

THE CITY OF WINNIPEG

TENDER

TENDER NO. 166-2025

ABINOJII MIKANAH WESTBOUND - RUBBLIZATION AND MILL AND FILL

The City of Winnipeg Tender No. 166-2025

Template Version: 2025 01 01- Const Road Works

PART A - BID SUBMISSION Form A: Bid/Proposal

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 ABINOJII MIKANAH WESTBOUND – RUBBLIZATION AND MILL AND FILL

B2. SUBMISSION DEADLINE

- B2.1 The Submission Deadline is 12:00 noon Winnipeg time, April 9, 2025.
- 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, the Bidder may view the Site without making an appointment.
- B3.2 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 D6.1.
- 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 the confidential information shall not apply to information which:
 - (a) was known to the Bidder before receipt hereof; or
 - (b) becomes publicly known other than through the Bidder; or
 - (c) is disclosed pursuant to the requirements of a governmental authority or judicial order.

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 D6.

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;
 - (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;
 - (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;
 - (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.

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- 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 D39. Any such costs shall be determined in accordance with D39.
- 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 C3.2, 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:

- 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;
 - 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; and
 - (b) be fully capable of performing the Work required to be in strict accordance with the terms and provisions of the Contract; and
 - (c) have a written workplace safety and health program if required pursuant to The Workplace Safety and Health Act (Manitoba);
 - (d) have completed the Accessible Customer Service online training required by the Accessibility for Manitobans Act (AMA) (see B13.5 and D8)
- 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 on the Information Connection page at The City of Winnipeg, Corporate Finance, Purchasing Division website at http://www.winnipeg.ca/matmgt/.

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- B13.5 Further to B13.3(d), the Bidder acknowledges they and all Subcontractors have obtained training required by the Accessibility for Manitobans Act (AMA) available at Accessibility Training 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 Form_G1_Bid_Bond_&_Agreement_to_Bond.
- 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.
 - (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;
 - (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 n ot 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 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 ^ 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 If funding for the Work is provided to the City of Winnipeg by the Government of Manitoba and/or the Government of Canada, Bidders are advised that the terms of D39 shall immediately take effect upon confirmation of such funding, regardless of when funding is confirmed.
- B19.5 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.
- B19.5.1 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.
- B19.6 As noted in D3 and identified in Form B: Prices, the Work of Part 2 will be contingent upon the Province approving funding for the Work. If sufficient funding for Part 2 Work is not approved by the Province the City shall have the right to eliminate all or any portion of Part 2 Work in accordance with D2.

PART C - GENERAL CONDITIONS

CO. GENERAL CONDITIONS

- C0.1 The *General Conditions for Construction* (Revision 2020-01-31) are applicable to the Work of the Contract.
- C0.1.1 The General Conditions for Construction are available on the Information Connection page at The City of Winnipeg, Corporate Finance, 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. FORM OF CONTRACT DOCUMENTS

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

D3. SCOPE OF WORK

- D3.1 The Work to be done under the Contract shall consist of:
 - (a) Concrete Pavement Rubblization, Granular Sandwich, Shoulder Construction, and Asphalt Overlay
 - (i) Abinojii Mikanah Westbound from River Road to St. Mary's Road
 - (b) Asphalt Mill and Fill
 - (i) Abinojii Mikanah Westbound from Dakota Street to St. Mary's Road
- D3.2 The major components of the Work are as follows:
 - (a) Concrete Pavement Rubblization, Granular Sandwich, Shoulder Construction, and Asphalt Overlay
 - (i) Planing of asphalt overlay (100mm average)
 - (ii) Excavation for shoulder construction
 - (iii) Compaction of shoulder sub-grade
 - (iv) Placement of geotextile and geogrid
 - (v) Placement Type 3 Asphalt (one lift of 50mm) for temporary travel lane surface
 - (vi) Placement of 50mm and 100mm Granular A sub-base
 - (vii) Placement of 20mm Granular A base course
 - (viii) Rubblization of existing concrete pavement (200mm thick)
 - (ix) Removal of 200mm Concrete and placement of 50mm sub-base
 - (x) Construct barrier curb with integral splash strip (125mm height)
 - (xi) Placement of SP-2 asphaltic base course (two lifts 70mm and 50mm) for mainline pavement
 - (xii) Placement of SP-1 asphalt for (one lift of 50mm) for mainline pavement
 - (xiii) Placement of SP asphalt for shoulders (one lift of 50mm SP-1 and one lift of 50mm SP-2)
 - (xiv) Removal of existing catch basins
 - (xv) Removal and abandonment of existing CSP catch basin leads
 - (xvi) Installation of 150mm sub-drain and 150mm drainage pipe
 - (xvii) Supply and installation of flexible w-beam guardrail
 - (xviii) Construction of 100mm concrete sidewalk for bus stops
 - (xix) Grading of side slopes using suitable site material
 - (xx) Placement of grouted stone rip rap.
 - (xxi) Placement of top soil and hydro-seeding

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 - (b) Asphalt Mill and Fill
 - (i) Milling existing asphalt (50mm for mainline and 100mm in the intersections)
 - (ii) Full depth concrete patching (200mm reinforced)
 - (iii) Adjustment of pavement structures
 - (iv) Curb renewal where required
 - (v) Renewal of monolithic median and monolithic curb and sidewalk
 - (vi) Installation of detectable warning tiles
 - (vii) Preparation of existing granular shoulders
 - (viii) Asphalt paving of granular shoulders (50mm Type 1A)
 - (ix) Placement of SP-1 asphalt for lanes (60mm average)
 - (x) Placement of SP-1 asphalt for intersections (120mm average)
 - (c) Transit Stop Improvement at Southbound St. Mary's Rd and Avalon Rd
 - (i) Boulevard excavation and grading
 - (ii) Installation of 100mm concrete sidewalk
 - (iii) Installation of 125mm reinforced concrete sidewalk for non-heated shelter
 - (iv) Placement of sod

D4. SITE INVESTIGATION DUE DILIGENCE AND RISK

- D4.1 Notwithstanding C3.1, the Contractor acknowledges that the site investigation reports and other site information included in this Tender have been provided to it and may be relied upon by the Contractor to the extent that the Contractor uses Good Industry Practice in interpreting such report(s) and site information and carries out the Work in accordance with Good Industry Practice based upon such report(s) and the information contained in them and such other site information. In the event that a site condition related to:
 - (a) the location of any utility which can be determined from the records or other information available at the offices of any public authority or person, including a municipal corporation and any board or commission thereof, having jurisdiction or control over the utility;
 - (b) the Site conditions, including but not limited to subsurface hazardous materials or other concealed physical conditions;
 - (c) the location, nature, quality or quantity of the materials to be removed or to be employed in the performance of the Work;
 - (d) the nature, quality or quantity of the Plant needed to perform the Work;
 - (e) all matters concerning access to the Site, power supplies, location of existing services, utilities or materials necessary for the completion of the Work; and
 - (f) all other matters which could in any way affect the performance of the Work;

that could not have been "properly inferable", "readily apparent" and readily discoverable" using Good Industry Practice by the Contractor, results in additional Work which is a direct result of this newly discovered site condition, such additional Work will be considered by the City under Changes in Work.

D5. DEFINITIONS

- D5.1 When used in this Tender:
 - (a) "Supply Chain Disruption" means an inability by the Contractor to obtain goods or services from third parties necessary to perform the Work of the Contract within the schedule specified therein, despite the Contractor making all reasonable commercial efforts to procure same. Contractors are advised that increased costs do not, in and of themselves, amount to a Supply Chain Disruption;

D6. CONTRACT ADMINISTRATOR

D6.1 The Contract Administrator is WSP, represented by:

Kelly Groff, P.Eng. Lead Transportation Engineer

Telephone No. 204 259-1527 Email Address Kelly.Groff@wsp.com

D6.2 At the pre-construction meeting, Kelly Groff, P.Eng. will identify additional personnel representing the Contract Administrator and their respective roles and responsibilities for the Work.

D7. CONTRACTOR'S SUPERVISOR

- D7.1 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.
- D7.2 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 D7.1 or an alternate can be contacted twenty-four (24) hours a day to respond to an emergency.

D8. ACCESSIBLE CUSTOMER SERVICE REQUIREMENTS

- D8.1 The Accessibility for Manitobans Act (AMA) imposes obligations on The City of Winnipeg to provide accessible customer service to all persons in accordance with the Customer Service Standard Regulation ("CSSR") to ensure inclusive access and participation for all people who live, work or visit Winnipeg regardless of their abilities.
- D8.1.1 The Contractor agrees to comply with the accessible customer service obligations under the CSSR and further agrees that when providing the Goods or Services or otherwise acting on the City of Winnipeg's behalf, shall comply with all obligations under the AMA applicable to public sector bodies.
- D8.1.2 The accessible customer service obligations include, but are not limited to:
 - (a) providing barrier-free access to goods and services;
 - (b) providing reasonable accommodations;
 - (c) reasonably accommodating assistive devices, support persons, and support animals;
 - (d) providing accessibility features e.g. ramps, wide aisles, accessible washrooms, power doors and elevators;
 - (e) inform the public when accessibility features are not available;
 - (f) providing a mechanism or process for receiving and responding to public feedback on the accessibility of all goods and services; and
 - (g) providing adequate training of staff and documentation of same.

D9. UNFAIR LABOUR PRACTICES

- D9.1 Further to C3.2, the Contractor declares that in bidding for the Work and in entering into this Contract, the Contractor and any proposed Subcontractor(s) conduct their respective business in accordance with established international codes embodied in United Nations Universal Declaration of Human Rights (UDHR) https://www.un.org/en/about-us/universal-declaration-of-human-rights International Labour Organization (ILO) https://www.ilo.org/global/lang-en/index.htm conventions as ratified by Canada.
- D9.2 The City of Winnipeg is committed and requires its Contractors and their Subcontractors, to be committed to upholding and promoting international human and labour rights, including

fundamental principles and rights at work covered by ILO eight (8) fundamental conventions and the United Nations Universal Declaration of Human Rights which includes child and forced labour.

- D9.3 Upon request from the Contract Administrator, the Contractor shall provide disclosure of the sources (by company and country) of the raw materials used in the Work and a description of the manufacturing environment or processes (labour unions, minimum wages, safety, etc.).
- D9.4 Failure to provide the evidence required under D9.3, may be determined to be an event of default in accordance with C18.
- D9.5 In the event that the City, in its sole discretion, determines the Contractor to have violated the requirements of this section, it will be considered a fundamental breach of the Contract and the Contractor shall pay to the City a sum specified by the Contract Administrator in writing ("Unfair Labour Practice Penalty"). Such a violation shall also be considered an Event of Default, and shall entitle the City to pursue all other remedies it is entitled to in connection with same pursuant to the Contract.
- D9.5.1 The Unfair Labour Practice Penalty shall be such a sum as determined appropriate by the City, having due regard to the gravity of the Contractor's violation of the above requirements, any cost of obtaining replacement goods/ services or rectification of the breach, and the impact upon the City's reputation in the eyes of the public as a result of same.
- D9.5.2 The Contractor shall pay the Unfair Labour Practice Penalty to the City within thirty (30) Calendar Days of receiving a demand for same in accordance with D9.5. The City may also hold back the amount of the Unfair Labour Practice Penalty from payment for any amount it owes the Contractor.
- D9.5.3 The obligations and rights conveyed by this clause survive the expiry or termination of this Contract, and may be exercised by the City following the performance of the Work, should the City determine, that a violation by the Contractor of the above clauses has occurred following same. In no instance shall the Unfair Labour Practice Penalty exceed the total of twice the Contract value.

D10. FURNISHING OF DOCUMENTS

D10.1 Upon award of the Contract, the Contractor will be provided with 'issued for construction' Contract Documents electronically, including Drawings in PDF formal only.

SUBMISSIONS

D11. AUTHORITY TO CARRY ON BUSINESS

D11.1 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.

D12. SAFE WORK PLAN

- D12.1 The Contractor shall provide the Contract Administrator with a Safe Work Plan at least five (5) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract Documents, if applicable.
- D12.2 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

D12.3 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.

D13. INSURANCE

- D13.1 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 an additional insured, with a cross-liability clause, such liability policy to also contain contractual liability, unlicensed motor vehicle liability, non-owned automobile liability and products and completed operations, to remain in place at all times during the performance of the Work and throughout the warranty period;
 - (b) Automobile Liability Insurance covering all motor vehicles, owned and operated and used or to be used by the Contractor directly or indirectly in the performance of the Work. The Limit of Liability shall not be less than \$2,000,000 inclusive for loss or damage including personal injuries and death resulting from any one accident or occurrence;
 - (c) an all risks Installation Floater carrying adequate limits to cover all supplies and/or materials intended to enter into and form part of any installation.
 - (d) Property insurance for all mobile offices, portable toilets, machinery and equipment.
- D13.2 Deductibles shall be borne by the Contractor.
- D13.3 All Subcontractors performing work on the Project shall provide the Contractor with evidence of insurance as outlined in D13.1 (a) and (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 the same prior to the commencement of any Work by the Subcontractor.
- D13.4 All policies shall be taken out with insurers licensed to carry on business in the Province of Manitoba.
- D13.5 The Contractor shall provide the City Solicitor with a certificate(s) of insurance, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Work but in no event later than the date specified in the C4.1 for the return of the executed Contract Documents, as applicable.
- D13.6 The Contractor shall not cancel, materially alter, or cause each policy to lapse without providing at least thirty (30) Calendar Days prior written notice to the Contract Administrator.

D14. CONTRACT SECURITY

- D14.1 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, Form H1 Performance Bond in the amount of fifty percent (50%) of the Contract Price; and
 - (b) a labour and material payment bond of a company registered to conduct the business of a surety in Manitoba Form_H2_Labour_and_Material_Bond, in an amount equal to fifty percent (50%) of the Contract Price.
- D14.1.1 Where the contract security is a performance bond, it may be submitted in hard copy or digital format. If submitted in digital format the contract security must meet the following criteria:
 - (a) the version submitted by the Contractor must have valid digital signatures and seals;

- (b) the version submitted by the Contractor must be verifiable by the City with respect to the totality and wholeness of the bond form, including: the content; all digital signatures and digital seals; with the surety company, or an approved verification service provider of the surety company.
- (c) the version submitted must be viewable, printable and storable in standard electronic file formats compatible with the City, and in a single file. Allowable formats include pdf.
- (d) the verification may be conducted by the City immediately or at any time during the life of the bond and at the discretion of the City with no requirement for passwords or fees.
- (e) the results of the verification must provide a clear, immediate and printable indication of pass or fail regarding D14.1(b).
- D14.1.2 Digital bonds failing the verification process will not be considered to be valid and may be determined to be an event of default in accordance with C18.1. If a digital bond fails the verification process, the Contractor may provide a replacement bond (in hard copy or digital format) within seven (7) Calendar Days of the City's request or within such greater period of time as the City in their discretion, exercised reasonably, allows.
- D14.1.3 Digital bonds passing the verification process will be treated as original and authentic.
- D14.2 The Contractor shall provide the Contract Administrator identified in D6 with the required performance and labour and material payment bonds within seven (7) Calendar Days of notification of the award of the Contract by way of an award letter and prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract Documents, if applicable.
- D14.3 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 D14.1(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.

D15. SUBCONTRACTOR LIST

D15.1 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 ten (10) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in the C4.1 for the return of the executed Contract Documents, if applicable.

D16. EQUIPMENT LIST

D16.1 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 preconstruction meeting, or at least ten (10) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in the C4.1 for the return of the executed Contract Documents, if applicable.

D17. DETAILED WORK SCHEDULE

D17.1 The Contractor shall provide the Contract Administrator with a detailed work schedule at least ten (10) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in the General Conditions for the return of the executed Contract Documents, as applicable.

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- D17.2 The detailed work schedule shall consist of the following:
 - (a) a Gantt chart for the Work showing the Critical Path, and all acceptable to the Contract Administrator.
- D17.3 Further to D17.2(a), the Gantt chart shall show the time on a weekly basis, required to carry out the Work of each trade, or specification division. The time shall be on the horizontal axis, and the type of trade shall be on the vertical axis.

D18. REQUIREMENTS FOR SITE ACCESSIBILITY PLAN

- D18.1 The Contractor shall provide the Contract Administrator with an Accessibility Plan at least five (5) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract Documents, if applicable.
- D18.2 The Accessibility Plan shall demonstrate how the Contractor will accommodate the safe passage of pedestrians and cyclists in accordance with the Manual of Temporary Traffic Control, the Contract Drawings, Staging Plans, and Streets By-Law No. 1481/77 at all times for the duration of the Construction. Unless noted in the Contract, the Accessibility Plan must include a written plan for the following:
 - (a) How the Contractor will maintain at least one crossing in each direction for each intersection (one north/south crosswalk and one east/west crosswalk).
 - (b) How the Contractor will maintain access to bus stops within the site.
 - (c) How the Contractor will maintain cycling facilities.
 - (d) How the Contractor will maintain access to residents and businesses unless otherwise noted in the Contract.
 - (e) Any required detour signage at adjacent crossings to facilitate sidewalk or active transportation pathway closures.
- D18.3 The Accessibility Plan may also include figures, sketches, or drawings to demonstrate the proposed plan.
- D18.4 The Accessibility Plan shall include written details on how the Contractor intends to review, maintain, and document all items related to the Accessibility Plan on-site during Construction, including, but not limited to:
 - (a) Signage
 - (b) Temporary Ramping
 - (c) Transit Stops
 - (d) Detour Signage
- D18.5 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.
- D18.6 Any changes to the Accessibility Plan must be approved by the Contract Administrator.
- D18.7 Upon request from the Contract Administrator, the Contractor shall provide records demonstrating that the site has been maintained.
- D18.8 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:

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 - (a) First Offence A warning will be issued and documented in the weekly or bi-weekly site meeting.
 - (b) Second Offence A field instruction to immediately correct the site will be issued by the Contract Administrator.
 - (c) Third and subsequent Offences A pay reduction will be issued in the amount of \$250.00 per instance and per day.

SCHEDULE OF WORK

D19. COMMENCEMENT

- D19.1 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.
- D19.2 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 D11;
 - (ii) evidence of the workers compensation coverage specified in C6.15;
 - (iii) the twenty-four (24) hour emergency response phone number specified in D7.2.
 - (iv) the Safe Work Plan specified in D12;
 - (v) evidence of the insurance specified in D13;
 - (vi) the contract security specified in D13.1;
 - (vii) the subcontractor list specified in D15;
 - (viii) the equipment list specified in D16;
 - (ix) the detailed work schedule specified in D17;
 - (x) construction method statement for working near the feedermain and aqueduct in E20;
 - (xi) the Requirements for Site Accessibility Plan specified in D18;
 - (xii) the direct deposit application form specified in D33;
 - (xiii) the detailed schedule for the completion of St. Mary's Rd and Dakota St intersections specified in E6; and
 - (xiv) temporary traffic signage drawings specified in E6.
 - (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.
- D19.3 The Contractor shall not commence the Work on the Site before June 27, 2025, and shall commence the Work on Site no later than July 7, 2025, as directed by the Contract Administrator and weather permitting.

D20. WORKING DAYS

- D20.1 Further to C1.1(tt);
- D20.1.1 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.
- D20.1.2 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.
- D20.1.3 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.

D21. RESTRICTED WORK HOURS

- D21.1 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 2000 hours and 0700 hours, or on Saturdays, Sundays, Statutory Holidays and or Civic Holidays.
- D21.2 The following work hour restrictions shall also apply:

D22. WORK BY OTHERS

- D22.1 Further to C6.25, the Contractor's attention is directed to the fact that other Contractors, the p ersonnel of Utilities and the staff of the City may be working within the project limit, approach roadway, adjacent roadways or right-of-way. The activities of these agencies may coincide with the Contractors execution of work and it will be the Contractor's responsibility to cooperate to the fullest extent with other personnel working in the area, and such cooperation is an obligation of the Contractor under the terms of Contract.
- D22.2 Work by others on or near the Site will include but not necessarily be limited to:
 - (a) Traffic Services Provision of sign clamps, placement of signs related to detours outside of the project limits.
 - (b) Winnipeg Transit Provision of temporary portable transit stop signs. The Contractor shall install the clamps for the stops and the cost is incidental to the Contract.
 - (c) Water and Waste Department Attendance at Feedermain and Aqueduct orientation, pre and post construction inspection of sensitive pipe appurtenances.
 - (d) Traffic Signals They will ensure the abandoned section of the tie-line is severed prior to any excavation. Provisions for traffic loop replacement.
 - (e) Madaxo Red light camera at westbound River Rd.
- D22.3 Further to D22.1 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 D22.2 or additional parties, in their construction schedule as per D17 and accommodate the necessary area on Site required for the Work by Others to complete the Work.

D23. SEQUENCE OF WORK

- D23.1 Further to C6.1, the sequence of work shall be as follows:
- D23.1.1 The Work shall be divided into five (5) phases. Each Phase shall be subdivided into stages. Stages are further subdivided into major items of work.
- D23.1.2 **Phase I** Mill and fill of Abinojii Mikanah and St. Mary's Road intersection.
 - (a) Stage I Concrete work in northeast and southwest corners
 - (i) Renewal of monolithic median slab;
 - (ii) Renewal of monolithic curb and sidewalk;
 - (iii) Installation of detectable warming tiles;
 - (iv) Adjustments to pavement structures and appurtenances;
 - (v) Curb removals, installations and renewals;
 - (vi) Placing topsoil and finish grading;
 - (b) Stage II Concrete work in northwest and southeast corners
 - (i) Removal, installation and renewal of monolithic median slab;
 - (ii) Renewal of monolithic curb and sidewalk;

- (iii) Installation of detectable warming tiles;
- (iv) Adjustments to pavement structures and appurtenances;
- (v) Curb removals, installations and renewals;
- (vi) Placing topsoil and finish grading;
- (c) Stage III Concrete work in medians
 - (i) Removal of monolithic median slab;
 - (ii) Construction of pavement slab;
 - (iii) Installation of concrete bullnose;
 - (iv) Installation of detectable warning tiles;
 - (v) Adjustments to pavement structures and appurtenances;
 - (vi) Curb removals, installations and renewals;
 - (vii) Placing topsoil and finish grading;
- (d) Stage IV Mill and fill intersection, dividing into four major steps each with the components listed below.
 - (i) Mill existing asphalt;
 - (ii) Install riser rings on manholes as required;
 - (iii) Pave one or two bottom lifts of SP2;
 - (iv) Pave top lift of SP1.
- (e) Phase I shall be completed at the onset of the project. No other phase shall commence until the completion of Phase I.
- D23.1.3 Phase II Pavement renewal and shoulder construction of westbound Abinojii Mikanah from River Road to St. Mary's Road.
 - (a) **Stage I** Construction of outside shoulder and temporary lane.
 - (i) Removal of concrete curb and gutter;
 - (ii) Excavation of outside shoulder and installation of geotextile material;
 - (iii) Removal of existing catch basins and leads;
 - (i) Mill existing asphalt to concrete pavement to facilitate rubblizing pavement under temporary lane;
 - (ii) Rubblize existing concrete pavement under temporary lane;
 - (iii) Sub-grade compaction and placement of geotextile;
 - (iv) Placing and grading 100mm and 50mm sub-base;
 - (v) Paving temporary asphalt lane (to be left in place permanently).
 - (b) **Stage II** Construction of inside shoulder and main line paving.
 - (i) Removal of concrete curb and gutter;
 - (ii) Excavation of inside shoulder, compaction of subgrade, and installation of geotextile material;
 - (iii) Removal of existing catch basins and abandoning existing leads;
 - (iv) Mill existing asphalt to concrete pavement (both main lanes);
 - (v) Rubblize existing concrete pavement;
 - (vi) Placing and grading 50mm sub-base;
 - (vii) Placing and grading base course;
 - (viii) Installation of subdrains;
 - (ix) Installation of curbs;
 - (x) Paving bottom lifts of main lanes and inside shoulder with SP2;
 - (xi) Paving top lift of main lanes and inside shoulder with SP1;
 - (xii) Construction of inside shoulder edge treatment; and
 - (xiii) Placing suitable site material and grading boulevard in median.

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 - (c) Stage III Paving of outside shoulder.
 - (i) Placing and grading base course;
 - (i) Installation of curbs and sidewalk;
 - (i) Paving bottom lifts of auxiliary and existing third lanes and outside shoulder with SP2;
 - (ii) Paving top lift of auxiliary and existing third lanes and outside shoulder with SP1;
 - (iii) Removal of existing guardrail and installation of new guardrail; and
 - (iv) Construction of inside shoulder edge treatment.
 - (d) Placing the topsoil and hydro seeding of all boulevard and median areas shall be completed following the construction of the asphaltic pavement.
- D23.1.4 Phase III Mill and fill of westbound Abinojii Mikanah from St. Mary's Road to Dakota Street.
 - (a) Stage I Acceleration, deceleration, left turn lane, gutter lane, and outside shoulder.
 - (i) Mill existing asphalt (approx. 50mm);
 - (ii) Slab replacement and partial slab patches;
 - (iii) Curb renewal;
 - (iv) Preparation of existing shoulder;
 - (v) Shoulder levelling course;
 - (vi) Adjustments to pavement structures and appurtenances;
 - (vii) Construction of asphalt shoulder (Type 1A); and
 - (viii) Paving asphalt overlay;
 - (b) Stage II Median and left turn lane.
 - (i) Mill existing asphalt (approx. 50mm);
 - (ii) Slab replacement and partial slab patches;
 - (iii) Curb renewal;
 - (iv) Placing topsoil and finish grading;
 - (v) Placing of hydro seed; and
 - (vi) Paving asphalt overlay.
 - (c) Phase III may be completed at the same time as Phase II and/or Phase IV upon review and approval of the Contractor's schedule, and the traffic management plan and required lane closures by the Contract Administrator.
- D23.1.5 Phase IV Mill and fill of Abinojii Mikanah and Dakota Street intersection.
 - (a) **Stage I** Mill and fill intersection, dividing into four major steps each with the components listed below.
 - (i) Mill existing asphalt;
 - (ii) Adjustments to pavement structures and appurtenances, if required (should occur prior to mill and fill works);
 - (iii) Pave one or two bottom lifts of SP2;
 - (iv) Pave top lift of SP1.
 - (b) Phase IV may be completed at the same time as Phase II and/or III upon review and approval of the Contractor's schedule, and the traffic management plan and required lane closures by the Contract Administrator.
- D23.1.6 Phase V Transit stop improvement at southbound St. Mary's Rd and Avalon Rd.
 - (a) Construction of 100mm sidewalk for Transit stop and 125mm reinforced sidewalk for non-heated shelter.
 - (b) Phase V may be completed at any time upon approval by Transit.

D24. CRITICAL STAGES

- D24.1 The Contractor shall achieve critical stages of the Work in accordance with the following r equirements:
 - (a) Critical Stage A Upon commencement of Phase I, the contractor shall complete Stage I, Stage II, and Stage III in ten (10) consecutive Working Days.
 - (b) Critical Stage B Phase I, Stage IV shall be completed in seven (7) consecutive Calender days with Steps 1 and 2 occurring first over a weekend.
 - (c) Critical Stage C Upon commencement of Phase III, the Contractor shall complete the work within twenty (20) consecutive Working Days.
 - (d) Critical Stage D Phase IV shall be completed within two (2) Calender Days and be on a Saturday and Sunday prior to August 29, 2025.
 - (i) Exclusive of pavement structure adjustments, if required.
- D24.2 When the Contractor considers the Work associated with the 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.
- D24.3 The date on which the Work has been accepted by the Contract Administrator as being completed to the requirements of the Contract is the date on which completion of the Critical Stage has been achieved.

D25. SUBSTANTIAL PERFORMANCE

- D25.1 The Contractor shall achieve Substantial Performance within Seventy (70) consecutive Working Days of the commencement of the Work as specified in D19.
- D25.2 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.
- D25.3 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.

D26. TOTAL PERFORMANCE

- D26.1 The Contractor shall achieve Total Performance within Seventy-Five (75) consecutive Working Days of the commencement of the Work as specified in D19.
- D26.2 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.
- D26.3 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.

D27. LIQUIDATED DAMAGES

- D27.1 If the Contractor fails to achieve Critical Stages, Substantial Performance or Total Performance in accordance with the Contract by the days fixed herein for same, the Contractor shall pay the City the following amounts per Working Day for each and every Working Day following the days fixed herein for same during which such failure continues:
 - (a) Critical Stage A Two Thousand dollars (\$2,000.00);
 - (b) Critical Stage B Two Thousand dollars (\$2,000.00);
 - (c) Critical Stage C Two Thousand dollars (\$2,000.00);
 - (d) Critical Stage D Two Thousand dollars (\$2,000.00);
 - (e) Substantial Performance Four Thousand dollars (\$4,000.00);
 - (f) Total Performance Two Thousand dollars (\$2,000.00).
- D27.2 The amounts specified for liquidated damages in D27.1 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.
- D27.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

D28. SUPPLY CHAIN DISRUPTION SCHEDULE DELAYS

- D28.1 The City acknowledges that the schedule for this Contract may be impacted by the Supply Chain Disruption. Commencement and progress of the Work shall be performed by the Contractor with due consideration to the delivery requirements and schedule identified in the Contract, in close consultation with the Contract Administrator.
- D28.2 If the Contractor is delayed in the performance of the Work by reason of the Supply Chain Disruption, the Work schedule may be adjusted by a period of time equal to the time lost due to such delay and costs related to such delay will be determined as identified herein.
- D28.3 A minimum of seven (7) Calendar Days prior to the commencement of Work, the Contractor shall declare whether a Supply Chain Disruption will affect the start date. The Contractor shall provide sufficient evidence that the delay is directly related to ordering of Material or Goods, production and/or manufacturing schedules or availability of staff as appropriate s.
- D28.4 For any delay related to Supply Chain Disruption and identified after Work has commenced, the Contractor shall within seven (7) Calendar Days of becoming aware of the anticipated delay declare the additional delay and shall provide sufficient evidence as indicated in D28.3. Failure to provide this notice will result in no additional time delays being considered by the City.
- D28.5 The Work schedule, including the durations identified in D21 to D26 where applicable, will be adjusted to reflect delays accepted by the Contract Administrator. No additional payment will be made for adjustment of schedules except where seasonal work, not previously identified in the Contract, is carried over to the following construction season.
- D28.6 Where Work not previously identified is being carried over solely as a result of delays related to Supply Chain Disruption, as confirmed by the Contract Administrator, the cost of temporary works to maintain the Work in a safe manner until Work recommences, will be considered by the Contract Administrator. Where the Work is carried over only partially due to Supply Chain Disruption, a partial consideration of the cost of temporary works will be considered by the Contract Administrator.
- D28.7 Any time or cost implications as a result of Supply Chain Disruption and in accordance with the above, as confirmed by the Contract Administrator, shall be documented in accordance with C7.

D29. SCHEDULED MAINTENANCE

- D29.1 The Contractor shall perform the following scheduled maintenance in the manner and within the time periods required by the Specifications:
 - (a) Seed Maintenance as specified in CW 3520;
 - (b) Reflective Crack Maintenance as specified in CW 3250.
- D29.2 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

D30. JOB MEETINGS

- D30.1 Regular weekly job meetings will be held at Site. These meetings shall be attended by a minimum of one representative of the Contract Administrator, the City and one representative of the Contractor. Each representative shall be a responsible person capable of expressing the position of the Contract Administrator, the City and the Contractor respectively on any matter discussed at the meeting including the Work schedule and the need to make any revisions to the Work schedule. The progress of the Work will be reviewed at each of these meetings.
- D30.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever they deem it necessary.

D31. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)

D31.1 Further to C6.26, the Contractor shall be the Prime Contractor and shall serve as, and have the duties of the Prime Contractor in accordance with The Workplace Safety and Health Act (Manitoba).

D32. THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA) – QUALIFICATIONS

D32.1 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.

MEASUREMENT AND PAYMENT

D33. PAYMENT

D33.1 Further to C12, the City shall make payments to the Contractor by direct deposit to the Contractor's banking institution, and by no other means. Payments will not be made until the Contractor has made satisfactory direct deposit arrangements with the City. Direct deposit application forms are at https://winnipeg.ca/finance/files/Direct_Deposit_Form.pdf.

D34. FUEL PRICE ADJUSTMENT

- D34.1 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) x Q x FF; and
 - (b) where the price of fuel has decreased ((CFI/BFI)-0.85) x Q x FF; where
 - (i) BFI = base fuel index

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 - (ii) CFI = current fuel index
 - (iii) FF = fuel factor
 - (iv) Q = monetary value of Work applied in the calculation.
- D34.1.1 Eligible Work will be determined in accordance with D34.5.
- D34.1.2 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 <u>Statistics Canada, Table 18-10-0001-01</u>. The BFI is a blended rate based on 15% regular unleaded gasoline at self-service filling stations and 85% diesel fuel at self-service filling stations.
- D34.1.3 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.
- D34.1.4 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.
- D34.2 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.
- D34.3 The fuel escalation or de-escalation adjustment will not be applied if the CFI is within ±15% of the BFI.
- D34.4 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 deescalation adjustments will apply for Work that extends beyond the dates/Working Days specified for Substantial Performance/Critical Stages.
- D34.5 The Fuel Factor (FF) rates will be set as follows:
 - (a) The Fuel Factor rate shall be set at 2.7% of the monetary value of all Work based on unit prices.

D35. ADJUSTMENTS FOR CHANGES IN LAWS, TAXES, OR TARIFFS

- D35.1 Further to C12.4 and subject to C6.13, the Contract Price shall be adjusted if any change in a law or tax imposed under the Excise Act, the Excise Tax Act, the Customs Act, the Customs Tariff, The Mining Tax Act (Manitoba), or The Retail Sales Tax Act (Manitoba), by an act of the Congress of the United States of America, or by Executive Order by the President of the United States under the International Emergency Economic Powers Act of the United States of America or similar legislation:
 - (a) occurs after the Submission Deadline;
 - (b) applies to Material; and
 - (c) affects the cost of that Material to the Contractor.
 - (d) Further to C12.5, if a change referred to in C12.4 occurs, the Contract Price shall be increased or decreased by an amount equal to the amount that is established, by an examination of the relevant records of the Contractor, to be the increase or decrease in the cost incurred that is directly attributable to that change, and which the Contractor has proven to the Contract Administrator represents the minimum amount of increase necessary in order to obtain necessary Material or Plant. For the avoidance of doubt, the Contractor shall be required to provide satisfactory proof that it has investigated alternative options for obtaining equivalent Material or Plant and reducing or eliminating the increase in Contract Price, up to and including entering into purchase agreements with vendors located in other jurisdictions, in order for Contractor to be able to avail itself of the increase in Contract Price permitted.

WARRANTY

D36. WARRANTY

D36.1 Notwithstanding C13.2, the warranty period shall begin on the date of Substantial Performance and shall expire two (2) years thereafter for the Rubblization area, and one (1) years thereafter for the Mill and Fill area unless extended pursuant to C13.2.1 or C13.2.2, in which case it shall expire when provided for thereunder.

DISPUTE RESOLUTION

D37. DISPUTE RESOLUTION

- D37.1 If the Contractor disagrees with any opinion, determination, or decision of the Contract Administrator, the Contractor shall act in accordance with the Contract Administrator's opinion, determination, or decision unless and until same is modified by the process followed by the parties pursuant to D37.
- D37.2 The entire text of C21.4 is deleted, and amended to read: "Intentionally Deleted"
- D37.3 The entire text of C21.5 is deleted, and amended to read:
 - (a) If Legal Services has determined that the Disputed Matter may proceed in the Appeal Process, the Contractor must, within ten (10) Business Days of the date of the Legal Services Response Letter, submit their written Appeal Form, in the manner and format set out on the City's Purchasing Website, to the Chief Administrative Officer, and to the Contract Administrator. The Contractor may not raise any other disputes other than the Disputed Matter in their Appeal Form.
- D37.4 Further to C21, prior to the Contract Administrator's issuance of a Final Determination, the following informal dispute resolution process shall be followed where the Contractor disagrees with any opinion, determination, or decision of the Contract Administrator ("Dispute"):
 - (a) In the event of a Dispute, attempts shall be made by the Contract Administrator and the Contractor's equivalent representative to resolve Disputes within the normal course of project dealings between the Contract Administrator and the Contractor's equivalent representative.
 - (b) Disputes which in the reasonable opinion of the Contract Administrator or the Contractor's equivalent representative cannot be resolved within the normal course of project dealings as described above shall be referred to a without prejudice escalating negotiation process consisting of, at a minimum, the position levels as shown below and the equivalent Contractor representative levels:
 - (i) The Contract Administrator:
 - (ii) Supervisory level between the Contract Administrator and applicable Department Head;
 - (iii) Department Head.
- D37.4.1 Names and positions of Contractor representatives equivalent to the above City position levels shall be determined by the Contractor and communicated to the City at the precommencement or kick off meeting.
- D37.4.2 As these negotiations are not an adjudicative hearing, neither party may have legal counsel present during the negotiations.
- D37.4.3 Both the City and the Contractor agree to make all reasonable efforts to conduct the above escalating negotiation process within twenty (20) Business Days, unless both parties agree, in writing, to extend that period of time.

D37.4.4 If the Dispute is not resolved to the City and Contractor's mutual satisfaction after discussions have occurred at the final escalated level as described above, or the time period set out in D37.4.3, as extended if applicable, has elapsed, the Contract Administrator will issue a Final Determination as defined in C1.1(v), at which point the parties will be governed by the Dispute Resolution process set out in C21.

INDEMNITY

D38. INDEMNITY

- D38.1 Indemnity shall be as stated in C17.
- D38.2 Notwithstanding C17.1, the Contractor shall save harmless and indemnify the City in the amount of twice the Contract Price or five million dollars (\$5,000,000), whichever is greater, against all costs, damages or expenses arising from actions, claims, demands and proceedings, by whomsoever brought, made or taken as a result of negligent acts or negligent omissions of the Contractor, their Subcontractors, employees or agents in the performance or purported performance of the Work, and more particularly from:
 - (a) accidental injury to or death of any person whether retained by or in the employ of the contractor or not, arising directly or indirectly by reason of the performance of the Work, or by reason of any trespass on or damage to property;
 - (b) damage to any property owned in whole or in part by the City, or which the City by duty or custom is obliged, directly or indirectly, in any way or to any degree, to construct, repair or maintain;
 - (c) damage to, or trespass or encroachment upon, property owned by persons other than the City;
 - (d) any claim for lien or trust claim served upon the City pursuant to The Builders' Liens Act;
 - (e) failure to pay a Workers Compensation assessment, or Federal or Provincial taxes;
 - (f) unauthorized use of any design, device, material or process covered by letters patent, copyright, trademark or trade name in connection with the Work;
 - (g) inaccuracies in any information provided to the City by the Contractor.
- D38.3 Further to C17, The City shall save harmless and indemnify the Contractor in the amount of twice the Contract Price or five million dollars (\$5,000,000), whichever is greater, against all costs, damages or expenses arising from actions, claims, demands and proceedings, by whomsoever brought, made or taken as a result of negligent acts or negligent omissions of the City, their employees or agents in the performance of its obligation under the Contract.

THIRD PARTY AGREEMENTS

D39. FUNDING AND/OR CONTRIBUTION AGREEMENT OBLIGATIONS

- D39.1 In the event that funding for the Work of the Contract is provided to the City of Winnipeg by the Government of Manitoba and/or the Government of Canada, the following terms and conditions shall apply, as required by the applicable funding agreements.
- D39.2 Further to D39.1, in the event that the obligations in D39 apply, actual costs legitimately incurred by the Contractor as a direct result of these obligations ("Funding Costs") shall be determined by the actual cost to the Contractor and not by the valuation method(s) outlined in C7.4. In all other respects Funding Costs will be processed in accordance with Changes in Work under C7.
- D39.3 For the purposes of D39:
 - (a) "Government of Canada" includes the authorized officials, auditors, and representatives of the Government of Canada; and

(b) "Government of Manitoba" includes the authorized officials, auditors, and representatives of the Government of Manitoba.

D39.4 Modified Insurance Requirements

- D39.4.1 If not already required under the insurance requirements identified in D13, the Contractor will be required to provide wrap-up liability insurance in an amount of no less than two million dollars (\$2,000,000) inclusive per occurrence. Such policy will be written in the joint names of the City, Contractor, Consultants and all sub-contractors and sub-consultants and include twelve (12) months completed operations. The Government of Manitoba and their Ministers, officers, employees, and agents shall be added as additional insureds.
- D39.4.2 If not already required under the insurance requirements identified in D13, the Contractor will be required to provide builders' risk insurance (including boiler and machinery insurance, as applicable) providing all risks coverage at full replacement cost, or such lower level of insurance that the City may identify on a case-by-case basis, such as an installation floater.
- D39.4.3 The Contractor shall obtain and maintain third party liability insurance with minimum coverage of two million dollars (\$2,000,000.00) per occurrence on all licensed vehicles operated at the Site. In the event that this requirement conflicts with another licensed vehicle insurance requirement in this Contract, then the requirement that provides the higher level of insurance shall apply.
- D39.4.4 Further to D13.5, insurers shall provide satisfactory Certificates of Insurance to the Government of Manitoba prior to commencement of Work as written evidence of the insurance required. The Certificates of Insurance must provide for a minimum of thirty (30) days' prior written notice to the Government of Manitoba in case of insurance cancellation.
- D39.4.5 All policies must be taken out with insurers licensed to carry on business in the Province of Manitoba.

D39.5 Indemnification By Contractor

- D39.5.1 In addition to the indemnity obligations outlined in C17 of the General Conditions for Construction, the Contractor agrees to indemnify and save harmless the Government of Canada and the Government of Manitoba and each of their respective Ministers, officers, servants, employees, and agents from and against all claims and demands, losses, costs, damages, actions, suit or other proceedings brought or pursued in any manner in respect of any matter caused by the Contractor or arising from this Contract or the Work, or from the goods or services provided or required to be provided by the Contractor, except those resulting from the negligence of any of the Government of Canada's or the Government of Manitoba's Ministers, officers, servants, employees, or agents, as the case may be.
- D39.5.2 The Contractor agrees that in no event will Canada or Manitoba, their respective officers, servants, employees or agents be held liable for any damages in contract, tort (including negligence) or otherwise, for:
 - (a) any injury to any person, including, but not limited to, death, economic loss or infringement of rights;
 - (b) any damage to or loss or destruction of property of any person; or
 - (c) any obligation of any person, including, but not limited to, any obligation arising from a loan, capital lease or other long term obligation;

in relation to this Contract or the Work.

D39.6 Records Retention and Audits

D39.6.1 The Contractor shall maintain and preserve accurate and complete records in respect of this Contract and the Work, including all accounting records, financial documents, copies of contracts with other parties and other records relating to this Contract and the Work during the term of the Contract and for at least six (6) years after Total Performance. Those

records bearing original signatures or professional seals or stamps must be preserved in paper form; other records may be retained in electronic form.

D39.6.2 In addition to the record keeping and inspection obligations outlined in C6 of the General Conditions for Construction, the Contractor shall keep available for inspection and audit at all reasonable times while this Contract is in effect and until at least six (6) years after Total Performance, all records, documents, and contracts referred to in D39.6.1 for inspection, copying and audit by the City of Winnipeg, the Government of Manitoba and/or the Government of Canada and their respective representatives and auditors, and to produce them on demand; to provide reasonable facilities for such inspections, copying and audits, to provide copies of and extracts from such records, documents, or contracts upon request by the City of Winnipeg, the Government of Manitoba, and/or the Government of Canada and their respective representatives and auditors, and to promptly provide such other information and explanations as may be reasonably requested by the City of Winnipeg, the Government of Manitoba, and/or the Government of Canada from time-to-time.

D39.7 Other Obligations

- D39.7.1 The Contractor consents to the City providing a copy of the Contract Documents to the Government of Manitoba and/or the Government of Canada upon request from either entity.
- D39.7.2 If the Lobbyists Registration Act (Manitoba) applies to the Contractor, the Contractor represents and warrants that it has filed a return and is registered and in full compliance with the obligations of that Act, and covenants that it will continue to comply for the duration of this Contract.
- D39.7.3 The Contractor shall comply with all applicable legislation and standards, whether federal, provincial, or municipal, including (without limitation) labour, environmental, and human rights laws, in the course of providing the Work.
- D39.7.4 The Contractor shall properly account for the Work provided under this Contract and payment received in this respect, prepared in accordance with generally accepted accounting principles in effect in Canada, including those principles and standards approved or recommended from time-to-time by the Chartered Professional Accountants of Canada or the Public Sector Accounting Board, as applicable, applied on a consistent basis.
- D39.7.5 The Contractor represents and warrants that no current or former public servant or public office holder, to whom the Value and Ethics Code for the Public Sector, the Policy on Conflict of Interest and Post Employment, or the Conflict of Interest Act applies, shall derive direct benefit from this Contract, including any employment, payments, or gifts, unless the provision or receipt of such benefits is in compliance with such codes and the legislation.
- D39.7.6 The Contractor represents and warrants that no member of the House of Commons or of the Senate of Canada or of the Legislative Assembly of Manitoba is a shareholder, director or officer of the Contractor or of a Subcontractor, and that no such member is entitled to any benefits arising from this Contract or from a contract with the Contractor or a Subcontractor concerning the Work.

FORM J: SUBCONTRACTOR LIST

(See D15)

ABINOJII MIKANAH WESTBOUND - RUBBLIZATION AND MILL AND FILL

| Portion of the Work | <u>Name</u> | <u>Address</u> | |
|------------------------------|-------------|----------------|--|
| | | | |
| Supply of Materials | | | |
| Concrete | | | |
| Sub-base and Base Course | | | |
| Asphalt | | | |
| Guardrail and End Treatments | | | |
| | | | |
| Installation/Placement | | | |
| Rubblizing | | | |
| Concrete | | | |
| Sub-base and Base Course | | | |
| Asphalt | | | |
| Excavation | | | |
| Hydro Seeding | | | |
| Guardrail and End Treatments | | | |
| | | | |
| | | | |
| UNDERGROUND WORKS | | | |
| Supply of Materials | | | |
| Frames and Covers | | | |
| | | | |

FORM K: EQUIPMENT

(See D16)

ABINOJII MIKANAH WESTBOUND - RUBBLIZATION AND MILL AND FILL

| 1. | Category/type: | |
|-------------------|----------------|-------------|
| Make/N | Model/Year: | Serial No.: |
| Registe | ered owner: | |
| Make/N | Model/Year: | Serial No.: |
| Registe | ered owner: | |
| Make/N | Model/Year: | Serial No.: |
| Registe | ered owner: | |
| 2. | Category/type: | |
| Make/N | Model/Year: | Serial No.: |
| Registe | ered owner: | |
| Make/N | Model/Year: | Serial No.: |
| Registe | ered owner: | |
| Make/N | Model/Year: | Serial No.: |
| Registe | ered owner: | |
| 3. | Category/type: | |
| Make/N | Model/Year: | Serial No.: |
| Registe | ered owner: | |
| Make/N | Model/Year: | Serial No.: |
| Registe | ered owner: | |
| Make/N | Model/Year: | Serial No.: |
| Registered owner: | | |

FORM K: EQUIPMENT

(See D16)

ABINOJII MIKANAH WESTBOUND – RUBBLIZATION AND MILL AND FILL

| 4. Categor | y/type: | |
|-------------------|---------|-------------|
| Make/Model/Year: | | Serial No.: |
| Registered owner: | | |
| Make/Model/Year: | | Serial No.: |
| Registered owner: | | |
| Make/Model/Year: | | Serial No.: |
| Registered owner: | | |
| 5. Categor | y/type: | |
| Make/Model/Year: | | Serial No.: |
| Registered owner: | | |
| Make/Model/Year: | | Serial No.: |
| Registered owner: | | |
| Make/Model/Year: | | Serial No.: |
| Registered owner: | | |
| 6. Categor | y/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 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 version in effect three (3) Business Days before the Submission Deadline shall apply.
- E1.2.3 Further to C2.4(d), Specifications included in the Tender shall govern over *The City of Winnipeg Standard Construction Specifications*.
- E1.3 Bidders are reminded that requests for approval of substitutes as an approved equal or an approved alternative shall be made in accordance with 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:

| Drawing No. | Drawing Name/Title | <u>Drawing</u> |
|-------------|---|----------------|
| | | (Original) |
| | | Sheet Size |
| D 0500 04 | Cover Sheet | |
| P-3592-01 | Plan Drawing – Pavement Renewal STA 1+56.78 to STA 8+20 | A1 |
| P-3592-02 | Plan Drawing – Pavement Renewal STA 8+20 to STA 15+40 | A1 |
| P-3592-03 | Plan Drawing – Pavement Renewal STA 15+40 to STA 22+40 | A1 |
| P-3592-04 | Plan Drawing – Pavement Renewal STA 22+40 to STA 25+14.16 | A1 |
| P-3592-05 | St. Mary's and Abinojii Mikanah Intersection – Pavement Renewal | A1 |
| P-3592-06 | Cross Sections & Details | A1 |
| P-3592-07 | Cross Sections & Details | A1 |
| P-3592-08 | Guardrail Layout | A1 |
| P-3592-09 | Guardrail Details | A1 |
| P-3592-10 | Traffic Management Plan - Index | A1 |
| P-3592-11 | Traffic Management Plan – Phase I – Stage I | A1 |
| P-3592-12 | Traffic Management Plan – Phase I – Stage I & III | A1 |
| P-3592-13 | Traffic Management Plan – Phase I – Stage II | A1 |
| P-3592-14 | Traffic Management Plan – Phase I – Stage III | A1 |
| P-3592-15 | Traffic Management Plan – Phase I – Stage IV | A1 |
| P-3592-16 | Traffic Management Plan – Phase II – Stage I | A1 |
| P-3592-17 | Traffic Management Plan – Phase II – Stage I | A1 |
| P-3592-18 | Traffic Management Plan – Phase II – Stage I, II & III | A1 |
| P-3592-19 | Traffic Management Plan – Phase II – Stage II | A1 |
| P-3592-20 | Traffic Management Plan – Phase II – Stage II | A1 |
| P-3592-21 | Traffic Management Plan – Phase II – Stage III | A1 |
| P-3592-22 | Traffic Management Plan – Phase II – Stage III | A1 |
| P-3592-23 | Traffic Management Plan – Phase III – Stage I | A1 |
| P-3592-24 | Traffic Management Plan – Phase III – Stage II | A1 |
| P-3592-25 | Traffic Management Plan – Phase IV | A1 |

E2. MOBILIZATION AND DEMOBILIZATION PAYMENT

DESCRIPTION

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

SCOPE OF WORK

- E2.4 Further to C12 of the General Conditions, where Mobilization and Demobilization is included as a bid item, it shall consist of the following, as applicable:
 - (a) Mobilization shall include, but not be limited to:
 - All activities and associated costs for transportation of the Contractor's personnel, equipment, and operating supplies to the site, and/or sites, and/or between sites;
 - (ii) Establishment of offices, buildings, other necessary general facilities and equipment parking/staging areas for the Contractor's operations at the site or sites;
 - (iii) Premiums paid for performance and payment bonds including coinsurance and reinsurance agreements as applicable;
 - (iv) General cleanup and housekeeping needed maintain a neat and orderly project site(s);
 - (v) Other job related items.
 - (b) Demobilization shall include, but not be limited to:
 - (i) All activities and costs for transportation of personnel, equipment, and supplies not used in the project from the site, and/or sites, and/or between sites;
 - (ii) Disassembly, removal, and site cleanup and restoration of offices, buildings, and other facilities assembled on the site and/or sites;
 - (iii) Repair of access roads, temporary haul roads, and equipment parking areas leaving the project site in the same or better condition than at the start of the project;
 - (iv) General cleanup and housekeeping needed to restore a neat and orderly project site.
- E2.5 Access to the site, equipment parking, and staging areas are limited to that shown on the drawings or as approved by the Contract Administrator.

MEASUREMENT AND PAYMENT

- E2.6 The lump-sum price for the Mobilization and Demobilization bid item shall not exceed five percent (5.00%) of the total bid price for the Contract.
- Further to B10, B18, C12 and E2.6, should the lump sum price exceed 5% of the Total Bid Price the lump sum price will be reduced to 5% of the Total Bid Price, the Total Bid Price will be determined using the reduced lump sum price and payment will be based on the reduced lump sum price.
- E2.7 Payment for Mobilization:
 - (a) 60% of the lump-sum price will be paid to the contractor for Mobilization on the first Progress Estimate for the Contract.
- E2.8 Payment for Demobilization:

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 - (a) The remaining 40% of the lump-sum price will be paid upon:
 - (i) Restoration of the site and/or sites to the satisfaction of the Contract Administrator;
 - (ii) Distribution of the Declaration of Total Performance.
- E2.9 Pay Reduction for Accessibility Plan
 - (a) The Demobilization payment will be reduced by the number of pay adjustments incurred in accordance with D18 and as determined by the Contract Administrator.
- E2.10 Mobilization and Demobilization will be paid only once (to a maximum of 100%), regardless of the number of times the Contractor mobilizes to the site and/or sites.

E3. GEOTECHNICAL REPORT

E3.1 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'.

E4. OFFICE FACILITIES

- E4.1 The Contractor shall supply office facilities meeting the following requirements:
 - (a) The field office shall be for the exclusive use of the Contract Administrator.
 - (b) The building shall be conveniently located near the site of the Work at a location agreed to by the Contract Administrator.
 - (c) Three keys shall be provided for the Contract Administrator's use.
 - (d) The building shall have a minimum floor area of 20 square metres, 2.4 with a window and a door entrance with a suitable lock.
 - (e) The building shall be suitable for all weather use. It shall be equipped with an electric heater and air conditioner so that the room temperature can be maintained between either 16-18°C or 24-25°C.
 - (f) The building shall be powered by a generator provided and maintained by the Contractor.

 Alternative power sources are to be approved by the Contract Administrator.
 - (g) The building shall be adequately lighted with fluorescent fixtures and have a minimum of three wall outlets.
 - (h) The office shall allow clear reception of a cell phone within the office with the door closed.
 - (i) The building shall be furnished with one desk, table 3m x 1.2m, one four drawer legal size filing cabinet, and a minimum of 8 chairs. The chairs shall not contain fabric.
 - (i) The building shall include a microwave and a small fridge.
 - (k) 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.
 - (I) 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.
- E4.2 The Contractor shall be responsible for all installation and removal costs, all operating costs, and the general maintenance of the office facilities.
- E4.3 The office facilities will be provided from the date of the commencement of the Work to the date of Substantial Performance.

E5. TRAFFIC CONTROL

- E5.1 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) Designated Construction Zones;
 - (vi) Full or directional closures on a Regional Street;
 - (vii) Traffic routed across a median;
 - (viii) 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.
- E5.2 Upon request from the Contract Administrator, the Contractor shall provide records demonstrating that the site has been maintained.
- E5.3 Further to E5.1(c) and E5.1(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.
- E5.4 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.
- E5.5 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.

E6. TRAFFIC MANAGEMENT

- E6.1.1 See drawings P-3592-10 to P-3592-25 for the traffic management plan and temporary traffic signage for all phases of work.
 - (a) The Contractor shall submit detailed schedules a minimum four (4) weeks in advance of the commencement of the mill and fill of St. Mary's Rd intersection (Phase I, Stage IV) and Dakota St intersection (Phase IV) outlining the duration to complete the necessary steps for the review and approval by the Contract Administrator.

- (b) The Contractor shall submit drawings for the mill and fill of St. Mary's Rd intersection (Phase I, Stage IV) and Dakota St intersection (Phase IV) illustrating the temporary traffic control for each necessary step for the review and approval by Traffic Management and the Contract Administrator.
- E6.1.2 Flag persons may be necessary to maintain the flow of traffic during certain work operations.
- E6.1.3 Pedestrian access must be maintained at all times. Temporary pedestrian crossings shall be provided to the satisfaction of the Contract Administrator. Temporary asphalt ramping may be required and shall be paid for at the Contract Unit Price for Construction of Asphaltic Concrete Overlay Tie-ins.
 - (a) Access to Mercy Tunnel shall be maintained unless construction work makes it unsafe to do so. If a closure is required, the Contractor shall provide detour signage as directed by Traffic Management and the Contract Administrator.
- E6.1.4 Ambulance/emergency vehicle access must be maintained at all times.

E7. WATER OBTAINED FROM THE CITY

E7.1 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 Bylaws.

E8. SURFACE RESTORATIONS

E8.1 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.

E9. INFRASTRUCTURE SIGNS

E9.1 The Contractor shall obtain infrastructure signs from the Traffic Services Sign Shop at 421 Osborne Street. The Contractor shall mount each sign securely to a rigid backing material approved by the Contract Administrator. The Contractor shall fasten each sign to a suitable support and erect and maintain one sign at each street as directed by the Contract Administrator. When the Contract Administrator considers the Work on the street complete, the Contractor shall remove and dispose of the signs and supports. No measurement for payment will be made for performing all operations herein described and all other items incidental to the work described

E10. HYDRO SEED

DESCRIPTION

E10.1 Further to CW3520 this Specification covers the seed mix type and payment.

MATERIALS

E10.2 The seed mix shall be:

Seventy percent (70%) Fults or Nuttall's Alkaligrass (Puccinellia spp.) Twenty percent (20%) Audubon or Aberdeen Creeping Red Fescue Ten percent (10%) Perennial Ryegrass.

EQUIPMENT

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E10.3 Scarification equipment shall be suitable for the area being scarified, shall be capable of scarifying the sub-grade to the specified depth and shall be accepted by the Contract Administrator. For confined areas a toothed bucket may be acceptable. For larger areas tilling equipment may be required.

CONSTRUCTION METHODS

- E10.4 Preparation of Existing Grade
- Prior to placing topsoil, in areas to be seeded greater in width than 600mm, prepare the existing sub-grade by scarifying to a minimum depth of 75mm and to a maximum depth of 100mm to the satisfaction of the Contract Administrator.
- E10.4.2 Scarification shall consist of breaking up and loosening the sub-grade.

MEASUREMENT AND PAYMENT

- E10.5 Supply, placement and maintenance of Hydro Seed will be paid for at the Contract Unit Price per square metre for "Hydro Seed", measured as specified herein, which price shall be payment in full for supplying all materials and for completing all operations herein described and all other items incidental to the work included in this Specification. Payment for Hydro Seeding shall be in accordance with the following:
 - (a) Fifty (50%) percent of quantity following supply and placement.
 - (b) Remaining Fifty (50%) percent of quantity following termination of the Maintenance Period.

E11. SUPPLYING AND PLACING BASE COURSE MATERIAL

DESCRIPTION

E11.1 This specification amends how base course is paid for. It will be paid for per tonne and not cubic metre as per CW 3110-R22

CONSTRUCTION METHODS

E11.2 Notwithstanding CW 3110 – R22, the Contractor shall prime the granular base course layer within one (1) calendar day of the completion of top granular base course layer.

MEASUREMENT AND PAYMENT

- E11.3 "Supplying and Placing Base Course Material Base Course Material Granular A Limestone" shall be paid for by the tonne for the supply and installation, as measured on a certified weigh scale.
- E11.4 The Contractor shall provide hardcopy tickets on a weekly basis to the Contract Administrator.

E12. RUBBLIZE CONCRETE PAVMENT

DESCRIPTION

E12.1 This work shall consist of rubblizing the existing 200mm thick concrete pavement.

CONSTRUCTION METHODS

E12.2 A self-contained, self-propelled multi-head breaker shall be used to rubblize the existing concrete pavement. Hammer heads shall be mounted laterally in pairs with half the hammers in a forward row, and the remainder diagonally offset in a rear row so there is continuous pavement breaking from side to side. This equipment shall have the capability of rubblizing pavement up to 3.7 meters in width, in a single pass. Hammer drop height shall have the ability to be independently controlled.

- E12.3 A Z-pattern steel grid roller shall be used to further break and consolidate the rubblized material. The equipment shall consist of a self-contained self-propelled vibratory steel wheel roller with a Z-pattern grid cladding bolted transversely to the surface of the drum. The vibratory roller shall have a minimum gross weight of 9 tonnes and make a minimum of 6 passes to consolidate the material.
- E12.4 Any unstable material, as determined by the Contract Administrator, shall be removed and replaced with 50mm Granular A. The removed material shall be hauled off site by the Contractor. Removal of unstable material will be paid for at the unit price for "Removing Existing Rubblized Concrete". Any material used to backfill these excavations will be paid for at the applicable unit prices.
- E12.5 The Contractor shall prevent damage to underground utilities and drainage structures during rubblization. Approved alternate breaking methods shall be used over underground utilities and drainage structures, as specified on the drawings or directed by the Contract Administrator.
- E12.5.1 The Contractor will avoid rubblizing the pavement over top and 15m either side of the existing pedestrian underpass concrete box located at station 16+80.
- E12.6 The upper half of the pavement shall be broken such that at least 75 percent of the pieces are a maximum of 75mm. The lower half of the pavement shall be broken such that at least 75 percent of the pieces shall be a maximum of 225 mm. Concrete to steel bond shall be broken.
- E12.7 Any large concrete pieces that result from inadequate breaking shall be treated as follows:
 - (a) Greater than 225mm at surface of broken pavement:
 - (i) Reduce size to under 225mm, or remove and replace.
 - (b) Great than 300mm below lower half of pavement:
 - (i) Reduce side to under 300mm, or remove and replace.
- E12.8 The Contractor shall be responsible for either reducing inadequate broken pavement or for removal and replacement with Crushed Rock, 50mm Granular A. No extra payment will be made for removing inadequately broken pavement and replacing it with Crushed Rock, as this will be considered incidental to the unit price for "Rubblize Concrete Pavement".
- E12.9 Reinforcement steel shall be left in place, except that any reinforcement projecting from the surface after rubblizing or compaction shall be cut off below the surface and removed. Any loose joint fillers, expansion material, or other similar items shall also be removed.
- E12.10 Prior to the acceptance of the proposed breaking procedure, the Contractor shall complete a strip for evaluation by the Contract Administrator. To ensure the pavement is being broken to the specified dimensions; the Contractor shall excavate a broken area of 1 square meter, in two separate locations during the first day of breaking, as directed by the Contract Administrator. Modifications to the breaking procedure must be made if the size requirements are not met. These excavations may be repaired with Crushed Rock, 50mm Granular A. Additional excavations to inspect the broken pavement dimensions shall be made on a daily basis, as directed by the Contract Administrator. Payment will be made for these test sections under the respective contract unit price.
- E12.11 The 50mm Granular A sub-base course to be placed on top of the rubblized concrete shall be constructed within 24 hours of the rubblization operation. If rain occurs between rubblizing and placement of 50mm Granular A sub-base, the rubblized pavement shall be dry and stable to the satisfaction of the Contract Administrator before the placement of sub-base operation begins.
- E12.12 The Contractor shall be responsible for any deterioration of the concrete and subgrade following the planning of the existing bituminous pavement as well as following the rubblization operation. It shall be the responsibility of the Contractor to schedule and monitor the work to ensure that no failures occur due to excessive moisture.

MEASUREMENT AND PAYMENT

E12.13 The unit price per square meter for "Rubblize Concrete Pavement" will be considered as payment in full for rubblizing and grid rolling the in-place concrete pavement and for all work necessary or incidental thereto.

E13. STEEL BEAM GUARDRAIL SYSTEM

DESCRIPTION

- E13.1 The Work shall consists of:
 - (a) Supply and installation of roadside hazard protection meeting the AASHTO Manual for Assessing Safety Hardware (MASH) Test Level 3 or NCHRP Report 350: Recommended Procedures for the Safety Performance Evaluation of Highway Features, including:
 - W-Beam guardrail (Midwest Guardrail System) with steel posts and neoprene spacer blocks; and,
 - (ii) End treatments.
 - (b) Supply, loading, hauling, unloading, storing and installing of roadside hazard protection guardrail, guardrail end treatment, posts, and all related appurtenances in accordance with the Drawings and Manufacturer's recommended installation procedures,
 - (c) Field drilling, threading and cutting bolts, as required; and,
 - (d) Supply, placing and compacting backfill material.

SUBMITTALS

E13.2 The Contractor shall submit a shop drawing to the Contract Administrator for approval demonstrating the post spacing, offsets from the road, connection details, materials types and products used.

MATERIALS

- E13.3 The Contractor shall be responsible for the supply, safe storage and handling of all materials set forth in this specification.
- E13.4 Guardrails and posts shall be stored in neat regular piles, on blocks or built up platforms, in order to avoid damage or contamination, and for ease of checking, handling, and inspection.
- E13.5 Testing, Inspection and Approval
 - (a) All materials supplied under this specification shall be subject to inspection and testing by the Contract Administrator or by the Testing Laboratory designated by the Contract Administrator. There shall be no charge for any materials taken by the Contract Administrator for testing purposes.
 - (b) Materials which fail to meet these specifications will be rejected, and shall be replaced or repaired at no additional cost.
- E13.6 Guardrails and Terminal Elements
 - (a) All guardrail sections and other components shall match the design profiles and dimensions of the AASHTO/ARTBA hardware requirements.
 - (b) The guardrails and terminal elements shall be manufactured from open hearth, electric furnace or basic oxygen semi-spring steel sheet, all in general accordance with the AASHTO Standard Designation M180 and shall conform to the Drawings provided in the contract and in the AASHTO-AGC-ARTBA publication "A Guide to Standardized Highway Barrier Hardware".
 - (c) Guardrails shall be punched for splice and post bolts in conformity with AASHTO Standard to the designated number of and centre to centre spacing of posts. If holes are punched

- after galvanizing, the galvanizing around the hole shall be repaired in accordance with the latest edition of CSA Standard G164-M92 (R2003) or ASTM A780/A780M-09.
- (d) Guardrails shall have minimum yield strength of 345 MPa, minimum tensile strength of 483 MPa, and minimum elongation of 12% in 50 mm length.
- (e) The thickness of guardrails and terminal elements shall be manufactured according to Table 2 (Class A Type II) of AASHTO Standard M180 with nominal base metal thickness of 2.67 mm, galvanized finished thickness of 2.82 mm, with a tolerance of 0.23 mm.
- (f) Sheet width for the W-beam guardrail shall be 483 mm with a permissible tolerance of minus 3 mm.
- (g) All guardrails and terminal elements shall be hot dip galvanized according to CAN/CSA A123/A123M Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
- (h) All welding for the fabrication of terminal elements shall conform to the requirements of CSA W59M. All welders, welding operators and tackers shall be approved by the Canadian Welding Bureau in their particular category.
- (i) A copy of the producer's certificate, conforming to Section 16 of CSA G40.20M, for each of the mechanical and chemical tests, including impact tests, shall be provided to the Contract Administrator upon request.
- (j) Terminal ends to be FLEAT as indicated on Drawings or approved equal.

E13.7 Steel Posts

- (a) Steel posts shall be W150 x 14.
- (b) Steel for posts and hardware shall conform to CAN/CSA Standard G40.21 Grade 350W or ASTM Standard A36 and shall be hot dip galvanized after fabrication conforming to ASTM A123/A123M Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.

E13.8 Neoprene Spacer

(a) Spacer products shall be proposed to the Contract Administrator for approval.

E13.9 Bolts, nuts, washers and other appurtenances

(a) All bolts, nuts and washers shall be according to ASTM A307 and shall be hot dip galvanized conforming to the current edition of ASTM A153/A153M Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.

E13.10 Markings

- (a) Each guardrails shall be marked with the following information:
 - (i) Name, trademark, or brand of the manufacturer.
 - (ii) Identification symbols or code for heat.
 - (iii) Week number and year of production.
- (b) Markings shall be clearly and permanently stamped in the valley of the centre corrugation, placed at the location clear of the splice overlap, and shall not be obscured after installation. The height of the letters and numerals shall be within the range of 19 to 32 mm.

CONSTRUCTION METHODS

E13.11 Handling and Storage of Materials

- (a) All materials shall be handled in a careful and workmanlike manner and the sections and ends shall be stored on blocks or built-up platforms.
- (b) Bolts and malleable washers shall be stored separately in suitable bins for inspection, checking and handling.

E13.12 Site Inspection

- (a) Prior to commencing installation of the protection at a location, the Contractor shall verify that it can be installed in strict accordance with the Drawings. This shall include contacting all utilities and other owners of underground facilities in order to ensure that the proposed location of the posts is not in conflict with existing or proposed utilities and installations.
- (b) Should there be a conflict between a proposed location and any facility the Contract Administrator shall be notified immediately.

E13.13 Assembly and Installation

(a) All materials and parts shall be assembled and installed in accordance with the manufacturers' requirements and recommended procedures.

E13.14 Post Installation

- (a) Holes for the posts shall be 300 mm in diameter and be excavated by auger.
- (b) Excavated material which is unsuitable for use as backfill shall be replaced with granular material meeting the requirements of Section 2.2 of Specification CW 3110 for base course material.
- (c) Crushed limestone base course is not allowed for use.
- (d) The posts shall rest directly and solidly on the bottom of the hole.
- (e) After the post is installed, it shall be backfilled. Backfill shall be thoroughly compacted, using pneumatic tampers, in layers not exceeding 150 mm. Unsuitable material at the bottom of the holes excavated shall be replaced with granular material at the Contractor's expense, as directed by the Contract Administrator.
- (f) The Contractor shall thoroughly compact the bottom of the holes.
- (g) Surplus excavated material and debris shall be removed from the Site.

E13.15 Guardrail Installation

- (a) Guardrail shall be accurately set to the required depth and alignment, in a manner resulting in a smooth continuous installation, as shown on the Drawings or as directed by the Contract Administrator. Permissible tolerance for plumb and grade of posts shall be 6 mm.
- (b) Any guardrail material requiring field modification to fit shall be reported to the Contract Administrator for its acceptance of the modification prior to the Work being carried out. Modification by flame cutting method is prohibited. Modification by cold cutting method with a suitable drill press is allowed. Field guardrail modification is considered incidental to the Work. Adequate edge distances of guardrail material shall be maintained during the modification process. All exposed steel areas shall be patched with two coats of zinc-rich paint. Guardrail laps shall be in the direction of traffic flow. Bolts shall be tightened to a torque of 100Nm. The Contractor shall take all necessary precautions to eliminate damage to galvanizing. Minor abrasions shall be repaired by re-galvanizing. The method to be used for repair of any damage shall be accepted by the Contract Administrator before such Work is commenced. The Contractor shall repair or replace components to the satisfaction of the Contract Administrator.

E13.16 FLEAT End Treatment

(a) The FLEAT end treatment, or approved equal meeting MASH Test Level 3, shall be installed as indicated on the Drawings. Installation of the FLEAT end treatment shall be completed in accordance with the Specifications and the manufacturer's recommendations.

E13.17 Cleaning

(a) After installation of the rail system has been completed, the entire rail system shall be thoroughly cleaned to the satisfaction of the Contract Administrator.

MEASUREMENT AND PAYMENT

- E13.18 Supply and installation of roadside hazard protection guardrail, posts, and all related appurtenances will be measured on a length basis and paid for at the Contract Unit Price for the "Steel Beam Guardrail". The length to be paid for will be the total number of meters of Steel Beam Guardrail in accordance with this Specification, accepted and measured by the Contract Administrator.
- E13.19 Supply and installation of FLEAT end treatments, associated posts and appurtenances will be measured on a unit basis and paid for at the Contract Unit Price for the "FLEAT End Treatment". The amount to be paid for will be the total number of units installed in accordance with this Specification, accepted and measured by the Contract Administrator.

E14. CONTRUCTION LAYOUT AND AUTOMATED GRADE CONTROL REQUIREMENTS

DESCRIPTION

E14.1 This specification describes what construction layout the Contract Administrator will perform for the Contractor, what electronic information will be provided to the Contractor and what construction methods are to be executed using automated grade control by the Contractor.

CONSTRUCTION METHODS

- E14.2 The Contract Administrator will provide the following;
 - (a) Electronic files for the median, gutter lanes and auxiliary lanes so the Contractor can produce their own surface. The surface is intended to be used for automated control with excavation for the shoulders and placement of sub-base and base course.
 - (b) Grade and alignment stakes for all new excavations related to the lengthen of auxiliary lanes.
 - (c) Grade and alignment stakes for all curbs, sidewalks and concrete works.
 - (d) Grade and alignment stakes for all underground works.
 - (e) Stationing stakes for the mainline alignment every 20m.
 - (f) Grade and flashing will be provided on all curbs for final asphalt elevation.
 - (g) Grades will be painted at each tie in.
 - (h) Mark out the face of guardrail and the start and finish of the assembly.
- E14.3 The Contractor Administrator will use GPS equipment to check the accuracy of the automated Contractor equipment and will provide timely feedback.
- E14.4 The Contractor is to use a ski for asphalt paving. Grades will not be provided to set up a string line.
- E14.5 The Contractor shall use a stringline to aid in painting out the edge of asphalt to be paved for each lift.

MEASUREMENT AND PAYMENT

E14.6 Automated grade control setup and execution is incidental to the Contractor's work and no measurement or payment will be made.

E15. INSTALLATION OF STRAW WATTLES

DESCRIPTION

E15.1 Straw wattles are required to be installed as erosion control measures to mitigate any deleterious materials from entering the Land Drainage System. At a minimum these locations will include the perimeter of all riprap located at: ditch catch basins, and ditch bottom pads.

MATERIALS

E15.2 The straw wattles shall be Stenlog or other biodegradable straw wattles.

CONSTRUCTION METHODS

- E15.3 Install 300mm Stenlog or other straw wattle sediment control material in accordance with the manufacturer's specifications around all riprap areas related to drainage inlets and outlets, and catch basins within seeded areas.
- E15.4 Install straw wattles so that no gaps exist between the soil and the bottom of the wattle, and the ends of adjacent wattles are overlapped 150mm minimum to prevent water and sediment passing. Achieve a tight seal between the wattle segments.
- E15.5 Dogleg terminal ends of straw wattle up the slope to prevent channelling of sedimentation.
- E15.6 Use 300mm wooden stakes to fasten straw wattle to the soil. Place stakes on each side of the straw wattle, lying across the natural fibre twine, spaced 1200mm on centre. Leave 30 to 50mm of wood stake exposed above the wattle.
- E15.7 Avoid damage to wattles. Damaged areas of wattles should be cut and tied off, then treated as terminal ends.
- E15.8 At the direction of the Contract Administrator, the Straw Wattle shall be removed after seeding has established and before the end of the Warranty Period.

MEASUREMENT AND PAYMENT

E15.9 Installation of straw wattles will be considered incidental to the Contract and no separate measurement for payment will be made.

E16. DITCH INLET GRATE

DESCRIPTION

E16.1 This specification covers the supply and installation of ditch inlet grates, typically used in open swales or ditches as an alternative to City of Winnipeg Approved Product grated manhole cover AP-006.

MATERIALS AND EQUIPMENT

- E16.2 All steel shall be hot dip galvanized after fabrication and all hardware shall be stainless steel.
- E16.3 Cover to be Shopost Iron Works MK-A1 or approved equal.

CONSTRUCTION METHODS

- E16.4 Contractor to securely affix ditch inlet grates to manhole reducer or riser utilizing stainless steel hardware.
- E16.5 Any galvanized surfaces that are damaged shall be coated with a galvanizing compound approved by the Contract Administrator

MEASUREMENT AND PAYMENT

E16.6 Ditch Inlet Grates will be measured on a unit basis and paid for at the Contract Unit Price per cover as "Ditch Inlet Grate". The number to be paid for will be the total number of Ditch Inlet Grates supplied & installed in accordance with this specification and accepted by the Contract Administrator.

E17. SPECIAL PROVISION FOR ASPHALT PAVEMENT WORKS

E17.1 See Appendix B.

E18. ASPHALT PAVEMENT WORKS

DESCRIPTION

- E18.1 This specification provides additional direction on finishing the longitudinal asphalt joints and other details on asphalt placement for clarity.
- E18.2 The intention of this specification is to use machines and procedures that reduce the magnitude for longitudinal cold joints constructed on the project.
- E18.3 This specification is in addition to Appendix B.

CONSTRUCTION METHODS

- E18.4 The Contractor's asphalt paving machine is to be capable of paving up to 5.2m wide with no bolt on attachment. The use of a highway paver is required. This is to allow for paving of a 3.7m lane with a 1.5m inside shoulder simultaneously.
- E18.5 The Contractor's Asphalt Superintendent shall meet with the Contract Administrator on site at least two (2) days prior to paving to discuss the paving plan which includes truck access, direction of paving, application of tack or prime coat, volume of anticipated asphalt for the next paving operations, finishing details and paving widths.
- E18.6 Edges on new asphalt are to be protected with ramps. Rounded asphalt edges from temporary traffic are to be cut square prior to paving.
- E18.7 Transfer machines for asphalt placement on the top two lifts are a requirement in Phase II.
- E18.8 Both lanes for all three lifts of asphalt in Phase II section are to be paved in echelon (two pavers) so there is a hot longitudinal joint along the centreline.
- E18.9 The shoulder in Phase III section is to be Type 1A asphalt.

MEASUREMENT AND PAYMENT

E18.10 No additional measurement or payment will be made for this work.

E19. CONSTRUCTION OF CURBS FOR ASPHALT PAVEMENT

DESCRIPTION

E19.1 This Specification covers the construction of Barrier Curb and Integral Barrier Curb with Splash Strip for Asphalt Pavement.

GENERAL

- E19.2 Referenced Standard Construction Specifications and Detail Drawing:
 - (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
 - (d) Detail 'SD-200A' Barrier Curb for Asphalt Pavement (125mm reveal)
 - (e) Detail 'SD-200B' Barrier Curb with Integral Splash Strip for Asphalt Pavement (125mm reveal)

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E19.3 Further to CW 3310, the contractor shall construct the curbs as per the details in the Contract Drawings.

- E19.4 Construction of Barrier Curb for Asphalt Pavement and Barrier Curb with Integral Splash Strip for Asphalt Pavement (125mm reveal)
- E19.4.1 Place and compact rubblized concrete, 50mm sub-base, and base course material for roadway in accordance with the details and Specification CW 3110.
- E19.4.2 Supply and install 20M tie-bars into sub-base material as shown on Detail 'A'.
- E19.4.3 Drill holes into the sub-base with a drilling diameter of 2mm greater than the diameter of the tie bar.
- E19.4.4 Supply and install 2-10M longitudinal deformed bars for reinforcement as shown on Detail 'A'.
- E19.4.5 Supply and install 2-19.1mm dowels at transverse joints every 6.0 meters as shown on Detail 'A'. All dowels shall be thoroughly lubricated with asphaltic cut-back.
- E19.4.6 Provide a minimum of 40mm cover between reinforcing steel and the finished concrete surface.
- E19.4.7 Transverse joints will be saw cut every 3.0 meters. Transverse joints are to be saw cut to a maximum depth of 25mm, so as to not saw cut into the 10M longitudinal deformed bars and 19.1mm dowels.
- E19.4.8 Place concrete utilizing slip-form paving equipment in accordance with Specification CW 3310 unless otherwise directed by the Contract Administrator.

MEASUREMENT AND PAYMENT

- E19.5 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 "Construction of Barrier Curb for Asphalt Pavement". The length to be paid for shall be the total number of meters supplied and installed in accordance with this Specification, accepted and measured by the Contract Administrator.
- E19.6 Construction of Barrier Curb with Integral Splash Strip for Asphalt Pavement shall be measured on a length basis and paid for at the Contract Unit Price per metre of "Construction of Barrier Curb with Integral Splash Strip for Asphalt Pavement". The length to be paid for shall be the total number of meters supplied and installed in accordance with this Specification, accepted and measured by the Contract Administrator.
- E19.7 The supply and installation of 20M tie-bars, 10M longitudinal deformed bars and 19.1mm dowels is incidental to "Construction of Barrier Curb for Asphalt Pavement" and "Construction of Monolithic Barrier Curb and Splash Strip for Asphalt Pavement". No measurement or payment will be made.
- E19.8 Supply and placement of base course material for backfill to be paid for as per payment item "Base Course Material Granular A Limestone".

E20. ROADWORKS IN CLOSE PROXIMITY TO THE FEEDERMAIN OR AQUEDUCT

- E20.1 Contractors carrying out pavement construction or working in close proximity to the Feedermain and the Aqueduct shall meet the following conditions and technical requirements.
- E20.1.1 Pre-work, Planning and General Execution
 - (a) No work shall commence at the site until the construction method statement has been approved, a pre-construction meeting has been held, an inspection of aqueduct and feedermain appurtenances have been inspect by Water Services, and the Feedermain and Aqueduct locations have been clearly delineated in the field by use of paint, staking/flagging, construction fencing, snow fencing, or other suitable methods.

- (b) The Contractor shall ensure that all work crew members understand and observe the requirements of this specification. Prior to commencement of onsite work, the Contractor shall jointly conduct an orientation meeting with the Contract Administrator and with all superintendents, foremen, and heavy equipment operators to make all workers on site fully cognizant of the limitation of altered loading on the Feedermain, the ramifications of inadvertent damage to the Feedermain and Aqueduct and the constraints associated with work in close proximity to the Feedermain and Aqueduct.
- (c) For traverse crossings of the Feedermain and Aqueduct in support of the roadworks activities, designate crossing locations just beyond the construction site and confine equipment crossing the Feedermain and Aqueduct at those locations. Reduce equipment speeds to levels that minimize impact loadings.
- (d) For construction work activities either longitudinally or transverse to the alignment on the Feedermain and Aqueduct, work only with equipment and in the manner stipulated in the approved construction method statement and the requirements noted herein.
- (e) Subgrade, subbase, and base course construction shall be kept in a rut free condition at all times. Construction equipment is prohibited from crossing the Feedermain and Aqueduct if the grade is insufficient to support the equipment without rutting.
- (f) Granular material, construction material, soil or other material shall not be stockpiled on the Feedermain or within 5 metres of the Feedermain and Aqueduct centerline.
- (g) Stage construction such that the Feedermain and Aqueduct is not subject to significant asymmetrical loading at any time.
- (h) Where work is in proximity to the Feedermain and Aqueduct, utilize construction practices and procedures that do not impart excessive vibration loads on the Feedermain and Aqueduct or that would cause settlement of the subgrade below the Feedermain and Aqueduct
- (i) No rubblization is to occur within 8.0m of the feedermain or aqueduct.
- (j) The steel shall be cut between the mainlines that are to be rubblized and the newer concrete third lane near side of River Road. This is to prevent vibration transfer to the newer pavement that will not be rubblized.

E20.1.2 Demolition and Excavation

- (a) Concrete demolition and removal within 3 metres horizontally of the Feedermain and Aqueduct shall be completed by saw-cutting and removal, or use of hand-held jackhammers. Use of machine mounted concrete breakers above the Feedermain and Aqueduct shall not be permitted.
- (b) Where there is less than 2.5 metres of cover over the Feedermain and Aqueduct, offset the excavator or excavation equipment from the Feedermain and Aqueduct a minimum of 2.5 metres from the Feedermain and Aqueduct centerline to carry out excavation.
- (c) Where there is less than 1.6m of earth cover over the Feedermain and Aqueduct and further excavation is required either adjacent to or over the Feedermain and Aqueduct, utilize only smooth edged excavation buckets, soft excavation, or hand excavation techniques.
- (d) Excavated materials intended for reuse shall not be dumped directly on the Feedermain and Aqueduct but shall be carefully bladed into place.

E20.1.3 Subgrade Construction

- (a) Subgrade compaction within three metres (horizontal) of a the Feedermain and Aqueduct shall be limited to non-vibratory methods only. Small walk behind vibratory packers will be permitted.
- (b) Construction operations shall be staged to minimize the time period between excavation to subgrade and placement of granular subbase materials. Should bare subgrade be left overnight, measures shall be implemented to protect the subgrade against inadvertent travel over it and minimize the impact of wet weather.

(c) Subgrade conditions should be inspected by personnel with competent geotechnical experience (e.g. ability to adequately visually classify soils and competency of subgrade, subbase, and base course materials). In the event of encountering unsuitable subgrade materials above the Feedermain and Aqueduct, proposed design revisions shall be submitted to this office for review to obtain approval from the Water and Waste Department relative to any change in conditions.

E20.1.4 Subbase and Base Course Construction

- (a) Subbase or base course material shall not be dumped directly on top of the Feedermain and Aqueduct, but shall be carefully bladed into place.
- (b) Subbase compaction shall be either carried out by static methods without vibration or with smaller equipment such as hand-held plate packers or smaller roller equipment.

E20.1.5 Paving

(a) When constructing asphalt pavements, only non-vibratory compaction should be used within 3 metres (horizontal) of the center of the Feedermain and Aqueduct.

E21. TEMPORARY ELECTRONIC VARIABLE MESSAGE SIGNS

DESCRIPTION

E21.1 This specification provides clarification on how temporary variable message signs (VMS) will be paid for and the expectations for durations, movement and provision of signs.

CONSTRUCTION METHODS

- E21.2 The Contractor shall place a VMS temporarily at each of the locations directed by the Contract Administrator.
- E21.3 The Contractor shall provide three (3) VMS.
- E21.4 The Contract Administrator will provide the Contractor with the messaging to be programmed. The Contractor is to assume the message is to be changed on each board at least twice during the project duration.
- E21.5 The Contractor is to assume that each board will require two (2) relocations per sign during the project duration.
- E21.6 If more or less than three VMS are required the unit price will be adjusted by the corresponding ratio.

MEASUREMENT AND PAYMENT

- E21.7 "Temporary Variable Message Signs" shall be paid for by the week for the rental and placement of three (3) VMS.
- E21.8 Placement, removal, reprogramming as per E22.4 and relocations as per E22.5 are incidental to the unit prices.
- E21.9 Costs associated with provision of VMS following the date of Substantial Completion will not be measure or paid for.
- E21.10 In the event a sign is needed for less than a week at the start of the end of the project, the measurement shall be rounded up to a whole week.

E22. REINFORCED CONCRETE SIDEWALK FOR NON-HEATED TRANSIT SHELTER

DESCRIPTION

E22.1 This specification provide more information for the details of constructing the concrete pad for a transit shelter.

CONSTRUCTION METHODS

- E22.2 The pad shall be 125mm thick.
- E22.3 The reinforcement shall be 10M steek spaced at 300mm on centre, each way. The reinforcement shall be deformed black steel with a minimum yield strength of 300 MPa. The reinforcement shall have 50mm clear cover to the edges and placed in the middle of the slab.
- E22.4 There shall be no saw-cuts within the shelter foundation and have a maximum slope of 1% across the pad from front to back.

MEASUREMENT AND PAYMENT

E22.5 Reinforced concrete sidewalk for a non-heated shelter shall by measured and paid for by square metre under "125mm Type 1 Reinforced Concrete Sidewalk for Non-Heated Shelter" and shall include all forming, placing, concrete, 50mm of compacted leveling course and reinforcement"