – Suitable Site Material will be measured on a volume basis. The volume shall be based on the total number of cubic metres excavated from its original position and determined by the method of Average End Areas. The excavated material must be deemed suitable Site material in accordance with Specification CW 3170 and accepted by the Contract Administrator.
- E23.9.2 As per Specification CW 3170, Clause 13.2, Common Excavation – Suitable Site Material will be paid at the Contract Unit Price per cubic metre (m³) for “Common Excavation – Suitable Site Material”.

E23.10 Fill Material – Placing of Suitable Site Material

- E23.10.1 As per Specification CW 3170, Clause 12.2(a), Fill Material - Placing Suitable Site Material will be measured on a volume basis. The volume shall be based on the total number of cubic metres (m³) compacted in place in accordance with Specification CW 3170 and accepted by the Contract Administrator.
- E23.10.2 Loading, hauling, placing and compaction of suitable Site material will be paid at the Contract Unit Price per cubic metre for “Fill Material – Placing of Suitable Site Material”. The volume to be paid for will be the total number of cubic metres loaded, hauled, placed and compacted in place. No separate payment will be made for material hauled from a suitable Site material stockpile rather than directly from an excavation.

E23.11 Grading of Boulevards

E23.11.1 As per Specification CW 3110, Clause 4.8, the grading of boulevards will be measured on an area basis and paid for at the Contract Unit Price per square metre for "Grading of Boulevards". The area to be paid for will be the total number of square metres (m²) of boulevards graded in accordance with Specification CW 3110, accepted and measured by the Contract Administrator. Grading of boulevards where excavation or fill placement exceeds one hundred and fifty millimetres (150 mm) will not be measured under this item of work and shall be treated as incidental to Excavation and Fill Material – Placing of Suitable Site Material.

E23.12 Ditch Grading

E23.12.1 As per Specification CW 3110, Clause 4.9, ditch grading will be measured on an area basis and paid for at the Contract Unit Price per square metre for "Ditch Grading". The area to be paid for will be the total number of square metres of ditch graded in accordance with Specification CW 3110, accepted and measured by the Contract Administrator. Grading of ditches where excavation or fill placement exceeds three hundred millimetres (300 mm) will not be measured under this item of work and shall be treated as incidental to Excavation and Fill Material – Placing of Suitable Site Material.

E23.13 Excavation

E23.13.1 As per Specification 3110, Clause 6.3, Excavation will be measured on a volume basis and paid for at the Contract Unit Price per cubic metre (m³) for "Excavation". The volume to be paid for will be the total number of cubic metres (m³) of surplus suitable Site or unsuitable Site material excavated in its original position as accepted and measured by the Contract Administrator.

E23.13.2 As per Specification CW 3110, Clause 6.3.4, disposal of surplus suitable and/or unsuitable Site will be included in the payment for "Excavation". No separate payment will be made for material hauled from a suitable Site material or unsuitable Site material stockpile rather than directly from an excavation.

E24. DISPOSAL OF WASTE MATERIAL

DESCRIPTION

E24.1 Further to Clause 3.4 of CW 1130-R4:

- (a) The Contractor shall haul approximately three thousand cubic metres (3,000 m³) of suitable site fill material as confirmed and approved by the Contract Administrator to the Dog Park Fill Placement Areas identified on Sheet 1 of the Drawings;
 - (i) Material placed in the Dog Park Fill Placement Areas shall be placed in three hundred millimetres (300 mm) lifts and compacted to ninety percent (90%) of Standard Proctor Density. After fill placement is completed as confirmed by the Contract Administrator, the area shall be graded to a smooth surface and finished with Planting Medium.
- (b) The Contractor may, if they choose, haul up to four thousand cubic metres (4,000 m³) of suitable site material as confirmed and approved by the Contract Administrator to the Cordite Landfill on Cordite Road between Lanigan Street and Plessis Road;
- (c) The Contractor shall, subject to approval by the Contract Administrator, dispose of any remaining suitable and unsuitable site materials and any topsoil, grass, brush, and trees as outlined in CW 1130-R4.

MEASUREMENT AND PAYMENT

E24.2 Suitable Site Material placed in the Dog Park Fill Placement Areas shall be paid at the Contract Unit Price per cubic metre for "Fill Material – Placing of Suitable Site Material". The volume to be paid for will be the total number of cubic metres loaded, hauled, placed and compacted in place. No separate payment will be made for material hauled from a suitable Site material stockpile rather than directly from an excavation.

- E24.3 Hauling and disposal of excavated material at the Cordite Landfill and any other location described in CW 1130-R5 are considered incidental to excavation. No further payment will be made for the hauling and disposal of excavated material at these locations.

E25. REMOVALS

E25.1 General Description

- (a) This specification shall cover the removal of:
 - (i) existing bollards;
 - (ii) existing gates; and
 - (iii) existing chain link fencing.
- (b) All items to remain shall be protected during construction to the satisfaction of the Contract Administrator.

E25.2 Methods

- (a) Equipment to be used for breaking up of concrete and removals shall be approved by the Contract Administrator.
- (b) Where removed structures are outside the proposed pavement structures, they shall be removed to a minimum depth of one metre (1 m) below final grade. Where existing concrete structures are within the proposed pavement structures, they shall be removed to a minimum depth of one metre (1 m) below subgrade elevation. Base materials may be left in place to the satisfaction of the Contract Administrator.
- (c) All chain link fencing shall be removed entirely. No base materials are to be left in place, and any connections to existing wood fencing should be patched and repaired by the contractor to the satisfaction of the Contract Administrator.
- (d) All materials, to be demolished and removed, are to be removed from the Site and disposed of in a safe and legal manner. Excavated materials shall be recycled or legally disposed of off-site.

E25.3 Method of Measurement and Basis of Payment

- (a) The removal of existing bollards and gates will be paid for on a unit basis at the Contract Unit Price for the "Items of Work" listed here below, 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. Where a gate includes multiple bases and arms but close together to form a single barrier to traffic, they will be measured as a single unit.
- (b) The removal of existing fences will be measured on linear basis. The linear distance to be paid for shall be the number of linear metres removed in accordance with this specification and accepted by the Contract Administrator, as computed by measurements made by the Contract Administrator.
- (c) Items of Work:
 - (i) Bollard Removal;
 - (ii) Gate Removal; and
 - (iii) Fence Removal.

E26. OWNER FURNISHED MATERIALS

E26.1 General Description

- (a) Materials supplied by Owner to be incorporated into the Work.

E26.2 Materials

- (a) The following materials are supplied by the Owner:
 - (i) Wood Chip Mulch for Mulch Pathways (NOT FOR THE TREE MULCH RINGS):
 - (i) from disease free hardwood trees;
 - (ii) varying in size from fifty millimetres (50 mm) to seventy-six millimetres (76 mm) long and six millimetres (6 mm) to fifteen millimetres (15 mm) thick; and
 - (iii) clean, free of debris, soil, friable materials and contaminants.

E26.3 Methods

- (a) The Wood Chip Mulch to be provided by owner and received by the Contractor.
- (b) The Contractor shall be responsible for the verification of the suitability of the materials for the intended use, and the safe handling and installation.
- (c) The Contractor accepts responsibility for the condition of the materials once delivered to the site, accepts full responsibility for the quality of the supply and installation of the finished product.
- (d) Contact client (City of Winnipeg Project Manager) for delivery coordination of the Wood Chip Mulch.

E26.4 Method of Measurement and Basis of Payment

E26.4.1 Method of Measurement shall be as follows:

- (a) No separate measurement for Owner Furnished materials shall be made for Wood Chip Mulch, as materials are incidental to the Works therein.

E26.4.2 Basis of Payment shall be as follows:

- (a) No separate measurement for Owner Furnished materials shall be made for Wood Chip Mulch, as materials are incidental to the Works therein.

E27. CHAIN LINK FENCING AND GATES

E27.1 General Description

- (a) Further to CW 3550, this specification shall cover the supply and installation of new chain link fencing, swinging vehicle gates and pedestrian gates as shown on the Drawings.

E27.2 Materials

- (a) Further to chain link fencing and gates as specified in CW 3550 and on Drawings.
 - (i) Fencing to be one point eight metres (1.8 m) in height.
 - (ii) Posts, Braces and Rails: To CAN/CGSB-138.2, galvanized steel pipe. Dimensions as indicated:
 - (i) Gate posts schedule 40 pipe;
 - (ii) End and corner posts .125 wall;
 - (iii) Line posts .100 wall.
 - (iv) Gate, end and corner posts: eight-nine millimetre (89 mm) diameter.
 - (v) Line posts: sixty millimetre (60 mm) diameter.
 - (vi) Rails: Minimum forty-three millimetre (43 mm) diameter.
 - (iii) Bottom Tension Wire: To CAN/CGSB-138.1, Table 2, single strand, galvanized steel wire, five millimetre (5 mm) $\varnothing$.
 - (iv) Tie Wire Fasteners: To CAN/CGSB-138.1, Table 2 (steel wire), single strand, galvanized conforming to requirements of fence fabric.
 - (v) Tension Bar: To ASTM A653/A653M, five millimetres by twenty millimetres (5 mm x 20 mm) minimum galvanized steel.
 - (vi) Gates: Double sided latching gate latches, lockable as indicated, to CAN/CGSB-138.4.

- (vii) Gate Frames: To ASTM A 53, galvanized steel pipe, standard weight forty-five millimetres (45 mm) outside $\varnothing$ pipe for outside frame, thirty-five millimetres (35 mm) outside $\varnothing$ pipe for interior bracing:
 - (i) Fabricate gates as indicated with electrically welded joints.
 - (ii) Furnish gates with galvanized, malleable iron hinges, latch and latch catch with provision for padlock, which can be attached and operated from either side of the installed gate.
- (viii) Fittings and Hardware: To CAN/CGSB-138.2, cast aluminium alloy, galvanized steel or malleable or ductile cast iron. Post caps to provide waterproof fit, to fasten securely over posts and to carry top rail.
- (ix) Organic Zinc Rich Coating: To CAN/CGSB-1.181.

E27.3 Methods

- (a) As per CW 3550 and the Drawings.

E27.4 Method of Measurement and Basis of Payment

E27.4.1 Method of Measurement shall be as follows:

- (a) Chain link fencing will be measured on a linear metre basis for:
 - (i) "Chain Link Fencing" on Form B: Prices.
- (b) Gates will be measured on a unit basis for:
 - (i) "Double Swinging Vehicle Gates" on Form B: Prices; and
 - (ii) "Single Swinging Pedestrian Gates" on Form B: Prices.

E27.4.2 Basis of Payment

- (a) Chain link fencing will be paid for at the Contract Unit Prices. The amount to be paid for shall be the total number of linear meters, as indicated on Form B: Prices, including all hardware and concrete foundations. This price shall be full payment for supplying all labour, equipment and materials, and performing all operations herein described and all other items incidental to the Work and as accepted by the Contract Administrator.
- (b) Gates will be paid for at the Contract Unit Prices. The amount to be paid for shall be the total number of units, as indicated on Form B: Prices, including all hardware and concrete foundations. This price shall be full payment for supplying all labour, equipment, and materials, and performing all operations herein described and all other items incidental to the Work and as accepted by the Contract Administrator.

E28. SITE FURNITURE

E28.1 General Description

- (a) This specification shall cover:
 - (i) The supply and installation of Granite Boulders;
 - (ii) The supply and installation of Waste Receptacles
 - (iii) The supply and installation of Wood Bollards;
 - (iv) The supply and installation of Removable Steel Bollards; and
 - (v) The relocation of existing limestone blocks.

E28.2 Materials

- (a) Granite Boulders
 - (i) Black Granite Blast Rock, Hand Placed:
 - (i) Nine hundred millimetres to fifteen hundred millimetres (900 mm to 1,500 mm) $\varnothing$ round or rectangular blast rock set 75mm below grade on compacted base or clay.

- (b) Waste Receptacles
 - (i) Full Size Trash Basket Expanded Metal, **Surface Placed** Product #5250105PrdC-i, painted aluminum finish, manufactured by the City of Winnipeg.
- (c) The contact for City of Winnipeg site furniture is:
 - (i) pwd-cps-orderdesk@winnipeg.ca
- (d) Wood Bollards
 - (i) Wood Post Bollard per City of Winnipeg Detail SCD-105B available at <https://legacy.winnipeg.ca/ppd/Documents/CityPlanning/Parks/StandardConstructionDetails/100ParkEquipment/SCD-105B-Post-Bollard.pdf>
 - (ii) 190mm – 230mm ø Pressure Treated Wood Post, set 19mm ø crushed limestone backfill, compacted at base and compacted and mounded at grade.
- (e) Removable Steel Bollards
 - (i) Removable Steel Bollards per City of Winnipeg Detail SCD-105C available at <https://legacy.winnipeg.ca/ppd/Documents/CityPlanning/Parks/StandardConstructionDetails/100ParkEquipment/SCD-105C-Removable-Steel-Bollard.pdf>
 - (ii) One hundred millimetre (100 mm) ø Steel Pipe c/w welded metal cap and reflective tape band.
 - (iii) Base: one hundred and fifteen metre (115 m) ø Steel pipe set into three hundred millimetre wide by one thousand two hundred and twenty millimetre deep (300 mm wide x 1,220 mm) concrete base c/w six millimetre (6 mm) thick welded steel plate cap.
 - (iv) Finish: Primed with Rustoleum Number 769 and painted with Sapolin Black Wrought Iron Finish.

E28.3 Methods

- (a) All City-manufactured site furnishings are to be ordered and picked up from the City.
- (b) All furnishings are to be installed according to Drawings and manufacturer's specifications, using approved non-rusting, vandal resistant fasteners to ensure solid, durable, finished work suitable for the purpose intended. Fasteners and assembly hardware shall be incidental to the Work.
- (c) All furnishings are to be installed plumb and true to correct elevations. The Contractor shall confirm proposed locations with the Contract Administrator prior to installation.
- (d) Site furnishings are to be kept clean of any granular, concrete or other materials. Any damaged surfaces shall be touched-up to the satisfaction of the Contract Administrator.
- (e) Supply and install boulders and relocate existing limestone blocks at the locations shown in the Drawings. Care shall be taken to prevent damage to the boulders. Should the boulders be damaged or cracked during transportation or installation, they shall be replaced at the Contractor's expense.

E28.4 Method of Measurement and Basis of Payment

E28.4.1 Method of Measurement shall be as follows:

- (a) Site furnishings will be measured on a per unit basis on Form B: Prices for:
 - (i) "Supply & Install Granite Boulders" on Form B: Prices;
 - (ii) "Supply & Install Waste Receptacles" on Form B: Prices;
 - (iii) "Supply & Install Post Bollards" on Form B: Prices;
 - (iv) "Supply & Install Removable Bollards" on Form B Prices; and
 - (v) "Relocate Limestone Blocks" on Form B Prices.

E28.4.2 Basis of Payment

- (a) Site furnishings will be paid for at the Contract Unit Prices. The amount to be paid for shall be the total number of units, as indicated on Form B: Prices. This price shall be full payment for supplying all labour, equipment and materials, and performing all operations

herein described and all other items incidental to the Work and as accepted by the Contract Administrator.

E29. PLANTING MEDIUM AND FINISHED GRADING

E29.1 Description

E29.1.1 Provide all labour, materials, methods, equipment, and accessories for the supply and installation of planting medium for planting beds.

E29.2 References

E29.2.1 Agriculture and Agri-Food Canada

.1 The Canadian System of Soil Classification, Third Edition, 1998.

E29.2.2 Canadian Council of Ministers of the Environment (CCME) Guidelines.

E29.2.3 The City of Winnipeg Standard Construction Specifications:

.1 CW 1130 – Site Requirements; and

.2 CW 3540 – Topsoil and Finish Grading for Establishment of Turf Areas.

E29.3 Submittals

E29.3.1 Submit half a kilogram (0.5 kg) sample of planting medium 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.

E29.3.2 Submit two (2) copies of soil analysis and recommendations for corrections to Contract Administrator.

E29.3.3 Submit two litre (2 L) sample of compost to Contract Administrator with manufacturers literature and material certification that the product meets the CCME guidelines.

E29.4 Quality Assurance

E29.4.1 This project shall use locally produced planting medium, amended as required.

E29.4.2 Inform Contract Administrator of proposed source of materials to be supplied and provide a sample for review by Contract Administrator prior to installation.

E29.4.3 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.

E29.4.4 Inspection and testing of planting medium will be carried out by a Testing Laboratory chosen by the Contractor. Testing laboratory to be certified in accordance with CSA A283.

E29.4.5 A minimum of three (3) tests area required:

(a) Test 1 – planting medium;

(b) Test 2 – amended planting medium based on the results of Test 1; and

(c) Test 3 – re-testing of planting medium if required, to meet specifications.

E29.4.6 Test planting medium for nutrients N, P, K, micronutrients, soluble salt content, pH value and OM (organic matter).

E29.4.7 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.

E29.5 Delivery, Storage and Handling

- E29.5.1 Store materials in a dry area, protected from freezing, sedimentation, and contamination.
- E29.5.2 Deliver and store fertilizer in waterproof bags labeled with weight, analysis, and name of manufacturer.

E29.6 Materials

- E29.6.1 Topsoil: In accordance with CW 3540 for topsoil except organic matter to be in the range of five to ten percent (5 to 10%).
- E29.6.2 Peatmoss: deliver from partially decomposed fibrous or cellular stems and leaves of species of sphagnum mosses. Elastic and homogeneous, brown in colour. Free of wood and deleterious material that could prohibit growth. Shredded particle minimum size: five millimetres (5 mm).
- E29.6.3 Compost:
- (a) Mixture of soil, decomposing organic matter used as fertilizer, mulch or soil conditioner.
 - (b) Dark brown in colour, no objectionable odour.
 - (c) Processed organic matter containing forty percent (40%) or more organic matter as determined by Walkley-Black or Lost on Ignition (LOI) test.
 - (d) Must be sufficiently decomposed (i.e. stable) so that any further decomposition does not adversely affect plant growth (C:N ratio below 25:1) and contain no toxic or growth inhibiting contaminants.
 - (e) Composed bio-solids to: CCME Guidelines for Compost Quality, Category A.
- E29.6.4 Sand: hard fine silica sand, well washed and free of impurities, chemical or organic matter. Coarse texture, and to the following gradation:

<u>Particle Size (mm)</u>	<u>% Passing through Screen</u>
2.0	100%
1.0	95 to 100%
0.5	80 to 100%
0.25	0 to 30%
0.15	0 to 8%
0.075	0 to 1%

E29.6.5 Planting Medium

- (a) All planting media shall be a thorough blend of the materials noted above in the proportions and to the fertility parameters noted below.
 - (b) Keep all materials moist during blending stage to facilitate uniform mixing and to minimize peat, soil and sand separation.
 - (c) Final mix shall have a pH of between six and a half (6.5) and eight (8) unless otherwise noted.
 - (d) Provide a two (2) gallon sample of the planting medium tested including test results.
 - (e) Planting medium for planting beds, tree pits and sod areas to contain (by volume):
 - (i) Forty percent (40%) Topsoil;
 - (ii) Thirty-five percent (35%) Peat;
 - (iii) Twenty percent (20%) Coarse Sand; and
 - (iv) Five percent (5%) Compost.
- E29.6.6 Fertilizer: Synthetic start-up slow release fertilizer with a N-P-K analysis of 12-36-15 ratio at a rate of four kilograms (4 kg) per one hundred square metres (100 m²) which is eight pounds (8 lbs) per one hundred square feet (100 ft²).

E29.7 Construction Method

E29.7.1 Excavation

- (a) Excavate planting beds by hand or using approved soft digging technology unless otherwise directed by Contract Administrator. Dispose of all rock, clay soils and other deleterious materials off-site.
- (b) Protect bottom of excavations against freezing.
- (c) Remove water that has entered the excavation prior to planting. Notify Contract Administrator if water source is groundwater.
- (d) Verify and obtain approval by Contract Administrator of planting beds prior to compacted soil mound and planting medium placement.

E29.7.2 Planting Medium Placement

- (a) Place planting medium in uniform layers over approved, unfrozen sub-grade, to the depth indicated on the Drawings.
- (b) Eliminate rough spots and low areas, Prepare a loose, friable bed, boot firm and level.

E29.7.3 Soil Amendments

- (a) Apply lime, sulphur, or other soil amendment at a rate determined and recommended from planting medium sample test.
- (b) Mix soil amendment well into full depth topsoil prior to application of fertilizer.

E29.7.4 Finished Grading and Rolling

- (a) Per CW3540.
- (b) 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.

E29.8 Surplus Material

E29.8.1 Dispose of unused planting medium off-site in accordance with CW1130.

E29.9 Cleaning

E29.9.1 Perform cleaning to remove accumulated environmental dirt from all paved surfaces of building faces. Remove surplus materials, rubbish, tools and equipment barriers.

E29.10 Measurement and Payment

E29.10.1 Supply and placement of planting medium shall be measured on an area basis and paid for at the Contract Unit Price per square metre as indicated on Form: B for "Planting Medium". The area to be paid for shall be the total square metre volume installed in accordance with this specification, accepted and measured by the Contract Administrator.

- (a) Items of Work:
 - (i) Planting Medium.

E30. TOPSOIL AND SODDING

E30.1 General Description

- (a) This specification shall cover the site preparation and the supply and installation of topsoil and sod.

E30.2 Materials

- (a) Topsoil: As per CW 3540.
- (b) Sodding:
 - (i) As per CW 3510; and
 - (ii) Sod shall be mineral base.
- (c) Organic based three-four-three (3-4-3) starter fertilizer

E30.3 Methods

- (a) Areas to be sodded shall be excavated and/or filled with clean fill and graded to meet the grades required for the installation of topsoil and sod and as shown on the Drawings. Surplus materials shall be removed off-site in a legal manner.
- (b) Topsoil shall be installed to a minimum of seventy-five millimetre (75 mm) compacted depth.
- (c) Fertilizer Rate: applied at manufacturer's stated rates to topsoil prior to sodding. Bag tags to be supplied to the Contract Administrator.
- (d) Where Sodding meets existing turf, the edges are to be cut neatly in straight lines using a sod cutter and new sod is to be installed to match the existing grades of the surrounding turf.
- (e) Seams between new and old turf are to be top-dressed, seeded and rolled.

E30.4 Maintenance Period

- (a) The Contractor shall maintain the sod for thirty (30) Calendar Days after the completion of the installation or until such a time as the turf is established in accordance with CW 3510.

E30.5 Method of Measurement and Basis of Payment

E30.5.1 Method of Measurement shall be as follows:

- (a) Topsoil and sodding will be measured on a square metre basis for: (i) "Topsoil and Sodding" on Form B: Prices.

E30.5.2 Basis of Payment

- (a) Topsoil and sodding will be paid for at the Contract Unit Prices. The amount to be paid for shall be the total number of units, as indicated on Form B: Prices. This price shall be full payment for supplying all labour, equipment and materials, and performing all operations herein described and all other items incidental to the Work and as accepted by the Contract Administrator.
- (b) Payment under this section shall be in accordance with the following:
 - (i) Seventy-five percent (75%) following the supply and installation of the topsoil and sod; and
 - (ii) Twenty-five percent (25%) following termination of the maintenance period.

E31. TREE PLANTINGS

E31.1 General Description

- (a) This specification shall cover the site preparation, the supply and installation of trees, and tree warranty.

E31.2 Materials

- (a) Trees
 - (i) The size and type as specified on the Drawings, and in no case less than sixty-five millimetres (65 mm) Ø.

- (ii) Plant material shall be of quality and sizing consistent with all sections of “Canadian Guide for Nursery Stock” latest edition as published by the Canadian Nursery Trades Association. Plants are to be measure when in their natural position. Height and spread dimensions refer to the main body of the plant and not to the distance from branch tip to branch tip. Measurement of calliper is to be at a height of fifteen centimetres (15 cm) above the base of the tree as measured in the nursery. All other measurements are to be as per Canadian Guide for Nursery Stock.
 - (iii) Trees shall be number one grade having only sturdy stems that are reasonably straight for type, a well-balanced crown, and a single dominant leader. Trees shall be well branched, true to type, and structurally sound. Contract Administrator reserves the right to reject any trees that do not meet these criteria or show signs of disease, mechanical damage, insect or rodent damage, sunscald, or frost cracks. All parts of the tree shall be moist and show live, green cambium beneath the surface of the bark.
 - (iv) Plants from native stands, woodlots, orchards, or abandoned nurseries shall be deem ‘collected’. The use of collected plants will not be permitted.
- (b) Planting Medium
 - (i) Planting Medium shall be screened four- (4) way mix garden soil with a mixture of two (2) parts black loam topsoil, one part sand, and one part peat moss.
- (c) Tree Stakes
 - (i) Three (3) – Seventy-five millimetre (75 mm) round, firmly anchored pressure-treated wooden stakes per tree, one hundred and fifty millimetres (150 mm) max from rootball as shown on Drawings.
 - (ii) Tree fixed with woven polypropelene strap to each stake.
- (d) Tree Protection Mesh
 - (i) Galvanized welded wire mesh, 12.5 gauge, one hundred millimetres (100 mm) (four inches [4"]) high by fifty millimetre (50 mm) (two inch [2"]) wide openings, one point twenty-two metre (1.22 m) panel height. Acceptable product: Yardguard welded wire mesh or approved equal.
 - (ii) All trees planted within the fenced area of the On-Leash Dog Park are to have Tree Protection Mesh installed.
- (e) Trunk Collar
 - (i) One hundred millimetre (100 mm) ø corrugated HDPE Pipe, six hundred millimetre (600 mm) height.
- (f) Watering Saucer
 - (i) Local shredded Natural Wood Chip from locally harvested elm or ash to depths as indicated on Drawings. Pine Bark Mulch will not be accepted.

E31.3 Methods

- (a) Trees to be planted consistent with the details provided on the Drawings.
- (b) All nursery stock shall be well protected from damage from the time of digging until the time of planting on site. Supply and Installer are to ensure that the root ball is protected from drying out and that all roots have been cleanly cut.
- (c) Transport of nursery stock shall be done in a manner so that trees do not suffer damage. Branches shall be tied to reduce the risk of mechanical damage. Equipment used to handle nursery stock shall be padded. Nursery stock shall be maintained in a moist condition from time of arrival on site until time of planting.
- (d) At the end of the maintenance period, the Contractor is to remove any stakes and tree ties from the Site.

E31.4 Method of Measurement and Basis of Payment

E31.4.1 Method of Measurement for trees and maintenance shall be as follows:

- (a) Trees will be measured on a per unit basis for
 - (i) "Supply & Install Trees" on Form B: Prices.

E31.4.2 Basis of Payment

- (a) Trees will be paid for at the Contract Unit Prices. The amount to be paid for shall be the total number of units, as indicated on Form B: Prices. This price shall be full payment for supplying all labour, equipment, and materials, and performing all operations herein described, including mulch, topsoil and installation of tree stakes and welded wire mesh and all other items incidental to the Work and as accepted by the Contract Administrator.

E32. LANDSCAPE MAINTENANCE

E32.1 Description

E32.1.1 Provide all labour, materials, methods, equipment and accessories for the maintenance of trees and sod following acceptance of the plant material to start warranty.

E32.1.2 In general, the Work shall include:

- (a) Fertilizing;
- (b) Watering;
- (c) Weed Control;
- (d) Pest and disease Control; and
- (e) Winter Preparation.

E32.1.3 Maintenance shall be performed on a bi-weekly basis at a minimum.

E32.1.4 Mowing will be performed by City staff, following acceptance as outlined in City of Winnipeg Standard Specification CW 3510.

E32.2 Maintenance and Warranty Period

E32.2.1 Thirty (30) days after the planting installation has been completed, the Contract Administrator shall perform an inspection of the plant material to determine if the plant material is acceptable to start warranty.

E32.2.2 The maintenance and warranty period shall begin following acceptance of plant material by Contract Administrator and shall be for a period of two (2) years.

E32.3 Submittals

E32.3.1 Submit maintenance log to Contract Administrator indicating date, times, employee, start time, stop time and maintenance activities.

E32.3.2 Payment will not be processed without receipt of maintenance logs.

E32.4 Materials and Equipment

E32.4.1 Materials shall conform to the requirements of related Specification sections.

E32.4.2 Provide all equipment to properly execute Work. Maintain such equipment in a workable, safe condition while in use during this project.

E32.4.3 Contract Administrator shall review equipment to be used to execute Work prior to execution.

E32.5 Method

E32.5.1 General

- (a) Provide watering service within twenty-four (24) hours, weeding services within forty-eight (48) hours of the request by the Contract Administrator. Monitor the Site and advise the Contract Administrator of conditions that might void the Contractor's warranty responsibilities.
- (b) Provide maintenance schedule to Contract Administrator prior for the two (2) year maintenance period.
- (c) Contractor shall notify Contract Administrator of the exact time Contractor proposes to commence each application.
- (d) Schedule operations in accordance with growth, health, weather conditions, and use of Site.
- (e) Perform each operation continuously and completely within a reasonable time period.
- (f) Store equipment and materials off-site.
- (g) Collect and dispose of debris or excess material on the day the maintenance is undertaken.

E32.5.2 Maintenance of Trees:

- (a) Fertilizing: Apply fertilizer only at frequency, ratio and rates as recommended by manufacturer. Water immediately after fertilizing. Apply fertilizer no later than May 30th of each maintenance year.
- (b) Watering: Apply water as required to supplement rainfall and to maintain optimum growing conditions. In general, water once a week to achieve rates as indicated. Allow soil to adequately dry between watering to prevent over saturation without creating water stress. Subject to the above-noted requirements, the Contractor must water at least once a week between May 1st and October 15th inclusive. A complete record is to be kept of each series of waterings for all planted trees noting location and date of watering. This record is to be given to the Contract Administrator when requested. Apply forty litres (40 L) of water per twenty-five millimetre (25 mm) calliper per application using a deep root feeder or low pressure open flow nozzle and hose. The water stream must not gouge the soil.
- (c) Weed Control: Inspect and undertake weed control weekly during the first year of maintenance and monthly during the second year. By hand, remove all weeds with their roots from tree pits and tree beds and dispose of off-site. When weeding operation is complete, replace and rake displaced soil to its original condition.
- (d) Pests and Diseases: Obtain written approval of Contract Administrator prior to using any pesticide. Control pests and disease through pruning or application of pesticides. Use species specific pesticides where possible. Use only pesticides of low mammalian toxicity. Strictly follow manufacturer's written instructions.
- (e) Pruning: The Contractor shall provide a person with a Manitoba Arborists Certificate for each work crew or Work Site. Prune as required to remove dead, broken or damaged limbs. Prune back to healthy growth while maintaining balanced crown shape. Employ clean sharp tools. Make cuts smooth and flush with outer edge of branch collar near the main stem or branch. Cuts must be smooth and sloping to prevent accumulation of water on cut. Do not leave little stumps ("horns") on trunks or main branches. Prune according to accepted horticultural practices as outline in "The Pruning Manual", Publication No. 1505-1977 by Agriculture Canada.
- (f) Winter Preparation: Ensure adequate moisture in tree root zones prior to freeze-up.

E32.6 Maintenance Period

- (a) All trees installed as part of this Contract shall be guaranteed for a minimum period of two years from the recognized completion date. Any trees found in poor condition or dead during this period shall be subject to replacement with stock meeting the original specification and using methods/techniques consistent with the original specification, without cost to the City. During the growing season, the removal of said tree shall occur within two weeks of the Contractor being notified of the condition of the tree and the planting hole restored. The replacement tree shall be planted as it becomes available and at a time deemed most suitable for that specific tree species, as determined by the Contract Administrator. Excepted are materials or items damaged due to accidental causes or vandalism, which will not be subject to warranty.
- (b) Contract Administrator reserves the right to extend the Contractor's warranty obligations for an additional one year period if, at the end of the initial warranty period leaf development and growth are not sufficient to ensure future survival.
- (c) Replacement trees installed under the terms of the warranty shall be maintained for a period of two (2) years from the date that the replacement plant is installed.

E32.7 Measurement and Payment

E32.7.1 Method of Measurement shall be as follows:

- (b) Landscape Maintenance will be measured on a monthly percentage based on the date of Substantial Completion in relation to the total time of Landscape Maintenance Period, as indicated on Form B: Prices.
- (c) Maintenance on trees will be measured on a yearly basis, to a maximum of two (2) years even if the maintenance period is extended following replacement, for:
 - (i) "Maintenance and Warranty on Trees" on Form B: Prices.

E32.7.2 Basis of Payment

- (d) Landscape Maintenance will be paid for as a percentage completed based on total time. This price shall be full payment for supplying all labour, equipment, and materials including water and fertilizer, and performing all operations herein described, and all other items incidental to the Work and as accepted by the Contract Administrator.
- (e) Maintenance on trees will be paid for at the Contract Unit Prices. The amount to be paid for shall be the total number of units, as indicated on Form B: Prices. This price shall be full payment for supplying all labour, equipment, and materials, and performing all operations herein described and all other items incidental to the Work and as accepted by the Contract Administrator.

E33. STUMP REMOVAL

DESCRIPTION

- E33.1 This Specification shall amend the City of Winnipeg Standard Construction Specification CW 3010 "Clearing and Grubbing" and shall cover the removal of tree stumps as specified on the Contract Drawings. The City of Winnipeg, Forestry Branch must be contacted prior to removing any trees and tree stumps.

MATERIALS

E33.2 General

- (a) The grinding of stumps specified by the Contract Administrator shall be done with the use of a mechanical stump grinder.

CONSTRUCTION METHODS

- E33.3 Remove only trees and tree stumps marked and confirmed for removal in the field by the Contract Administrator.
- E33.4 Remove trees and tree stumps in accordance with CW 3010.
- E33.5 The Contractor shall arrange for any Elmwood to be disposed of by the City of Winnipeg.
- E33.6 Stump Removal:
- (a) Stumps located outside the pavement structure will be ground a minimum depth of three hundred millimetres (300 mm) from top of finished grade and the material removed from the specified areas as marked and confirmed by the Contract Administrator;
 - (b) Stumps located within the pavement structure will be ground a minimum depth of three hundred millimetres (300 mm) from top of subgrade and the material removed from the specified areas as marked and confirmed by the Contract Administrator;
 - (c) The Contractor shall take all precautions to prevent damage to traffic, structures, pole lines, adjacent properties and to trees and shrubs designated to be saved; and
 - (d) Remove and dispose of material as per CW 3010 Clause 9.

MEASUREMENT AND PAYMENT

- E33.7 Removal of trees and any stumps or roots the Contractor can remove utilizing a hydraulic excavator or dozer shall be incidental to Clearing and Grubbing. No further payment shall be made for tree removal.
- E33.8 Grinding of tree stumps the Contractor cannot remove utilizing a hydraulic excavator or dozer will be measured on a unit basis and paid for at the Contract Unit Price per unit item of "Stump Grinding". The number to be paid for will be the total number of stumps ground in accordance with this Specification and accepted by the Contract Administrator.

E34. MULCH PATHWAYS

DESCRIPTION

- E34.1 This specification describes the installation of Mulch Pathways utilizing Owner supplied materials.

MATERIALS

- E34.2 The Contractor shall use the Owner Furnished wood chip mulch as described in E26 for all Mulch Pathways.

CONSTRUCTION METHODS

- E34.3 The Contractor shall spread wood chip mulch over the existing ground surface to an average thickness of one hundred and twenty-five millimetres (125 mm) at the locations shown in the Drawings and as confirmed by the Contract Administrator.

MEASUREMENT AND PAYMENT

- E34.4 Mulch Pathways will be measured on an area basis and paid for at the Contract Unit Price per square metre (m²) for "Mulch Pathways". The area to be paid for will be the total number of square metres of pathways constructed within the limits set out in the Drawings, in accordance with this specification, as accepted and measured by the Contract Administrator.

E35. PRECAST CONCRETE PARKING CURBS

DESCRIPTION

- E35.1 This specification covers the salvage, removal, supply, and installation of precast concrete parking curbs.

MATERIALS

- E35.2 Supplied Precast Concrete Barrier Curbs shall be:
- (a) Barkman Parking Barrier Curbs or an approved alternate;
 - (b) Two point four-four metres (2.44 m) long; and
 - (c) complete with pins for installation.

CONSTRUCTION METHODS

- E35.3 Salvage Precast Concrete Barrier Curbs identified for salvage by the Contract Administrator. If any Precast Concrete Barrier Curbs are damaged prior to work on the Site as confirmed by the Contract Administrator, the Contractor shall remove and dispose of them.
- E35.4 Salvaged Precast Concrete Barrier Curbs shall be stored at a safe and appropriate location determined by the Contractor. The Contractor shall be responsible for any damage to stored Precast Concrete Barrier Curbs due to improper storage.
- E35.5 Any Precast Concrete Barrier Curbs damaged due to negligent handling or lack of care by the Contractor shall be replaced by the Contractor at their own cost.
- E35.6 Install Precast Concrete Barrier Curbs according to the manufacturers recommendations at the locations shown in the Drawings as confirmed by the Contract Administrator. If the salvaged Precast Concrete Barrier Curbs are insufficient in quantity to complete the Project, the Contractor shall supply the remaining Precast Concrete Barrier Curbs.

MEASUREMENT AND PAYMENT

- E35.7 The salvage and storage of Precast Concrete Parking Curbs will be measured on a unit basis and paid for at the Contract Unit Price per unit for "Salvage Precast Concrete Parking Curbs" The number of units to be paid for will be the total number of Precast Concrete Parking Curbs salvaged and stored in accordance with this specification, accepted and measured by the Contract Administrator.
- E35.8 The removal and disposal of damaged Precast Concrete Parking Curbs will be measured on a unit basis and paid for at the Contract Unit Price per unit for "Remove Precast Concrete Parking Curbs" The number of units to be paid for will be the total number of Precast Concrete Parking Curbs removed and disposed of in accordance with this specification, accepted and measured by the Contract Administrator.
- E35.9 The supply of Precast Concrete Parking Curbs will be measured on a unit basis and paid for at the Contract Unit Price per unit for "Supply Precast Concrete Parking Curbs" The number of units to be paid for will be the total number of Precast Concrete Parking Curbs supplied in accordance with this specification, accepted and measured by the Contract Administrator.
- E35.10 The installation and storage of Precast Concrete Parking Curbs will be measured on a unit basis and paid for at the Contract Unit Price per unit for "Salvage Precast Concrete Parking Curbs" The number of units to be paid for will be the total number of Precast Concrete Parking Curbs salvaged and stored in accordance with this specification, accepted and measured by the Contract Administrator. This shall be considered payment in full for supplying any hardware, tools, and labour required to install salvaged and supplied Precast Concrete Parking Curbs.

E36. SILT FENCE

E36.1 Description

- E36.1.1 This Specification shall cover all operations relating to the work necessary for the supply, installation, and maintenance of silt fence, as herein specified.
- E36.1.2 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.

E36.2 Scope of Work

- E36.2.1 The Work under this Specification shall include the following items, to the limits as shown on the Drawings or as otherwise directed by the Contract Administrator:
- (a) Supplying and installing temporary silt fences;
 - (b) Maintaining silt fences until final site restoration; and
 - (c) Removing silt fences.

E36.3 Materials

E36.3.1 General

- (a) All materials supplied under this Specification shall be of a type approved by the Contract Administrator and shall be subject to inspection and testing by the Contract Administrator.
- (b) The Contractor shall be responsible for the supply, safe storage and handling of all materials as set forth in this Specification. All materials shall be handled in a careful and workmanlike manner, to the satisfaction of the Contract Administrator.

E36.3.2 Fence Posts

- (a) Fence posts shall be thirty-eight millimetres by thirty-eight millimetres (38 mm x 38 mm) untreated wood posts, forty-one millimetre (41 mm) steel tee posts, or punched steel U posts, minimum length of one point two metres (1.2 m).

E36.3.3 Filter Fabric

- (a) Filter fabric shall be a woven geotextile material specifically designed for a silt fence application, meeting the following minimum requirements:

Property	Test Method	Value
Grab Tensile Strength	ASTM D4632	1.33 kN (machine direction), 0.89 kN (cross machine direction)
Grab Tensile Elongation	ASTM D4632	15%
Mullen Burst	ASTM D3786	3,100 kPa
Puncture	ASTM D4833	0.53 kN
Trapezoid Tear	ASTM D4533	0.28 kN
UV Resistance	ASTM D4355	90% @ 500 hrs
Apparent Opening Size (AOS)	ASTM D4751	0.43 mm
Flow Rate	ASTM D4491	1,420 L/min/m ²

- (i) The fabric shall be inert to commonly encountered soil chemicals, hydrocarbons, mildew and bacteria.

E36.3.4 Fencing Material Fasteners

- (i) Staples or wire ties of sufficient strength and spacing to maintain the fence in its intended location.

E36.4 Construction Methods

E36.4.1 General

- (i) Silt fencing shall be installed along areas where there is stripped or exposed soil where run-off would leave the limits of the Site. Final locations of the silt fence will be determined by the Contract Administrator.

E36.4.2 Silt Fence Installation

- (i) Excavate a one hundred and fifty millimetre by one hundred and fifty millimetre (150 mm x 150 mm) anchor trench along alignment of silt fence.
- (ii) Install fence posts in accordance with Manufacturer's recommended installation methods. Fence posts shall be firmly driven into undisturbed soil or are completely and firmly backfilled if installed via auger methods.
- (iii) Attach silt fence filter fabric to the fence posts using suitable fasteners. Overlap any fence seams by four hundred and fifty millimetre (450 mm) minimum. Ensure that the filter fabric is installed on the upslope side of the post and are fully laid within the anchor trench.
- (iv) Install and compact impermeable excavated materials into anchor trench and slope as required. Compact to ninety-five percent (95%) of maximum dry density in accordance with ASTM D-698.

E36.4.3 Silt Fence Maintenance

- (i) All silt fences shall be inspected immediately after major runoff events. Any required repairs shall be made immediately. The silt fence shall be maintained in place, without gaps, and without undermining, so as to prevent sediment passage through and under the barrier. Silt fences shall be maintained vertical without tears and without sagging. Fence posts shall remain upright and shall not be loosely placed into the ground.
- (ii) Accumulated sediment that is three hundred millimetres (300 mm) or greater in depth shall be carefully removed and disposed of offsite without disturbing the silt fence. Accumulated sediment shall also be removed as necessary to perform maintenance repairs. Accumulated sediment shall be removed immediately prior to removal of the silt fence.

E36.4.4 Silt Fence Removal

- (i) Remove silt fences following completion of all site construction activities (including final restoration and cleanup) and after installation of all topsoil, Planting Medium and trees.
- (ii) Restore areas disturbed, without releasing any deleterious substances to the adjacent areas and water bodies.

E36.5 Quality Control

E36.5.1 Inspection

- (i) All workmanship and all materials furnished and supplied under this Specification are subject to close and systematic inspection and testing by the Contract Administrator including all operations from the selection and production of materials through to final acceptance of the specified Work.
- (ii) The Contractor shall be wholly responsible for the control of all operations incidental thereto, notwithstanding any inspection or acceptance that may have been previously given. The Contract Administrator reserves the right to reject any materials or Works, which are not in accordance with the requirements of this Specification.

E36.6 Measurement and Payment

E36.6.1 Silt Fence

- (a) Supplying, installing, maintaining, and removing silt fence shall be measured on a linear meter basis and paid for at the Contract Price per linear meter for "Silt Fence", performed in accordance with this Specification and accepted by the Contract Administrator, which price shall be paid in full for supplying all materials and for performing all operations herein described and all other items incidental to the Work.
- (b) Payment for silt fence shall be based on the following breakdown:
 - (i) Following supply and installation: Sixty percent (60%)
 - (ii) Following final removal: Forty percent (40%)
- (c) Removal of accumulated sediment from the silt fence shall be considered incidental to the Work and no separate measurement or payment shall be made.

E37. FRENCH DRAINS

DESCRIPTION

- E37.1 This specification pertains to the construction of French Drains adjacent to the road structure as shown on the Contract drawings.

MATERIALS

- E37.2 Drainage Material shall conform to Type 2 granular material in accordance with CW 2030.
- E37.3 Drainage Fabric shall conform to the requirements of Separation/Filtration Geotextile Fabric in accordance with CW 3130.

CONSTRUCTION METHODS

- E37.4 Installation of the French Drains shall not take place until installation of the sub-base materials is complete, and the ditch slopes have been backfilled and compacted adjacent to the road structure.
- E37.5 Excavate a trench to the grade and dimensions shown on the Drawings or as directed by the Contract Administrator. Excavate into the road structure as shown to ensure a physical connection between the sub-grade and the French drain.
- E37.6 Dispose of trench excavation material in accordance with Section 3.4 of CW 1130 or as directed by the Contract Administrator.
- E37.7 Repair any non-conforming trenches as directed by the Contract Administrator.
- E37.8 Compact sub-grade in the base of the trench to a minimum standard proctor of ninety percent (90%).
- E37.9 Place Drainage Fabric such that it overlaps above the geotextile fabric in the road structure a minimum of 300 millimetres. Ensure adequate geotextile fabric is placed to allow for wrapping the drainage material, including overlap joints above and at the ends of the French Drain.
- E37.10 Overlap joints in the geotextile fabric a minimum of five hundred millimetres (500 mm).
- E37.11 Backfill the trench with Drainage Material in three hundred millimetre (300 mm) lifts and compact to the satisfaction of the Contract Administrator. Place drainage material to the grade and dimensions shown on the Drawings or as directed by the Contract Administrator.
- E37.12 Place drainage material to ensure no damage occurs to the separation geotextile fabric.
- E37.13 Backfill above the French Drain with suitable Site material and compact to a standard proctor of ninety percent (90%) to the grade and dimensions shown on the Drawings or as directed by the

Contract Administrator. Ensure this material does not cover the ends as to block the flow of water into the ditch.

METHOD OF MEASUREMENT

- E37.14 Construction of French Drains will be measured on a unit basis. The Contractor will be paid according to the total number of French Drains constructed and approved by the Contract Administrator

BASIS OF PAYMENT

- E37.15 The construction of French Drains shall be paid for at the Contract Unit Price per French Drain for "Installation of French Drains", measured as specified herein, which price shall be payment in full for performing all operation herein described and other items incidental to the Work included in this Specification.

E38. RUMBLE STRIP

DESCRIPTION

- E38.1 The Contractor shall construct milled in rumble strips between the road lanes and multi-use path as shown on the Drawings.

EQUIPMENT

- E38.2 The Contractor shall provide all equipment and labour necessary for the construction of the rumble strips.
- E38.3 Rumble strips constructed outside of the tolerances shown on the Plans, or exhibiting any defects will be rejected and the Contractor shall be responsible for repairing such work.
- E38.4 The milling machine used shall either be equipped with an integral sweeping device mounted directly behind the cutter, or a separate sweeping operation shall be conducted as construction of the rumble strips progresses. The Contractor shall pick up and dispose of all debris created from the milling operation.

CONSTRUCTION METHODS

- E38.5 Construct the rumble strips to the dimensions shown on the Drawings as confirmed on site by the Contract Administrator.
- E38.6 The rumble strips shall be constructed with sufficient gaps for convenient installation of polyposts.
- E38.7 No rumble strips shall be installed inside the limits of crosswalks. Confirm crosswalk locations on site with the Contract Administrator.

MEASUREMENT AND PAYMENT

- E38.8 Installation of rumble strips shall be measured on a length basis and paid for at the Contract Unit Price for "Asphalt Rumble Strip". The length to be paid for will be the total number of metres of rumble strips constructed in accordance with this specification, accepted and measured by the Contract Administrator.

E39. POLYPOSTS

DESCRIPTION

- E39.1 This specification covers the supply and installation of white polyposts to be located between the proposed Kilcona Park Roadway and the adjacent multi-use path.

MATERIALS

- E39.2 Polyposts are to be Pexco FG 300 Model UR White, P/N 833FG336WHTUR249, 336 White UR, W/2 four inch by nine inch (4" x 9") WHT FHIP WRPS, <https://www.pexco.com/traffic/products/bollards-and-channelizer-posts/fg-300-posts/> or approved equivalent.
- E39.3 Bases are to be FG 300 Lite Black Base, P/N 800BASE100 or approved equivalent.
- E39.4 The materials and hardware to be supplied shall include all necessary materials to install the Polyposts as per the manufacturer's installation procedure.

CONSTRUCTION METHODS

- E39.5 Posts are to be installed using adhesive pads as per manufacturer's installation procedure.
- E39.6 Posts are to be installed in the buffer between the roadway and multi-use path spaced at six metres (6 m) on center, with final locations confirmed by the Contract Administrator.
- E39.7 The Contractor shall confirm the quantity with the Contract Administrator prior to ordering

MEASUREMENT AND PAYMENT

- E39.8 Supply of Polyposts shall be measured on a unit basis and paid for at the Contract Unit Price per unit for "Supply Polyposts". The number of units to be paid for shall be the total number of Polyposts, complete with mounting bases, supplied in accordance with this Specification, accepted and measured by the Contract Administrator.
- E39.9 Installation of Polyposts shall be measured on a unit basis and paid for at the Contract Unit Price per unit for "Install Polyposts". The number of units to be paid for shall be the total number of Polyposts installed in accordance with this Specification, accepted and measured by the Contract Administrator.

E40. WICKING GEOGRID COMPOSITE

DESCRIPTION

- E40.1 Further to CW 3130, this Specification covers the supply and installation of Wicking Geogrid Composite above the prepared subgrade as shown in the Drawings and any other areas required that are requested by the Contract Administrator.

MATERIALS

- E40.2 Wicking Geogrid Composite will consist of a high stiffness isotropic extruded geogrid component bonded to a wicking non-woven geotextile, possessing wicking properties in multiple directions at zero hydraulic gradient.

(a) Wicking Geogrid Composite Specifications: WickGrid™ or Equivalent.

Physical Property	Machine Direction	Cross-Machine Direction	Statistical Reporting	Test Method
Geogrid Properties				
Carbon Black Content	2%		TV	ASTM D 4218
Radial Stiffness @ 0.5% Strain, min	550 kN/m	550 kN/m	MARV	ASTM D 6637
Junction Efficiency, min	95%	95%	TV	ASTM D 7748
Aperture Size	30-40 mm		TV	Direct Measure
Flexural Rigidity, min	1,500,000		MARV	ASTM D 7748
U.V. Resistance, min	90% after 500 hours		MV	ASTM D 4355

Wicking Geotextile Component Properties			
Grab Tensile Strength, min	920 N	MARV	ASTM D 4632
CBR Puncture, min	2,400 N	MV	ASTM D 6241
Trapezoid Tear, min	400 N	MV	ASTM D 4533
Apparent Opening Size, max	0.08 mm	TV	ASTM D 4751
Permittivity, min	1.4 sec-1	MV	ASTM D 4491
Flow Rate, min	4,500 L/min/m2	TV	ASTM D 4491
Horizontal Wet-Front Movement, 983 minutes-@ Zero Gradient, min	3,000 mm	MV	ASTM C 1599 Modified
Maximum – Horizontal Wet-Front Velocity @ Zero Gradient	4,000 mm/hr	TV	ASTM C 1599 Modified
Contact Angle	0 Degrees	TV	ASTM D 7334
Wicking Geogrid Composite			
Bearing Capacity Improvement Factor, min	1.58	TV	AASHTO 1993 Modified <i>Determined from the Results of independent testing performed at University of Victoria, BC Canada – Publication 'Geotextiles and Geomembranes Journal' 'Vol53, Issue4 (August 2025)</i>
Modulus Improvement Factor, min	2.74	TV	
Hydraulic Improvement Factor, min	1.88	TV	

CONSTRUCTION METHODS

- E40.3 Install as shown on the Contract Drawings and as per CW 3130.
- E40.4 Adjacent geogrid rolls shall be installed with nine hundred millimetre (900 mm) overlap.

MEASUREMENT AND PAYMENT

- E40.5 The supply and Installation of the Composite Wicking Geogrid will be measured on an area basis (excluding overlap) and paid for at the Contract Unit Price per square metre (m²) for “Wicking Geogrid Composite”. The area to be paid for will be the total number of square metres of Composite Wicking Geogrid supplied and installed in accordance with this Specification, accepted and measured by the Contract Administrator.

E41. ENVIROGRID

DESCRIPTION

- E41.1 General
- Further to CW 3110 and CW-3130, this specification shall cover the supply and installation of EnviroGrid® as part of the temporary Harbourview Park Access Road between Springfield Road and the Harbourview parking lot. This product reduces the depth of the road structure and reduces sub-grade preparation requirements.
 - Referenced Standard Construction Specifications:
 - CW 3110-R22 – Sub-grade, Sub-Base and Base Course Construction; and
 - CW3130-R5 – Supply and Installation of Geotextile Fabrics.

MATERIALS

E41.2 Base Course Materials

- (a) Base course material of the types shown on the drawings or indicated in the specification will be supplied in accordance with CW 3110-R22.

E41.3 Geotextile Fabrics

- (a) Separation/Filtration fabrics of the types shown on the drawings or indicated in the specification will be supplied in accordance with CW 3130-R5.

E41.4 EnviroGrid® –EGA30 – six inch (6”) Depth Cells

EQUIPMENT

- E41.5 Manual installation only. No specialized equipment is necessary.

CONSTRUCTION METHODS

- E41.6 Excavate existing grass and topsoil only. Do not excavate any clay/silt subgrade material. Avoid any damage to tree roots and trunks during excavation. If tree roots are at the surface then little or no excavation is required. Limits of excavation will be marked out by the Contract Administrator.
- E41.7 A separation/filtration fabric should be used as a separator between the sub-base and the sub-grade. Unroll the geotextile directly on the sub-grade, overlapping adjacent panels by half a metre (0.5 m) (minimum).
- E41.8 Determine where the first section of EnviroGrid® is to be placed and put stakes at the four corners. Be sure to avoid damaging tree roots during stake installation.
- E41.9 Stretch a section beyond its intended length and then allow it to relax. Place the section over the embedded stakes. Additional stakes may be needed along the perimeter in order to get full expansion of each cell. Adjacent sections are installed in a similar fashion and butted or stapled together to achieve continuous coverage.
- E41.10 Install the base course material in the first rows of cells with a front-end loader or dump truck and push the rock into cells using shovels or a bulldozer blade. A “ramp” of fill material immediately adjacent to the EnviroGrid® will likely be necessary to allow equipment to climb onto the EnviroGrid®. Continue until all cells are filled. Never allow any equipment to drive over unfilled cells. Always overfill the cells slightly to allow for consolidation.
- E41.11 Compact the EnviroGrid® system. The most common method of compacting is through multiple passes by the tracked equipment used to spread the infill to satisfaction of contract administrator. A vibrating roller and/or water may be required to achieve the specified level of compaction.
- E41.12 Install additional base course over top the EnviroGrid® system to the depth indicated on the drawings.

MEASUREMENT AND PAYMENT

- E41.12.1 Supply and installation of EnviroGrid® will be paid for at the Contract Unit Price per square metre (m²) for " EnviroGrid", The area to be paid for will be the total number of square meters of EnviroGrid® that is installed in accordance with this specification, accepted and measured by the Contract Administrator.
- E41.12.2 Supply and installation of base course is as per CW 3110-R22.
- E41.12.3 Supply and installation of geotextile is as per CW 3130-R5.

E42. CRUSHED TOPPER

DESCRIPTION

E42.1 This specification describes the installation of Crushed Topper on granular pathways.

MATERIALS

E42.2 Granular topping:

- (a) Screenings: hard, durable, light colored, crushed limestone particles, free from clay lumps, cementation, organic material, frozen material and other deleterious materials.
- (b) Gradations to ASTM C 136 and ASTM C 117:

Sieve Designation	% Passing
9.5 mm	100
4.75 mm	50 to 100
2.00 mm	30 to 65
0.425 mm	10 to 30
0.075 mm	5 to 10

CONSTRUCTION METHODS

- E42.3 Place granular topping in lifts not exceeding fifty millimetres (50 mm) as indicated on the drawings and compact each layer to one hundred percent (100%) Standard Proctor Density in accordance with ASTM D 698. Add water as necessary to ensure finely graded material fully binds together.
- E42.4 Compact using pneumatic rolling equipment, hand vibrating equipment or a combination thereof to achieve the compaction requirements over the entire pathway area.

MEASUREMENT AND PAYMENT

- E42.5 The supplying, placing and compaction of 6 mm Crushed Topper material will be measured on a volume basis and paid for at the Contract Unit Price per cubic metre for "Crushed Topper". The volume to be paid for will be the total number of cubic metres of Crushed Topper supplied and placed in accordance with this specification, accepted and measured by the Contract Administrator.
- E42.6 The volume of Crushed Topper will be computed by multiplying the design layer thickness by the measured placement area, as measured by the Contract Administrator.
- E42.7 No measurement or payment will be made for materials rejected by the Contract Administrator.

E43. CSP CULVERT INSTALLATION (300 MM, 450 MM AND 600 MM)

- E43.1 Further to CW 3610, all CSP culverts shall be supplied of such a length to allow installation with no splice points under the limits of the asphalt pavement.
- E43.2 Where the CSP culvert intersects the fore slope of the ditch, the culvert shall be bevelled such that it matches the slope of the ditch. Bevelled culverts shall be stepped a one hundred millimetre (100 mm) at the invert and obvert of the culvert.
- E43.3 The estimated length of Corrugated Steel Pipe (CSP) listed in the Form B: Prices includes the length of the culvert bevelled ends to the invert location.

SUBMITTALS

E43.4 Shop Drawings

- E43.4.1 The Contractor shall submit shop drawings for the CSP culverts, (identifying corrugated profiles, gauges, and coupling band configurations) and the manufacturer's technical data sheets for the orange culvert end markers a minimum of seven (7) days prior to the supply of the culverts.

MATERIALS

E43.5 CSP Culverts, Fittings, and Accessories

- E43.5.1 Three hundred millimetre (300 mm), four hundred and fifty millimetre (450 mm), and six hundred millimetre (600 mm) diameter, two millimetre (2.0 mm) design thickness CSP pipe complete with coupler fittings, all hot dip galvanized and in accordance with CW 3610.

E43.6 Bedding and Initial Backfill

- E43.6.1 Bedding and backfill to a minimum of three hundred millimetres (300 mm) above the top of proposed culvert shall be Type 2 granular material in accordance with CW 2030.
- E43.6.2 Levelling Course (Sand) in accordance with CW 2030.

E43.7 Remaining Backfill

- E43.7.1 Backfill beyond three hundred millimetres (300 mm) above the top of proposed culvert (to the underside of the pavement structure) shall be Type 1 or Type 2 granular material in accordance with CW 2030.

E43.8 Clay Cap

- E43.8.1 Impervious clay caps shall be a minimum of 0.3 meters thick in accordance with CW 3310 and as accepted by the Contract Administrator.

CONSTRUCTION METHODS

- E43.9 Further to CW 3610, all CSP culverts shall be installed such that no splice in the CSP culvert shall be present under the limits of the asphalt pavement as shown on the Drawings.

MEASUREMENT AND PAYMENT

- E43.10 Culvert installation and payment shall be as per CW 3610-R5.
- E43.11 Bedding and backfill material will be considered incidental to the Contract Unit Price for CSP Culvert supply and installation and no measurement for payment will be made.
- E43.12 Establishing bevelled ends for CSP culverts as described in this specification and as shown in the Drawings will be considered incidental to the Contract Unit. Price for "Corrugated Steel Pipe Culvert - Supply" and no separate measurement for payment will be made for this work.

E44. CULVERT SAFETY GRATES

DESCRIPTION

E44.1 General

- E44.1.1 This specification covers the supply, structural fabrication, and field installation of safety grates on the bevelled ends of the four hundred and fifty millimetre (450 mm) and six hundred millimetre (600 mm) CSP culverts, as specified on the drawings and as directed by the Contract Administrator.
- E44.1.2 The CSP culvert safety grate shall consist of vertical bars attached to horizontal support bars.

- E44.1.3 A horizontal support bar shall be provided at the top and bottom of the culvert, and intermediate horizontal support bars shall be spaced at no less than seven hundred and fifty millimetres (750 mm).
- E44.1.4 The top horizontal support bar shall be secured to the obvert of the CSP culvert with a minimum of six (6) bolts.
- E44.1.5 The bottom and intermediate horizontal bar supports shall be secured to the sides of the CSP culvert with a minimum of one bolt on each side of the culvert.
- E44.1.6 The horizontal clear distance between vertical grate bars shall be one hundred and thirty to one hundred and forty millimetres (130 to 140 mm).
- E44.1.7 The clear distance between the culvert invert and the bottom horizontal bar shall be one hundred and forty millimetres (140 mm).
- E44.1.8 Vertical bars shall be connected to and terminated at the top and bottom horizontal support bar.
- E44.1.9 Bends in vertical bars shall be smooth and not exceed three hundred millimetres (300 mm) in radius.
- E44.1.10 Bends in horizontal bars shall be smooth and match the diameter of the culvert to which the grate unit is installed.
- E44.1.11 Bolts shall be hex head bolts. The minimum bolt diameter shall be nineteen millimetres (19 mm).
- E44.1.12 All bolts shall be furnished with one washer and one lock washer.
- E44.1.13 The grate unit shall be designed to allow for periodic removal and reinstallation for maintenance purposes.

SUBMITTALS

- E44.2 Shop Drawings
 - E44.2.1 The Contractor shall submit detailed shop drawings for the culvert safety grates, explicitly identifying all bar layouts, dimensions, spacing, and mechanical connection configurations, a minimum of seven (7) days prior to fabrication or supply.

MATERIALS

- E44.3 Fasteners
 - E44.3.1 Fasteners shall be stainless steel in accordance with ASTM F593, Type 304 or better.
- E44.4 Vertical Bars
 - E44.4.1 Continuous deformed steel bar in accordance with CSA G30.18 Grade 400W, the minimum size shall be 20M.
- E44.5 Horizontal Bars
 - E44.5.1 Continuous flat steel bar in accordance with CSA G40.21 Grade 300W.
 - E44.5.2 The top horizontal support bar shall have minimum dimensions of seventy-five by thirteen millimetres (75 mm x 13 mm).
 - E44.5.3 The bottom and intermediate horizontal support bars shall have a minimum dimension of fifty millimetres by thirteen millimetres (50 mm x 13 mm).
- E44.6 Galvanizing
 - E44.6.1 Continuous flat steel bar in accordance with CSA G40.21 Grade 300W.

- E44.6.2 Hot-dip galvanizing materials shall conform to ASTM A123, to a net retention of six hundred and ten grams per square metre (610 g/m²).

FABRICATION

- E44.6.3 The grate unit shall be fabricated as a single piece.
- E44.6.4 Welded connections shall be provided at every intersection of vertical grate bar and horizontal support bars.
- E44.6.5 Welded connections shall consist of flare bevel groove welds on both sides of the vertical bars and shall fill flush to the surface of the solid section of the vertical bar.
- E44.6.6 Welding shall be in accordance with CSA W59 and CSA W186 where applicable.
- E44.6.7 Following fabrication, the entire culvert grate shall be hot-dip galvanized in accordance with ASTM A123 to a net retention of six hundred and ten grams per square metre (610 g/m²).

MEASUREMENT AND PAYMENT

- E44.6.8 Supplying and Installation of CSP Culvert Safety Grates will be measured on a unit basis. The number to be paid for will be the total number of CSP Culvert Safety Grates installed in accordance with this specification and accepted by the Contract Administrator. This item of Work will be paid for at the Contract Unit Price per unit for "Supply and Install of CSP Culvert Safety Grates" performed in accordance with this Specification and accepted by the Contract Administrator

E45. RANDOM STONE RIPRAP

- E45.1 Further to CW 3610, this specification covers installation of random stone riprap at culvert inlet and outlet locations and within specified ditch sections to a minimum height and thickness of three hundred millimetres (300 mm) or as specified on the drawings.
- E45.2 Geotextile anchoring shall also be on both sides and along the ditch side slopes, as specified on the drawings. The type and pattern of anchoring pins shall be per the geotextile manufacturer's specifications and as directed by the Contract Administrator.

SUBMITTALS

- E45.3 Material Samples and Gradation Certificates
- E45.3.1 The Contractor shall submit a certified material testing sheet indicating rock source durability, density, and sieve gradation data a minimum of seven (7) days prior to placing rock on-site
- E45.4 Geotextile Data Sheets
- E45.4.1 The Contractor shall submit manufacturer specification sheets verifying that the proposed non-woven geotextile fabric conforms directly with the CW 3130.

MEASUREMENT AND PAYMENT

- E45.5 Method of Measurement
- (a) The installation of Random Stone Riprap will be measured on a volume basis. The volume to be paid for shall be the number of cubic metres (m³) installed in accordance with this Specification and accepted by the Contract Administrator, based on the surface area multiplied by the specified thickness.
- E45.6 Method of Payment
- (a) The installation of Random Stone Riprap will be paid for at the Contract Unit Price per cubic metre for "Random Stone Riprap" 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.

- (b) The supply of anchoring pins will be considered incidental to the Contract Unit.

E46. 1,000 MM DIAMETER CULVERT

DESCRIPTION

E46.1 General

- E46.1.1 This specification shall cover the supply and installation of a new one thousand millimetre (1,000 mm) diameter CSP culvert, including couplers, fittings, rodent screens, temporary water control design, and implementation, bedding, backfill, and ancillary works, as well as the partial demolition, complete plugging, grouting, and abandonment of the existing CSP culvert between Lake 4-4 and Lake 4-8.

E46.2 Scope

- E46.2.1 Work includes trench excavation, shoring (as required), temporary water control (as required), and disposal of all surplus or unsuitable material. Supply and installation of one (1) new one thousand millimetre (1,000 mm) diameter galvanized CSP culvert with associated couplers, fittings, and rodent screens. Placement and compaction of specified foundation bedding, haunching, initial backfill, and main backfill. Installation of end treatments including compacted clay seepage barriers (clay seals) and rock rip-rap erosion protection. Complete sub-surface abandonment of the existing culvert pipe.

E46.3 Referenced Standard Construction Specifications

- (a) CW 2030 – Excavation Bedding and Backfill
- (b) CW 3110 – Sub-Grade, Sub-Base and Base Course Construction
- (c) CW 3130 – Supply and Installation of Geotextile Fabrics
- (d) CW 3310 – Portland Cement Concrete Pavement Works
- (e) CW 3610 – Installation of Culverts
- (f) CW 3615 – Riprap

SUBMITTALS

E46.4 Temporary Water Control Plan

- E46.4.1 The Contractor shall be responsible for the design, installation, operation, maintenance, and removal of any temporary water control necessary to complete the works. The Contractor shall provide the Contract Administrator with a Temporary Water Control Plan, sealed by a Professional Engineer registered in the Province of Manitoba, a minimum of seven (7) days prior to the initial installation of the temporary water control.

E46.5 Shop Drawings

- E46.5.1 The Contractor shall submit shop drawings for the one thousand millimetre (1,000 mm) diameter CSP, identifying all couplers, fittings, and rodent screens, a minimum of seven (7) days prior to the supply of the culvert.

MATERIALS

E46.6 CSP Culverts, Fittings, and Accessories

- E46.6.1 One thousand millimetre (1,000 mm) diameter, two millimetre (2.0 mm) design thickness CSP pipe complete with couplers, fittings, and rodent screens, all hot dip galvanized and in accordance with CW 3610.

E46.7 Rodent Screens

- E46.7.1 Armtec Flow Guard Beaver Control or approved equal. Rodent screens shall be designed such that they can be adequately fastened to the CSP culvert, to the satisfaction of the Contract Administrator.

E46.8 Bedding and Initial Backfill

- E46.8.1 Bedding and backfill to a minimum of three hundred millimetres (300 mm) above the top of proposed culvert shall be Type 2 granular material in accordance with CW 2030.

E46.9 Remaining Backfill

- E46.9.1 Backfill beyond three hundred millimetres (300 mm) above the top of proposed culvert (to the underside of the pavement structure) shall be repurposed existing embankment material or Type 2 granular material in accordance with CW 2030. If Type 2 granular material is selected, extend clay seals at each end to underside of proposed pavement structure.

E46.10 Clay Seal

- E46.10.1 Impervious clay in accordance with CW 3310 and as accepted by the Contract Administrator.

E46.11 Geotextile

- E46.11.1 Non-woven geotextile shall be in accordance with CW 3130.

E46.12 Rock Apron

- E46.12.1 Rock shall be random stone riprap in accordance with CW 3615.

E46.13 Grout (Culvert Abandonment)

- E46.13.1 Flowable cement stabilized fill in accordance with CW 3610.

CONSTRUCTION METHODS

E46.14 Temporary Water Control

- E46.14.1 The Contractor shall install, operate, and maintain temporary water control measures (e.g., cofferdams, pump-arounds, or bypass channels) to isolate the work zone. All water control measures must receive approval from the Contract Administrator prior to activation.
- E46.14.2 The excavation trench shall be kept dry and free of standing or flowing water during all bedding placement, pipe laying, and compaction operations. The Contractor shall handle all discharged water in compliance with environmental regulations, utilizing silt bags or settling basins to prevent sediment loading into adjacent park waterways.

E46.15 Installation of Culvert

- E46.15.1 Excavation, installation of the CSP, and backfilling shall be in accordance with CW 2030 and 3610.

E46.16 Plugging and Abandonment of Existing Culvert

- E46.16.1 Plug and grout existing culvert in accordance with CW 3610. Cut back existing culvert by one and half metres (1.5 m) prior to abandoning and finish side slopes with clay seal and rock riprap in accordance with Contract Drawings.

MEASUREMENT AND PAYMENT

E46.17 Corrugated Steel Pipe (CSP)

- E46.17.1 Notwithstanding CW 3610, supply and installation of the CSP culvert will not be measured and will be paid for at the Contract Lump Sum Price for “one thousand millimetre [1,000 mm] Diameter Culvert,” which price shall be payment in full for performing all operations herein described and all other items incidental to the Work included in this Specification and accepted by the Contract Administrator, including, but not limited to supply and installation of the new one thousand millimetre (1,000 mm) diameter CSP culvert, including couplers, fittings, rodent screens, temporary water control design and implementation, bedding, backfill, and ancillary works, as well as the partial demolition, complete plugging, grouting, and abandonment of the existing CSP culvert between Lake 4-4 and Lake 4-8.

E47. WEIGH SCALE REMOVAL AND ABANDONMENT

DESCRIPTION

E47.1 General

- E47.1.1 This Specification covers the decommissioning, demolition, removal, drainage modification, backfilling, surface restoration, and abandonment of the existing weigh scale structure, and associated approach slabs located within Kilcona Park.

E47.2 Scope

- E47.2.1 The Work to be completed includes decommissioning, dismantling, and disposal of all mechanical, electrical, and structural scale components and associated approach slabs. Demolition and removal of the reinforced concrete grade beams to a minimum depth of one metre (1.0 m) below the final grade, core drilling drainage holes through the remaining weigh scale floor slab to prevent sub-surface entrapment, supplying, placing, and compacting granular backfill within the remaining pit void up to the final proposed grade.

- E47.2.2 Refer to the available Record Drawings appended to this Tender.

E47.3 Referenced Standard Construction Specifications

- (a) CW 2030 – Excavation, Bedding and Backfill.

MATERIALS

E47.4 Granular Backfill

- E47.4.1 Granular shall be Type 1 or Type 2 material in accordance with CW 2030 to the underside of the proposed pavement structure or three hundred millimetres (300 mm) below final grade (if no pavement structure above).

TOOLS AND EQUIPMENT

E47.5 Concrete Drilling and Cutting Equipment

- E47.5.1 Drilling of the weigh scale floor slab shall be executed using a heavy-duty, diamond-tipped core drill rig capable of cleanly cutting through reinforced concrete and rebar without damaging the surrounding structural integrity of the remaining slab.
- E47.5.2 Grade beam demolition shall be performed using diamond wire saws, track-mounted concrete saws, or excavator-mounted hydraulic breakers. The use of drop-weight breakers or high-impact blasting is strictly prohibited.

E47.6 Compaction Equipment

- E47.6.1 Mechanical compaction shall be executed using vibratory plate compactors, rollers, or smooth-drum vibratory rollers calibrated to achieve the specified densities within the restricted confines of the weigh scale void without inducing damaging vibrations to adjacent utilities or structures.

CONSTRUCTION METHODS

E47.7 Weigh Scale Demolition and Abandonment

- E47.7.1 Prior to the commencement of any physical demolition, verify and document that all electrical power feeds, data lines, and utility connections to the weigh scale structure have been safely disconnected, capped, and isolated in accordance with the utility authorities having jurisdiction.
- E47.7.2 Dismantle and remove the existing steel weigh scale deck, load cells, mechanical linkages, wiring, and all associated hardware. All components shall be disposed of by the Contractor at an appropriate facility.
- E47.7.3 Demolish and dispose of the existing concrete approach slabs.
- E47.7.4 Establish a saw-cut line in accordance with the Drawings, at the interior northwest and southwest corners of the weigh scale to completely isolate the west wall (shown in grey) from the north and south walls (shown in red) during demolition. The saw-cut line shall be to a depth of one metre (1.0 m) below the final proposed finished grade.
- E47.7.5 Structural concrete on the north, south, and east walls shall be methodically demolished and broken down into manageable pieces using mechanical means approved by the contract administrator.
- E47.7.6 The west concrete weigh scale wall (shown in grey) shall remain completely undisturbed. If any portion of the north wall is spalled, cracked, or structurally compromised due to the Contractor's operations, it shall be repaired or replaced to a structurally sound state by the Contractor at their sole expense to the satisfaction of the Contract Administrator.
- E47.7.7 To prevent the accumulation of sub-surface water against the remaining concrete floor slab and walls, drainage must be established by core-drilling drainage holes (fifty millimetre [50 mm] diameter) through the entire thickness of the concrete floor slab, as detailed on the Drawings.
- E47.7.8 Granular lifts immediately adjacent to the intact west wall shall be compacted using walk-behind vibratory plate compactors or mechanical hand-held tampers.
- E47.7.9 The use of heavy, ride-on smooth drum rollers or heavy vibratory equipment within one metre (1.0 m) of the intact west wall is strictly prohibited to prevent excessive lateral earth pressures and dynamic loading from inducing structural deflection or tilting of the wall.
- E47.7.10 All granular backfill layers shall be compacted to a minimum of ninety-five percent (95%) of the Standard Proctor Density in accordance with CW 2030.

MEASUREMENT AND PAYMENT

E47.8 Weigh Scale Demolition and Abandonment

- E47.8.1 The weigh scale demolition and abandonment will not be measured and will be paid for at the Contract Lump Sum Price for "Weigh Scale Demolition and Abandonment" which price shall be payment in full for performing all operations herein described and all other items incidental to the Work included in this Specification and accepted by the Contract Administrator.

E48. WORKING IN CLOSE PROXIMITY TO GAS INFRASTRUCTURE

DESCRIPTION

- E48.1 While working in close proximity to gas infrastructure, all procedures and precautions outlined in the Appendix 'F' – Safe Excavation and Safety Watch Guideline manual, as well as any supplemental direction from Manitoba Hydro gas response letter contained in Appendix 'E', must be adhered to. Ensure that all locates and clearances are current and have been received and understood prior to Construction.

MEASUREMENT AND PAYMENT

- E48.2 Hydro excavation to locate and verify gas infrastructure as typically required by Manitoba Hydro will be considered incidental to the Work.
- E48.3 Any costs associated performing Safety Watches will be considered incidental to the Work.

E49. PROTECTION OF GEOMATICS INFRASTRUCTURE

- E49.1 The Contractor is to acquire locates from the City of Winnipeg Geomatics Branch prior to construction activity. If any permanent infrastructure is to be disturbed, the Contractor is to notify the Contract Administrator for documentation.

E50. SOFT EXCAVATION TO EXPOSE UNDERGROUND UTILITIES

DESCRIPTION

- E50.1 This Specification covers the soft excavation to expose underground utilities to determine the depth of the underground utility and whether it will interfere with installation of proposed Works on the Site.
- E50.2 These underground utilities include, but are not limited to, City of Winnipeg Traffic Signal cables, Manitoba Hydro gas mains and services, Manitoba Hydro cables/duct banks, BellMTS cables/duct banks, existing sewers, existing watermain and feeder mains.
- E50.3 Supplemental direction for working in close proximity to Manitoba Hydro gas mains and services are discussed specifically in E34 and Appendix 'E'.

MATERIALS

- E50.4 Backfill Material
- (a) Backfill material for backfill of shafts after hydro-excavation has been completed shall consist of sand in accordance with Specification CW 2030.

CONSTRUCTION METHODS

- E50.5 Prior to commencement of any construction Works adjacent to underground utilities, the Contractor shall use soft digging or hand excavation to expose underground utilities.
- E50.6 Once the elevation of the top of pipe or duct has been determined the resulting excavation shall be backfilled with bedding sand to the elevation of existing ground.

MEASUREMENT AND PAYMENT

- E50.7 Soft excavation to expose underground utilities will be considered incidental to the Work. No measurement and payment will be made within this section.

E51. STREETLIGHT RELOCATION

DESCRIPTION

- E51.1.1 The work shall consist of the supply of all supervision, labour, insurance, tools, backfill and equipment (and their maintenance), transportation, mobilization, and de-mobilization, and warranty of workmanship as required to relocate existing street light poles as shown in the Construction Drawings.

QUALIFICATIONS

- E51.1.2 The Contractor's Crew Foreman, installers and other key Contractor's Personnel shall possess the necessary certification, licensing, training, experience and familiarity with safety rules, procedures, and hazards relating to the Work.

CONSTRUCTION METHODS

- E51.1.3 The Contractor shall work with the City of Winnipeg Parks Department and Manitoba Hydro as required to de-energize and lock out the existing streetlights on Zone 1 Harbourview Entrance Road prior to relocation.
- E51.1.4 The Contractor shall install a new concrete streetlight base as per SCD-652 or SCD 652B in the location shown in the Construction Drawings or as marked out by the Contract Administrator.
- E51.1.5 The Contractor shall furnish all labour, supplies and materials necessary for the removal of the street light pole from the existing base. Care shall be taken to preserve the luminaire, pole and bracket. Inspect the equipment and reinstall if in good working condition on the new concrete streetlight base. Notify the Contract Administrator immediately if any portion of the existing luminaire, pole, or bracket are damaged or faulty.
- E51.1.6 The Contractor shall level the street light pole in all four (4) directions. Leveling shims may be used.
- E51.1.7 Tightening of bolts shall be performed in a manner that brings the surfaces up evenly.
- E51.1.8 The Contractor shall realign and relocate the existing conduit and cable to the new streetlight and furnish all labour, supplies and material necessary to rewire the luminaire.
- E51.1.9 The Contractor shall remove and dispose of the existing concrete base to a minimum depth of one metre (1 m) below final grade.
- E51.1.10 The Contractor shall repair or replace any damaged materials, devices or fixtures to restore the luminaire to working order.
- E51.1.11 The contractor is responsible for having all final connections reviewed and approved as per local utility jurisdiction and that includes paying for any applications or permit fees as part of the approval. Provide the construction administrator with all documentation after final installation and associated approvals.

MEASUREMENT AND PAYMENT

- E51.1.12 The installation of the new streetlight base, relocation of the streetlight, removal of the existing concrete base and all necessary associated labour, supplies and materials will be paid for at the Contract Lump Sum Price for "Streetlight Relocation" which shall be payment in full for all operations herein described and all other items incidental to the Work included in this Specification and accepted by the Contract Administrator.