



THE CITY OF WINNIPEG

TENDER

TENDER NO. 439-2020

**2021 REGIONAL STREET RENEWAL PROGRAM – SALTER STREET
REHABILITATION – SLAW REBCHUK BRIDGE TO CATHEDRAL AVENUE**

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Appendix 'A' - Geotechnical Report

Appendix 'B' - Conceptual Construction Schedule

PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

- B1.1 2021 REGIONAL STREET RENEWAL PROGRAM – SALTER STREET REHABILITATION – SLAW REBCHUK BRIDGE TO CATHEDRAL AVENUE

B2. SUBMISSION DEADLINE

- B2.1 The Submission Deadline is 12:00 noon Winnipeg time, December 11, 2020.
- B2.2 The Contract Administrator or the Manager of Materials may extend the Submission Deadline by issuing an addendum at any time prior to the time and date specified in B2.1.

B3. ENQUIRIES

- B3.1 All enquiries shall be directed to the Contract Administrator identified in D4.1.
- B3.2 If the Bidder finds errors, discrepancies or omissions in the Tender, or is unsure of the meaning or intent of any provision therein, the Bidder shall notify the Contract Administrator of the error, discrepancy or omission, or request a clarification as to the meaning or intent of the provision at least five (5) Business Days prior to the Submission Deadline.
- B3.3 Responses to enquiries which, in the sole judgment of the Contract Administrator, require a correction to or a clarification of the Tender will be provided by the Contract Administrator to all Bidders by issuing an addendum.
- B3.4 Responses to enquiries which, in the sole judgment of the Contract Administrator, do not require a correction to or a clarification of the Tender will be provided by the Contract Administrator only to the Bidder who made the enquiry.
- B3.5 The Bidder shall not be entitled to rely on any response or interpretation received pursuant to B3 unless that response or interpretation is provided by the Contract Administrator in writing.
- B3.6 Any enquiries concerning submitting through MERX should be addressed to:
MERX Customer Support
Phone: 1-800-964-6379
Email: merx@merx.com

B4. CONFIDENTIALITY

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

B5. ADDENDA

- B5.1 The Contract Administrator may, at any time prior to the Submission deadline, issue addenda correcting errors, discrepancies or omissions in the Tender, or clarifying the meaning or intent of any provision therein.

- B5.2 The Contract Administrator will issue each addendum at least two (2) Business Days prior to the Submission Deadline, or provide at least two (2) Business Days by extending the Submission Deadline.
- B5.3 Addenda will be available on the MERX website at www.merx.com.
- B5.4 The Bidder is responsible for ensuring that he/she has received all addenda and is advised to check the MERX website for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.
- B5.5 The Bidder shall acknowledge receipt of each addendum in Paragraph 10 of Form A: Bid/Proposal. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.
- B5.6 Notwithstanding B3, enquiries related to an Addendum may be directed to the Contract Administrator indicated in D4.

B6. SUBSTITUTES

- B6.1 The Work is based on the Plant, Materials and methods specified in the Tender.
- B6.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.
- B6.3 Requests for approval of a substitute will not be considered unless received in writing by the Contract Administrator at least five (5) Business Days prior to the Submission Deadline.
- B6.4 The Bidder shall ensure that any and all requests for approval of a substitute:
- (a) provide sufficient information and details to enable the Contract Administrator to determine the acceptability of the Plant, Material or method as either an approved equal or alternative;
 - (b) identify any and all changes required in the applicable Work, and all changes to any other Work, which would become necessary to accommodate the substitute;
 - (c) identify any anticipated cost or time savings that may be associated with the substitute;
 - (d) certify that, in the case of a request for approval as an approved equal, the substitute will fully perform the functions called for by the general design, be of equal or superior substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance;
 - (e) certify that, in the case of a request for approval as an approved alternative, the substitute will adequately perform the functions called for by the general design, be similar in substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance.
- B6.5 The Contract Administrator, after assessing the request for approval of a substitute, may in his/her sole discretion grant approval for the use of a substitute as an "approved equal" or as an "approved alternative", or may refuse to grant approval of the substitute.
- B6.6 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, to the Bidder who requested approval of the substitute.
- B6.6.1 The Contract Administrator will issue an Addendum, disclosing the approved materials, equipment, methods and products to all potential Bidders. The Bidder requesting and obtaining the approval of a substitute shall be responsible for disseminating information regarding the approval to any person or persons he/she wishes to inform.

- B6.7 If the Contract Administrator approves a substitute as an “approved equal”, any Bidder may use the approved equal in place of the specified item.
- B6.8 If the Contract Administrator approves a substitute as an “approved alternative”, any Bidder bidding that approved alternative may base his/her Total Bid Price upon the specified item but may also indicate an alternative price based upon the approved alternative. Such alternatives will be evaluated in accordance with B17.
- B6.9 No later claim by the Contractor for an addition to the Total Bid Price because of any other changes in the Work necessitated by the use of an approved equal or an approved alternative will be considered.

B7. BID COMPONENTS

- B7.1 The Bid shall consist of the following components:
- (a) Form A: Bid;
 - (b) Form B: Prices;
 - (c) Form G1: Bid Bond and Agreement to Bond.
- B7.2 Further to B7.1, the Bidder should include the written correspondence from the Contract Administrator approving a substitute in accordance with B6.
- B7.3 All components of the Bid shall be fully completed or provided, and submitted by the Bidder no later than the Submission Deadline, with all required entries made clearly and completely.
- B7.4 The Bid shall be submitted electronically through MERX at www.merx.com.
- B7.4.1 Bids will **only** be accepted electronically through MERX.
- B7.5 Bidders are advised that inclusion of terms and conditions inconsistent with the Tender document, including the General Conditions, will be evaluated in accordance with B17.1(a).

B8. BID

- B8.1 The Bidder shall complete Form A: Bid/Proposal, making all required entries.
- B8.2 Paragraph 2 of Form A: Bid/Proposal shall be completed in accordance with the following requirements:
- (a) if the Bidder is a sole proprietor carrying on business in his/her own name, his/her name shall be inserted;
 - (b) if the Bidder is a partnership, the full name of the partnership shall be inserted;
 - (c) if the Bidder is a corporation, the full name of the corporation shall be inserted;
 - (d) if the Bidder is carrying on business under a name other than his/her own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.
- B8.2.1 If a Bid is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B8.2.
- B8.3 In Paragraph 3 of Form A: Bid/Proposal, the Bidder shall identify a contact person who is authorized to represent the Bidder for purposes of the Bid.
- B8.4 Paragraph 13 of Form A: Bid/Proposal shall be signed in accordance with the following requirements:
- (a) if the Bidder is a sole proprietor carrying on business in his/her own name, it shall be signed by the Bidder;

- (b) if the Bidder is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;
- (c) if the Bidder is a corporation, it shall be signed by its duly authorized officer or officers;
- (d) if the Bidder is carrying on business under a name other than his/her own, it shall be signed by the registered owner of the business name, or by the registered owner's authorized officials if the owner is a partnership or a corporation.

B8.4.1 The name and official capacity of all individuals signing Form A: Bid/Proposal should be entered below such signatures.

B8.5 If a Bid is submitted jointly by two or more persons, the word "Bidder" shall mean each and all such persons, and the undertakings, covenants and obligations of such joint Bidders in the Bid and the Contract, when awarded, shall be both joint and several.

B9. PRICES

B9.1 The Bidder shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.

B9.1.1 Prices stated on Form B: Prices shall not include any costs which may be incurred by the Contractor with respect to any applicable funding agreement obligations as outlined in D31. Any such costs shall be determined in accordance with D31.

B9.2 The quantities listed on Form B: Prices are to be considered approximate only. The City will use said quantities for the purpose of comparing Bids.

B9.3 The quantities for which payment will be made to the Contractor are to be determined by the Work actually performed and completed by the Contractor, to be measured as specified in the applicable Specifications.

B9.4 Payments to Non-Resident Contractors are subject to Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).

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

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

B10. DISCLOSURE

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

B10.2 The Persons are:

- (a) Darco Group Ltd. – To review staging with respect to productivity rates.

B11. CONFLICT OF INTEREST AND GOOD FAITH

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

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

- (a) other commitments;
- (b) relationships;
- (c) financial interests; or

(d) involvement in ongoing litigation;

that could or would be seen to:

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

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

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

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

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

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

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

B12. QUALIFICATION

B12.1 The Bidder shall:

- (a) undertake to be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba; and
- (b) be financially capable of carrying out the terms of the Contract; and
- (c) have all the necessary experience, capital, organization, and equipment to perform the Work in strict accordance with the terms and provisions of the Contract.

B12.2 The Bidder and any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

- (a) be responsible and not be suspended, debarred or in default of any obligations to the City. A list of suspended or debarred individuals and companies is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <https://www.winnipeg.ca/matmgt/Templates/files/debar.pdf>

B12.3 The Bidder and/or any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

- (a) have successfully carried out work similar in nature, scope and value to the Work; and
- (b) be fully capable of performing the Work required to be in strict accordance with the terms and provisions of the Contract; and
- (c) have a written workplace safety and health program if required pursuant to The Workplace Safety and Health Act (Manitoba);

B12.4 Further to B12.3(c), the Bidder shall, within five (5) Business Days of a request by the Contract Administrator, provide proof satisfactory to the Contract Administrator that the Bidder/Subcontractor has a workplace safety and health program meeting the requirements of The Workplace Safety and Health Act (Manitoba), by providing:

- (a) Written confirmation of a safety and health certification meeting SAFE Work Manitoba's SAFE Work Certified Standard (e.g., COR™ and SECOR™) in the form of:
 - (i) a copy of their valid Manitoba COR certificate and Letter of Good Standing (or Manitoba equivalency) as issued under the Certificate of Recognition (COR) Program administered by the Construction Safety Association of Manitoba or by the Manitoba Heavy Construction Association's WORKSAFELY™ COR™ Program; or
 - (ii) a copy of their valid Manitoba SECOR™ certificate and Letter of Good Standing (or Manitoba equivalency) as issued under the Small Employer Certificate of Recognition Program (SECOR™) administered by the Construction Safety Association of Manitoba or by the Manitoba Heavy Construction Association's WORKSAFELY™ COR™ Program; or
- (b) a report or letter to that effect from an independent reviewer acceptable to the City. (A list of acceptable reviewers and the review template are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>).

B12.5 The Bidder shall submit, within three (3) Business Days of a request by the Contract Administrator, proof satisfactory to the Contract Administrator of the qualifications of the Bidder and of any proposed Subcontractor.

B12.6 The Bidder shall provide, on the request of the Contract Administrator, full access to any of the Bidder's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Bidder's equipment and facilities are adequate to perform the Work.

B13. BID SECURITY

- B13.1 The Bidder shall include in its Bid Submission bid security in the form of a digital bid bond, in the amount of at least ten percent (10%) of the Total Bid Price, and agreement to bond of a company registered to conduct the business of a surety in Manitoba, in Form G1: Bid Bond and Agreement to Bond, available on The City of Winnipeg, Corporate Finance, Materials Management Division website at <https://www.winnipeg.ca/MatMgt/templates/files/eBidsecurity.pdf>.
- B13.2 Bid security shall be submitted in a digital format meeting the following criteria:
- (a) The version submitted by the Bidder must have valid digital signatures and seals;
 - (b) The version submitted by the Bidder must be verifiable by the City with respect to the totality and wholeness of the bond form, including: the content; all digital signatures and digital seals; with the surety company, or an approved verification service provider of the surety company.
 - (c) The version submitted must be viewable, printable and storable in standard electronic file formats compatible with the City, and in a single file. Allowable formats include pdf.
 - (d) The verification may be conducted by the City immediately or at any time during the life of the bond and at the discretion of the City with no requirement for passwords or fees.
 - (e) The results of the verification must provide a clear, immediate and printable indication of pass or fail regarding B13.2(a).
- B13.3 Bonds failing the verification process will not be considered to be valid and the bid shall be determined to be non-responsive in accordance with B17.1(a).
- B13.4 Bonds passing the verification process will be treated as original and authentic.
- B13.4.1 If the Bidder submits alternative bids, the bid security shall be in the amount of the specified percentage of the highest Total Bid Price submitted.
- B13.5 The bid security of the successful Bidder and the next two lowest evaluated responsive and responsible Bidders will be released by the City when a Contract for the Work has been duly formed with the successful Bidder and the contract securities are furnished as provided herein. The bid securities of all other Bidders will be released when a Contract is awarded.
- B13.6 The bid securities of all Bidders will be released by the City as soon as practicable following notification by the Contract Administrator to the Bidders that no award of Contract will be made pursuant to the Tender.

B14. OPENING OF BIDS AND RELEASE OF INFORMATION

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

B15. IRREVOCABLE BID

- B15.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 11 of Form A: Bid/Proposal.
- B15.2 The acceptance by the City of any Bid shall not release the Bids of the next two lowest evaluated responsive Bidders and these Bidders shall be bound by their Bids on such Work until a Contract for the Work has been duly formed and the contract securities have been furnished as herein provided, but any Bid shall be deemed to have lapsed unless accepted within the time period specified in Paragraph 11 of Form A: Bid/Proposal.

B16. WITHDRAWAL OF BIDS

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

B17. EVALUATION OF BIDS

- B17.1 Award of the Contract shall be based on the following bid evaluation criteria:
- (a) compliance by the Bidder with the requirements of the Tender, or acceptable deviation therefrom (pass/fail);
 - (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B12 (pass/fail);
 - (c) Total Bid Price;
 - (d) economic analysis of any approved alternative pursuant to B6.
- B17.2 Further to B17.1(a), the Award Authority may reject a Bid as being non-responsive if the Bid is incomplete, obscure or conditional, or contains additions, deletions, alterations or other irregularities. The Award Authority may reject all or any part of any Bid, or waive technical requirements or minor informalities or irregularities, if the interests of the City so require.
- B17.3 Further to B17.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in his/her Bid or in other information required to be submitted, that he/she is qualified.
- B17.4 Further to B17.1(c), the Total Bid Price shall be the sum of the quantities multiplied by the unit prices for each item shown on Form B: Prices.
- B17.4.1 Further to B17.1(a), in the event that a unit price is not provided on Form B: Prices, the City may determine the unit price by dividing the Amount (extended price) by the approximate quantity, for the purposes of evaluation and payment.
- B17.4.2 Bidders are advised that the calculation indicated in B17.4 will prevail over the Total Bid Price entered in MERX.

B18. AWARD OF CONTRACT

- B18.1 The City will give notice of the award of the Contract or will give notice that no award will be made.
- B18.2 The City will have no obligation to award a Contract to a Bidder, even though one or all of the Bidders are determined to be qualified, and the Bids are determined to be responsive.
- B18.2.1 Without limiting the generality of B18.2, the City will have no obligation to award a Contract where:
- (a) the prices exceed the available City funds for the Work;
 - (b) the prices are materially in excess of the prices received for similar work in the past;
 - (c) the prices are materially in excess of the City's cost to perform the Work, or a significant portion thereof, with its own forces;

- (d) only one Bid is received; or
- (e) in the judgment of the Award Authority, the interests of the City would best be served by not awarding a Contract.

B18.3 The Work of this Contract is contingent upon Council approval of sufficient funding in the 2021 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.

B18.4 If funding for the Work is provided by the City of Winnipeg by the Government of Manitoba and/or the Government of Canada, Bidders are advised that the terms of D31 shall immediately take effect upon confirmation of such funding, regardless of when funding is confirmed.

B18.5 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 B17.

B18.5.1 Following the award of contract, a Bidder will be provided with information related to the evaluation of his/her Bid upon written request to the Contract Administrator.

PART C - GENERAL CONDITIONS

C0. GENERAL CONDITIONS

- C0.1 The *General Conditions for Construction* (Revision 2020-01-31) are applicable to the Work of the Contract.
- C0.1.1 The *General Conditions for Construction* are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at http://www.winnipeg.ca/matmgt/gen_cond.stm
- 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) Pavement Rehabilitation & Related Works
 - (i) Salter Street from the Slaw Rebchuk Bridge north approach slabs to the Public Lane north of Selkirk Avenue
 - (ii) Salter Street from Burrows Avenue to Alfred Avenue
 - (iii) Salter Street from Redwood Avenue to Cathedral Avenue
- (b) Pavement Reconstruction & Related Works
 - (i) Salter Street from the Public Lane north of Selkirk Avenue to Burrows Avenue
 - (ii) Salter Street from Alfred Avenue to Redwood Avenue

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

- (a) Pavement Rehabilitation and Related Works
 - (i) Completion of sewer repairs
 - (ii) Installation of catch pits
 - (iii) Adjustment of drainage inlets, water valves, manholes, and utility manholes
 - (iv) Asphalt milling (50mm average thickness) from 50m south of College Street to 30m north of St. Johns Street,
 - (v) Installation of traffic signal underground conduit, bases and pits
 - (vi) Tree and stump removal
 - (vii) Salvage and re-use of paving stones
 - (viii) Full depth concrete repairs of existing slabs and joints
 - (ix) Renewal of existing curbs
 - (x) Renewal of existing sidewalks, including installation of detectable warning surface tiles
 - (xi) Planing of asphalt at tie-ins and concrete headers
 - (xii) Placement of asphalt overlay (80mm average thickness north of Dufferin Avenue and 50mm average thickness south of Dufferin Avenue)
- (b) Pavement Reconstruction and Related Works
 - (i) Removal of existing concrete pavement
 - (ii) Excavation
 - (iii) Tree and stump removal
 - (iv) Installation of subdrains
 - (v) Installation of traffic signal underground conduit, bases and pits
 - (vi) Installation of watermain and water service insulation

- (vii) Repairs to existing sewers and manholes
- (viii) Completion of mainline sewer repairs
- (ix) Placement of sub-base and base course materials
- (x) Construction of 230 mm plain dowelled concrete pavement utilizing slip-form paving equipment
- (xi) Construction of 180mm integral concrete curb
- (xii) Construction of sidewalks and sidewalk renewals
- (xiii) Reconstruction of private approaches
- (xiv) Installation of detectable warning surface tiles

D4. CONTRACT ADMINISTRATOR

D4.1 The Contract Administrator is Stantec Consulting Ltd., represented by:

Scott Suderman, C.E.T., P.Eng.
Transportation Engineer

Telephone No. 204 782-7189

Email Address Scott.Suderman@stantec.com

D4.2 At the pre-construction meeting, Scott Suderman, C.E.T., P.Eng. will identify additional personnel representing the Contract Administrator and their respective roles and responsibilities for the Work.

D5. CONTRACTOR'S SUPERVISOR

D5.1 At the pre-construction meeting, the Contractor shall identify his/her designated supervisor and any additional personnel representing the Contractor and their respective roles and responsibilities for the Work.

D5.2 At least two (2) Business Days prior to the commencement of any Work on the site, the Contractor shall provide the Contract Administrator with a phone number where the supervisor identified in D5.1 or an alternate can be contacted twenty-four (24) hours a day to respond to an emergency.

D6. NOTICES

D6.1 Except as provided for in C22.4, all notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the Contractor shall be sent to the address or facsimile number identified by the Contractor in Paragraph 2 of Form A: Bid/Proposal.

D6.2 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the City, except as expressly otherwise required in D6.3 or elsewhere in the Contract, shall be sent to the attention of the Contract Administrator identified in D4.

D6.3 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications required to be submitted or returned to the City Solicitor shall be sent to the following facsimile number:

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

D7. FURNISHING OF DOCUMENTS

- D7.1 Upon award of the Contract, the Contractor will be provided with 'issued for construction' Contract Documents electronically, including Drawings in PDF format only.

SUBMISSIONS

D8. AUTHORITY TO CARRY ON BUSINESS

- D8.1 The Contractor shall be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba, or if the Contractor does not carry on business in Manitoba, in the jurisdiction where the Contractor does carry on business, throughout the term of the Contract, and shall provide the Contract Administrator with evidence thereof upon request.

D9. SAFE WORK PLAN

- D9.1 The Contractor shall provide the Contract Administrator with a Safe Work Plan at least five (5) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract Documents, if applicable.
- D9.2 The Safe Work Plan shall be prepared and submitted in the format shown in the City's template which is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/safety/default.stm>
- D9.3 Notwithstanding B12.4 at any time during the term of the Contract, the City may, at its sole discretion and acting reasonably, require an updated COR Certificate or Annual Letter of good Standing. A Contractor, who fails to provide a satisfactory COR Certificate or Annual Letter of good Standing, will not be permitted to continue to perform any Work.

D10. INSURANCE

- D10.1 The Contractor shall provide and maintain the following insurance coverage to remain in place at all times during the performance of the Work and throughout the warranty period unless otherwise stated below:
- (a) Wrap-up liability insurance in an amount of no less than three million dollars (\$3,000,000) inclusive per occurrence and three millions dollars (\$3,000,000) general aggregate, covering bodily injury, property damage, personal injury, unlicensed motor vehicle liability, sudden and accidental pollution with 120 hour reporting, hook liability, if required, and products and completed operations consistent with industry standard insurance policy wordings. Wrap up liability insurance to also include evidence of contractual liability and cross liability clauses.
- (i) The Contractor will carry such insurance to cover the City, Contractor, Subcontractors, consultants and sub-consultants as insured's.
- (ii) Provision of this insurance is not intended in any way to relieve the Contractor from his obligations under the terms of the Contract. Specifically, losses relating to deductibles for insurance, as well as losses in excess of limits of coverage and any risk of loss that is not covered under the terms of the insurance remains with the Contractor.
- (iii) Manitoba and its Ministers, officers, employees and agents, BellMTS, Manitoba Hydro, Shaw, and Telus shall be shown as additional insured, as required by contract(s).
- (iv) Wrap-up liability insurance shall be maintained from the date of the commencement of the Work until the date of Total Performance of the work and shall include an

additional 24 months completed operations coverage which will take affect after Total Performance.

- (b) an all risks installation floater carrying adequate limits to cover all machinery, equipment, supplies and/or materials intended to enter into and form part of any installation.
- (c) 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 \$5,000,000 inclusive for loss or damage including personal injuries and death resulting from any one accident or occurrence.
- (d) Property insurance for all equipment, tools, field office and portable toilets used by the Contractor directly or indirectly in the performance of the Work on the project that may be owned, rented, leased or borrowed.

D10.2 Deductibles shall be borne by the Contractor.

D10.3 All Subcontractors performing Work on the Project shall be registered with Workers Compensation Board of Manitoba and shall provide and maintain workers compensation coverage throughout the term of the Contract, and the Contractor shall provide the Contract Administrator with evidence thereof upon request.

D10.4 All policies shall be taken out with insurers duly licensed to carry on business in the Province of Manitoba.

D10.5 The Contractor shall provide the City Solicitor with a certificate(s) of insurance for the City and Manitoba, in a form satisfactory to the City Solicitor and Manitoba, at least two (2) Business Days prior to the commencement of any Work but in no event later than the date specified in C4.1 for the return of the executed Contract.

D10.6 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.

D11. CONTRACT SECURITY

D11.1 The Contractor shall provide and maintain the performance bond and the labour and material payment bond until the expiration of the warranty period in the form of:

- (a) a performance bond of a company registered to conduct the business of a surety in Manitoba, in the form attached to these Supplemental Conditions (Form H1: Performance Bond), in the amount of fifty percent (50%) of the Contract Price; and
- (b) a labour and material payment bond of a company registered to conduct the business of a surety in Manitoba, in the form attached to these Supplemental Conditions (Form H2: Labour and Material Payment Bond), in an amount equal to fifty percent (50%) of the Contract Price.

D11.1.1 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 D11.1(b).
- D11.1.2 Digital bonds failing the verification process will not be considered to be valid and may be determined to be an event of default in accordance with C18.1. If a digital bond fails the verification process, the Contractor may provide a replacement bond (in hard copy or digital format) within seven (7) Calendar Days of the City's request or within such greater period of time as the City in its discretion, exercised reasonably, allows.
- D11.1.3 Digital bonds passing the verification process will be treated as original and authentic.
- D11.2 The Contractor shall provide the City Solicitor with the required performance and labour and material payment bonds within seven (7) Calendar Days of notification of the award of the Contract by way of an award letter and prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract Documents, if applicable.
- D11.3 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 D11.1(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.

D12. SUBCONTRACTOR LIST

- D12.1 The Contractor shall provide the Contract Administrator with a complete list of the Subcontractors whom the Contractor proposes to engage (Form J: Subcontractor List) at or prior to a pre-construction meeting, or at least 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.

D13. EQUIPMENT LIST

- D13.1 The Contractor shall provide the Contract Administrator with a complete list of the equipment which the Contractor proposes to utilize (Form K: Equipment List) at or prior to a pre-construction meeting, or at least 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.

D14. DETAILED WORK SCHEDULE

- D14.1 The Contractor shall provide the Contract Administrator with a detailed work schedule at least fifteen (15) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in the General Conditions for the return of the executed Contract Documents, as applicable.
- D14.2 The detailed work schedule shall consist of the following:
 - (a) a critical path method (C.P.M.) schedule for the Work;
 - (b) a Gantt chart for the Work based on the C.P.M. schedule; and
 - (c) a daily manpower schedule for the Workall acceptable to the Contract Administrator.
- D14.3 Further D14.2(a), the C.P.M. schedule shall clearly identify the start and completion dates of all of the major components and tasks making up the Work as well as showing those activities/tasks on the critical path.

- D14.4 Further to D14.2(b), the Gantt chart shall show the time on a weekly basis, required to carry out the Work of each trade, or major component of work. The time shall be on the horizontal axis, and the major component of work shall be on the vertical axis.
- D14.5 Further to D14.4 the Schedule shall be broken up by Phases and planned Work Sections.
- D14.6 Further to D14.2(c), the daily manpower schedule shall list the daily number of crews and crew types on the Site for each trade and Work Sections.
- D14.7 The schedule will require the Contractor to have multiple crews and crew types working concurrently in multiple areas and sections to meet the required Completion Dates.
- D14.8 Appendix 'B' Conceptual Construction Schedule is provided to assist Bidders with a baseline understanding of how they could plan the work. This schedule is considered a concept to prove the feasibility to complete the work as set out within this Tender in one construction season. It may also aid Bidder's by communicating the Work Sections and Sequence of Work. The Contractor is required to prepare their own Detailed Work Schedule and to integrate planned efficiencies as required while still meeting the Traffic Management Requirements outlines in E6. The Contractor is responsible for planning the means and methods to complete with the work within the given timeframes set within this Tender.

SCHEDULE OF WORK

D15. COMMENCEMENT

- D15.1 The Contractor shall not commence any Work until he/she is in receipt of an award letter from the Award Authority authorizing the commencement of the Work.
- D15.2 The Contractor shall not commence any Work on the Site until:
- (a) the Contract Administrator has confirmed receipt and approval of:
 - (i) evidence of authority to carry on business specified in D8;
 - (ii) evidence of the workers compensation coverage specified in C6.15;
 - (iii) the twenty-four (24) hour emergency response phone number specified in D5.2.
 - (iv) the Safe Work Plan specified in D9;
 - (v) evidence of the insurance specified in D10;
 - (vi) the contract security specified in D11;
 - (vii) the subcontractor list specified in D12;
 - (viii) the equipment list specified in D13; and
 - (ix) the detailed work schedule specified in D14.
 - (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.
- D15.3 The Contractor shall not commence the Work on the Site before April 12, 2021, and shall commence the Work on Site no later than May 10, 2021, as directed by the Contract Administrator and weather permitting.
- D15.4 The City intends to award this Contract by March 12, 2021.
- D15.4.1 If the actual date of award is later than the intended date, the dates specified for Critical Stages, Substantial Performance, and Total Performance will be adjusted by the difference between the aforementioned intended and actual dates.

D16. RESTRICTED WORK HOURS

D16.1 Further to clause 3.10 of CW 1130, the Contractor shall require written permission forty-eight (48) hours in advance from the Contract Administrator for any work to be performed between 2000 hours and 0700 hours, or on Saturdays, Sundays, Statutory Holidays and or Civic Holidays.

D17. WORK BY OTHERS

D17.1 Work by others on or near the Site will include but not necessarily be limited to:

- (a) City of Winnipeg Traffic Services – Provide sign clamps, replace any permanent signage, and paint lines;
- (b) City of Winnipeg Traffic Signals – Traffic signal loops may required decommissioning and reinstallation, bagging/unbagging of existing signal heads. Installation of Traffic Signal poles, davits, controllers and heads.
- (c) City of Winnipeg Transit – Transit will remove existing transit shelters and bus stop flags for reuse and provide signage for temporary Transit stops. The Contractor is expected to coordinate with Transit for the location of temporary stop locations and provide a safe and delineated area.
- (d) BellMTS – BellMTS has inspected most of their manholes within the project site and one roof has already been rebuilt. BellMTS has five manholes they were unable to inspect however it is anticipated they are in good condition as the system manholes upstream and downstream are in good condition. There are two manholes that require roof rebuilds; MH3A5 (near Flora in west gutter lane) and MH3A6 (on Stella outside of Salter lanes). The Contractor is expected to cooperate with BellMTS.

D18. SEQUENCE OF WORK

D18.1 Further to C6.1, the sequence of work shall be as follows:

D18.1.1 The Work shall be divided into three (3) Stages. Each Phase shall be subdivided into multiple work sections. Sections are further subdivided into major items of work. Suggested Works Section include:

- (a) Section 1 – North expansion joint of the Slaw Rebchuk Bridge to Selkirk Avenue, inclusive of the Selkirk Avenue Intersection, as part of Stage 2.
- (b) Section 2 – Selkirk Avenue to Redwood Avenue which include the reconstruction areas, as part of Stage 1.
- (c) Section 3 – Redwood Avenue to Cathedral Avenue, as part of Stage 1.

The Contractor can elect to increase Work Sections as required to meet the Substantial Completion Date for concurrent operations. Sections 2 and Section 3 are expected to be concurrent operations. These sections are suggested to be the in the first stage to accommodate the advanced saw-cutting as part of Stage 0.

D18.1.2 Further to D18.1.1, Work to be completed in Stage 2 cannot begin until Stage 1 has been accepted by the Contract Administrator and in addition to the follow exceptions.

- (a) Concrete patching work in Stage 2 may commence earlier, up to five (5) Working Days prior to completion of Stage 1.
- (b) Completion of Stage 1 must include completion of the mainline asphalt overlay in Section 2 and Section 3.
- (c) The Contractor's asphalt mainline paving methodology must be presented as part of the detailed Work Schedule as required in D14 and does not have to necessarily follow the Sequence of Work as outlined in this Tender, to the satisfaction of the Contract Administrator.

- (d) Side street tie-ins for Stage 1 do not have to be complete prior to commencement of Stage 3, but must adhere to the Critical Stage in D19.

D18.1.3 **Stage 0** – Underground Works and Advanced Saw-cutting for Stage 1

- (i) The intention of Stage 0 is to allow the Contractor some time to perform specific tasks ahead of the official start date to maximum productivity when all required crews are fully mobilized. The Contractor will be permitted ten (10) Working Days in advance of the start date to perform various tasks which may include:
- ◆ Advancing the saw-cutting for Section 2 and 3
 - ◆ Sewer repairs and new catch basin and catch basin lead installations for Section 1, 2 and 3.
 - ◆ Asphalt Milling – if asphalt milling is not feasible at this time it shall be considered a concurrent task in Stage 1.
 - ◆ Traffic Signals works.

D18.1.4 **Stage 1** – Salter Street from Selkirk Avenue to Cathedral Avenue.

(a) **Section 2 & 3** – Northbound Lanes and Sidewalk

- (i) Planing of asphalt and concrete where required;
- (ii) Concrete pavement slab and joint work and adjustments to pavement structures and appurtenances;
- (iii) Pavement removal, excavation, sub-base and base construction;
- (iv) Placement of new concrete pavement with integral curb;
- (v) Traffic Signal relocations;
- (vi) Curb and sidewalk renewals;
- (vii) Placing topsoil and finish grading.

(b) **Section 2 & 3** – Southbound Lanes and Sidewalk

- (i) Planing of asphalt and concrete where required;
- (ii) Concrete pavement slab and joint work and adjustments to pavement structures and appurtenances;
- (iii) Pavement removal, excavation, sub-base and base construction;
- (iv) Placement of new concrete pavement with integral curb;
- (v) Traffic Signal relocations;
- (vi) Curb and sidewalk renewals;
- (vii) Placing topsoil and finish grading.

(c) **Section 2 & 3** – All Lanes, Mainline Asphalt Overlay

- (i) Placing of asphalt mainline
- (ii) Completion of asphalt tie-ins
- (i) All asphaltic concrete work shall be performed using a lane-at-a-time method (see E6 for minimum requirements of traffic lanes to be left open at various times).
- (ii) At the end of any day, there shall be no drop-off along any longitudinal joint, excepting the longitudinal joint between the gutter and approaches.

D18.1.5 Immediately following the completion of the asphaltic concrete works of Stage 1, the Contractor shall clean up the Site and remove all plant, surplus material, waste and debris, other than that left by the City or other Contractors.

D18.1.6 **Stage 2** – Salter Street from the Slaw Rebchuk bridge to the north side of Selkirk Avenue, including the work on Selkirk Avenue, west of Salter Street.

(a) **Phase I** – Southbound and Northbound Gutter Lanes

- (i) Concrete pavement slab and joint work and adjustments to pavement structures and appurtenances;

- (ii) Traffic signal relocations, and
- (iii) Curb renewals, concrete boulevard works and sidewalk renewals.
- (b) **Phase II** – Southbound and Northbound Median Lanes
 - (i) Shift traffic at median crossover;
 - (ii) Concrete pavement slab and joint work and adjustments to pavement structures and appurtenances;
 - (iii) Traffic signal relocations, and
 - (iv) Curb renewals, concrete boulevard works and sidewalk renewals.
- (c) **Phase III** – All Lanes, Asphalt Overlay
 - (i) Placement of asphalt overlay.
 - (ii) Completion of asphalt tie-ins.
 - (iii) All asphaltic concrete work shall be performed using a lane-at-a-time method (see E6 for minimum requirements of traffic lanes to be left open at various times).
 - (iv) At the end of any day, there shall be no drop-off along any longitudinal joint, excepting the longitudinal joint between the gutter and approaches.

D19. CRITICAL STAGES

- D19.1 The Contractor shall achieve critical stages of the Work in accordance with the following requirements:
- (a) During Stage 1, following completion of the mainline concrete pavement and mainline asphalt paving, the Contractor shall complete and open each street and alley within fifteen (15) Working Days unless otherwise approved by the Contract Administrator in writing. Open is defined as no temporary traffic control is present and the approach is fully functional.
- D19.2 Further D19.1(a), Stage 2 may commence in advance of meeting this Critical Stage.
- D19.3 When the Contractor considers the Work associated with these critical stages to be completed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Completion. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be re-inspected.
- D19.4 The date on which these critical stages of 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 these critical stages has been achieved.

D20. SUBSTANTIAL PERFORMANCE

- D20.1 The Contractor shall achieve Substantial Performance by November 5th, 2021.
- D20.2 When the Contractor considers the Work to be substantially performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Substantial Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be re-inspected.
- D20.3 The date on which the Work has been certified by the Contract Administrator as being substantially performed to the requirements of the Contract through the issue of a certificate of Substantial Performance is the date on which Substantial Performance has been achieved.

D21. TOTAL PERFORMANCE

- D21.1 The Contractor shall achieve Total Performance by November 12th, 2021.

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

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

D22. LIQUIDATED DAMAGES

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

- (a) Critical Stage – Completion and opening of each intersecting street and alley within Phase 1 – Two Thousand dollars (\$2,000);
- (b) Substantial Performance – Six Thousand dollars (\$6,000);
- (c) Total Performance – Two Thousand dollars (\$2,000).

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

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

D23. ACCELERATED COMPLETION

DESCRIPTION

D23.1 General

D23.1.1 This Supplemental Condition shall cover the accelerated completion for this contract.

D23.2 Acceleration of Work

D23.2.1 At no risk to the City, the Contractor at its own initiative, means, and expense, may undertake to complete the Works for this Contract to facilitate the safe reopening of traffic and pedestrians in advance of the stipulated Calendar day as specified in D20.

D23.2.2 Reopening shall occur when all Work items listed in D3 are complete, including boulevard restoration, streetscaping, asphalt tie-ins and Site cleanup. Placement of sod in some areas may be exempt with written approval by the Contract Administrator.

D23.2.3 In recognition of the fact that an early completion of the Works is of benefit to the City, the City will compensate the Contractor for said early completion on a per diem unit price basis, as hereinafter set out, provided that the City will not be liable to pay for any period of acceleration in excess of fifteen (15) days, not including Saturdays, Sundays, or Statutory Holidays .

D23.2.4 It is noted that certain delays of the Work are normal, due to Site conditions, necessary layout and dimensional changes. The Contract Administrator will attempt to resolve each situation as soon as possible. The Contractor is advised that no extension to the date listed in D19 will be given for events of this sort which cause construction delay and are resolved within 48 hours of the requirement of change becoming know to both the Contractor and the Contract Administrator.

MEASUREMENT AND PAYEMENT

D23.3 Method of Measurement

D23.3.1 Subject to clause D22.3 hereof, accelerated completion will be measured on a unit basis per diem. The number of days to be paid for will be the total number of days, not including Saturdays, Sundays, or Statutory Holidays, with which all of the Work is complete and is safely reopened to vehicular and pedestrian traffic in advance of the date specified in D20 with all specified Works listed in D3 completed and acceptable to the Contract Administrator.

D23.4 Basis of Payment

D23.4.1 Subject to clause D22.3 hereof, accelerated completion will be paid for at the Unit Price per diem specified hereinafter for "Accelerated Completion" which price shall be payment in full for performing all operations undertaken and all other items incidental to the Work included in this Specification. Unit Price per diem = three thousand dollars (\$3,000).

D23.4.2 Payment of this item is not identified on Form B:Prices, and shall not be included thereon. If accelerated completion does occur as specified herein, then payment will be made for this item as an addition to the Contract.

D24. COVID-19 SCHEDULE DELAYS

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

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

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

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

D24.5 The Work schedule, including the durations identified in D19 to D21 where applicable, will be adjusted to reflect delays accepted by the Contract Administrator. No additional payment will be made for adjustment of schedules except where seasonal work, not previously identified in the Contract, is carried over to the following construction season.

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

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

D25. SCHEDULED MAINTENANCE

- D25.1 The Contractor shall perform the following scheduled maintenance in the manner and within the time periods required by the Specifications:
- (a) Reflective crack maintenance as specified in CW-3250;
 - (b) Sodding as specified in CW 3510;
- D25.2 Determination of Substantial Performance and Total Performance shall be exclusive of scheduled maintenance identified herein. All scheduled maintenance shall be completed prior to the expiration of the warranty period. Where the scheduled maintenance cannot be completed during the warranty period, the warranty period shall be extended for such period of time as it takes the Contractor to complete the scheduled maintenance.

CONTROL OF WORK

D26. JOB MEETINGS

- D26.1 Regular weekly job meetings will be held at the Site. These meetings shall be attended by a minimum of one representative of the Contract Administrator, one representative of the City and one representative of the Contractor. Each representative shall be a responsible person capable of expressing the position of the Contract Administrator, the City and the Contractor respectively on any matter discussed at the meeting including the Work schedule and the need to make any revisions to the Work schedule. The progress of the Work will be reviewed at each of these meetings.
- D26.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he/she deems it necessary.

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

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

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

- D28.1 Further to B12.4, the Contractor/Subcontractor must, throughout the term of the Contract, have a Workplace Safety and Health Program meeting the requirements of The Workplace Safety and Health Act (Manitoba). At any time during the term of the Contract, the City may, at its sole discretion and acting reasonably, require updated proof of compliance, as set out in B12.4.

MEASUREMENT AND PAYMENT

D29. PAYMENT

- D29.1 Further to C12, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

WARRANTY

D30. WARRANTY

- D30.1 Notwithstanding C13.2, the warranty period shall begin on the date of Total Performance and shall expire two (2) years for concrete pavement reconstruction sections thereafter unless extended pursuant to C13.2.1 or C13.2.2, in which case it shall expire when provided for thereunder.

- D30.2 Notwithstanding C13.2, the warranty period shall begin on the date of Total Performance and shall expire one (1) year for major rehabilitation sections thereafter unless extended pursuant to C13.2.1 or C13.2.2, in which case it shall expire when provided for thereunder.
- D30.3 Notwithstanding C13.2, the Contract Administrator may permit the warranty period for a portion or portions of the Work to begin prior to the date of Total Performance if a portion of the Work cannot be completed because of unseasonable weather or other conditions reasonably beyond the control of the Contractor but that portion does not prevent the balance of the Work from being put to its intended use.
- D30.3.1 In such case, the date specified by the Contract Administrator for the warranty period to begin shall be substituted for the date specified in C13.2 for the warranty period to begin.

THIRD PARTY AGREEMENTS

D31. FUNDING AND/OR CONTRIBUTION AGREEMENT OBLIGATIONS

- D31.1 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.
- D31.2 Further to D31.1, in the event that the obligations in D31 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.
- D31.3 For the purposes of D31:
- (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.
- D31.4 Modified Insurance Requirements
- D31.4.1 If not already required under the insurance requirements identified in D10, the Contractor will be required to provide wrap-up liability insurance in an amount of no less than two million dollars (\$2,000,000) inclusive per occurrence. Such policy will be written in the joint names of the City, Contractor, Consultants and all sub-contractors and sub-consultants and include twelve (12) months completed operations. The Government of Manitoba and its Ministers, officers, employees, and agents shall be added as additional insureds.
- D31.4.2 If not already required under the insurance requirements identified in D10, 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.
- D31.4.3 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.
- D31.4.4 Further to **Error! Reference source not found.**, 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.

D31.4.5 All policies must be taken out with insurers licensed to carry on business in the Province of Manitoba.

D31.5 Indemnification By Contractor

D31.5.1 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.

D31.6 Records Retention and Audits

D31.6.1 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.

D31.6.2 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 D31.6.1 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.

D31.7 Other Obligations

D31.7.1 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.

D31.7.2 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.

D31.7.3 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.

D31.7.4 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.

FORM H1: PERFORMANCE BOND
(See D11)

KNOW ALL MEN BY THESE PRESENTS THAT

_____ ,
(hereinafter called the "Principal"), and

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

_____ dollars (\$_____)

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

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

TENDER NO. 439-2020

2021 REGIONAL STREET RENEWAL PROGRAM – SALTER STREET REHABILITATION – SLAW
REBCHUK BRIDGE TO CATHEDRAL AVENUE

which is by reference made part hereof and is hereinafter referred to as the "Contract".

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

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

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

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

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

_____ day of _____, 20_____ .

SIGNED AND SEALED
in the presence of:

(Witness as to Principal if no seal)

(Name of Principal)

Per: _____ (Seal)

Per: _____

(Name of Surety)

By: _____ (Seal)
(Attorney-in-Fact)

FORM H2: LABOUR AND MATERIAL PAYMENT BOND
(See D11)

KNOW ALL MEN BY THESE PRESENTS THAT

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

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

_____ dollars (\$_____)

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

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

TENDER NO. 439-2020

2021 REGIONAL STREET RENEWAL PROGRAM – SALTER STREET REHABILITATION – SLAW
REBCHUK BRIDGE TO CATHEDRAL AVENUE

which is by reference made part hereof and is hereinafter referred to as the "Contract".

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

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

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

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

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

_____ day of _____, 20_____ .

SIGNED AND SEALED
in the presence of:

(Witness as to Principal if no seal)

(Name of Principal)

Per: _____ (Seal)

Per: _____

(Name of Surety)

By: _____ (Seal)
(Attorney-in-Fact)

FORM J: SUBCONTRACTOR LIST
(See D12)

2021 REGIONAL STREET RENEWAL PROGRAM – SALTER STREET REHABILITATION – SLAW
REBCHUK BRIDGE TO CATHEDRAL AVENUE

<u>Portion of the Work</u>	<u>Name</u>	<u>Address</u>
SURFACE WORKS		
Supply of Materials:		
Base Course and Sub-Base Course		
Concrete		
Asphalt		
Geotextiles		
<i>Installation/Placement</i>		
Excavation		
Base Course and Sub-Base Course		
Concrete		
Asphalt		
Sod		
UNDERGROUND WORKS		
<i>Supply of Materials</i>		
Land Drainage Sewer		
Catch Basins/Manhole		
Frames and Covers		
<i>Installation/Placement</i>		
Land Drainage Sewer		
Catch Basins/Manholes		
MISCELLANEOUS		
Tree Removal		

FORM K: EQUIPMENT
(See D13)

2021 REGIONAL STREET RENEWAL PROGRAM – SALTER STREET REHABILITATION – SLAW
REBCHUK BRIDGE TO CATHEDRAL AVENUE

<p>1. Category/type: Excavation</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p>
<p>2. Category/type: Sub-base and Base Construction</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p>
<p>3. Category/type: Asphalt Paving (Include pavers & rollers)</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p>

FORM K: EQUIPMENT
(See D13)

2021 REGIONAL STREET RENEWAL PROGRAM – SALTER STREET REHABILITATION – SLAW
REBCHUK BRIDGE TO CATHEDRAL AVENUE

<p>4. Category/type: Concrete Paving (slip form pavers)</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p>
<p>5. Category/type: Hauling Trucks</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p>
<p>6. Category/type: Other</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p>

PART E - SPECIFICATIONS

GENERAL

E1. APPLICABLE SPECIFICATIONS AND DRAWINGS

- E1.1 These Specifications shall apply to the Work.
- E1.2 *The City of Winnipeg Standard Construction Specifications* in its entirety, whether or not specifically listed on Form B: Prices, shall apply to the Work.
- E1.2.1 *The City of Winnipeg Standard Construction Specifications* is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/Spec/Default.stm>
- E1.2.2 The version in effect three (3) Business Days before the Submission Deadline shall apply.
- E1.2.3 Further to C2.4(d), Specifications included in the Tender shall govern over *The City of Winnipeg Standard Construction Specifications*.
- E1.3 Bidders are reminded that requests for approval of substitutes as an approved equal or an approved alternative shall be made in accordance with B6. In every instance where a brand name or design specification is used, the City will also consider approved equals and/or approved alternatives in accordance with B6.
- E1.4 The following are applicable to the Work:

<u>Specification No.</u>	<u>Specification Title</u>
	Table of Contents
2130	Gravity Sewers
2140	Sewer and Manhole Cleaning
2145	Sewer and Manhole Inspection
3110	Sub-Grade, Sub-Base and Base Course Construction
3120	Installation of Sub Drains
3210	Adjustment of Pavement and Boulevard Structures
3230	Full-Depth Patching of Existing Slabs and Joints
3235	Renewal of Existing Miscellaneous Concrete Slabs
3240	Renewal of Existing Curbs
3250	Joint and Crack Maintenance
3310	Portland Cement Concrete Pavement Works
3325	Portland Cement Concrete Sidewalk
3326	Detectable Warning Tiles
3335	Installation of Interlocking Pavement Stones on a Lean Concrete Base
3410	Asphaltic Concrete Pavement Works
3450	Planing of Pavement
3510	Sodding
3520	Seeding
3620	Installation of Underground Traffic Signal Services

<u>Drawing No.</u>	<u>Drawing Name/Title</u>	<u>Drawing (Original) Sheet Size</u>
	Cover Sheet	
P-3532-1	COVER PAGE, DRAWING LIST AND SITE LOCATION MAP	A1
P-3532-2	SALTER STREET - CONCRETE PAVEMENT, CURB AND SIDEWALK REPAIRS - SLAW REBCHUK BRIDGE TO STA 2+280	A1

<u>Drawing No.</u>	<u>Drawing Name/Title</u>	<u>Drawing (Original) Sheet Size</u>
P-3532-3	SALTER STREET - CONCRETE PAVEMENT, CURB AND SIDEWALK REPAIRS - STA 2+280 TO CATHERDRAL AVENUE	A1
P-3532-4	SALTER AVENUE - HORIZONTAL GEOMETRY - SELKIRK AVENUE TO ALFRED AVENUE	A1
P-3532-5	SALTER STREET - SLAW REBCHUK BRIDGE TO STA 1+350	A1
P-3532-6	SALTER STREET - STA 1+350 TO STA 1+450	A1
P-3532-7	SALTER STREET - STA 1+450 TO STA 1+580	A1
P-3532-8	SALTER STREET - STA 1+580 TO STA 1+960	A1
P-3532-9	SALTER STREET - STA 1+960 TO STA 1+710	A1
P-3532-10	SALTER STREET - STA 1+710 TO STA 1+840	A1
P-3532-11	SALTER STREET - STA 1+840 TO STA 1+970	A1
P-3532-12	SALTER STREET - STA 1+970 TO STA 2+100	A1
P-3532-13	SALTER STREET - STA 2+100 TO STA 2+230	A1
P-3532-14	SALTER STREET - STA 2+230 TO STA 2+360	A1
P-3532-15	SALTER STREET - STA 2+360 TO STA 2+490	A1
P-3532-16	SALTER STREET - STA 2+490 TO STA 2+620	A1
P-3532-17	SALTER STREET - STA 2+620 TO STA 2+750	A1
P-3532-18	SALTER STREET - STA 2+750 TO STA 3+010	A1
P-3532-19	SALTER STREET - STA 3+010 TO STA 3+130	A1
P-3532-20	SALTER STREET - STA 3+130 TO CATHEDRAL AVENUE	A1
P-3532-21	SALTER STREET - STA 1+860 to STA 2+400 - CONCRETE PAVEMENT JOINT LAYOUT	A1
P-3532-22	SALTER STREET - UNDERGROUND INFRASTRUCTURE - STA 1+250 TO STA 1+550	A1
P-3532-23	SALTER STREET - UNDERGROUND INFRASTRUCTURE - STA 1+550 TO STA 1+850	A1
P-3532-24	SALTER STREET - UNDERGROUND INFRASTRUCTURE - STA 1+850 TO STA 2+175	A1
P-3532-25	SALTER STREET - UNDERGROUND INFRASTRUCTURE - STA 2+175 TO STA 2+450	A1
P-3532-26	SALTER STREET - UNDERGROUND INFRASTRUCTURE - STA 2+450 TO STA 2+750	A1
P-3532-27	SALTER STREET - UNDERGROUND INFRASTRUCTURE - STA 2+750 TO STA 3+050	A1
P-3532-28	SALTER STREET - UNDERGROUND INFRASTRUCTURE - STA 3+050 TO BANNERMAN AVENUE	A1
S-1001	PEDESTRIAN CORRIDOR - FLORA AVE. & SALTER ST.	A1
S-1171	TRAFFIC SIGNALS REDWOOD AVE. & SALTER ST.	A1
S-1187	TRAFFIC SIGNALS MAGNUS ACE. & SALTER ST.	A1
S-1188	TRAFFIC SIGNALS MOUNTAIN AVE. & SALTER ST.	A1
S-1189	TRAFFIC SIGNALS SALTERS ST. & SELKIRK AVE.	A1
S-1190	TRAFFIC SIGNALS BURROWS AVE. & SALTER ST.	A1
S-1259	TRAFFIC SIGNALS MACHRAY AVE. & SALTER ST.	A1
S-1527	TRAFFIC SIGNALS DUFFERIN AVE. & SALTER ST.	A1
S-2040	PEDESTRIAN CORRIDOR CHURCH AVE. & SALTER ST.	A1

E2. GEOTECHNICAL REPORT

- E2.1 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'.

E3. OFFICE FACILITIES

- E3.1 The Contractor shall supply office facilities meeting the following requirements:
- (a) The field office shall be for the exclusive use of the Contract Administrator.
 - (b) The building shall be conveniently located near the site of the Work.
 - (c) The building shall have a minimum floor area of 25 square metres, 2.4m with two windows for cross ventilation and a door entrance with a suitable lock.
 - (d) The building shall be suitable for all weather use. It shall be equipped with an electric heater and air conditioner so that the room temperature can be maintained between either 16-18°C or 24-25°C.
 - (e) The building shall be adequately lighted with fluorescent fixtures and have a minimum of three wall outlets.
 - (f) The building shall be furnished with one drafting table, table 3 x 12m, one stool and a minimum of 12 chairs.
 - (g) A portable toilet shall be located near the field office building. The toilet shall have a locking door and be for the exclusive use of the Contract Administrator and other personnel from the City.
 - (h) The field office building and the portable toilet shall be cleaned on a weekly basis immediately prior to each site meeting. The Contract Administrator may request additional cleaning when he/she deems it necessary.
 - (i) The Contractor shall supply one refrigerator and one microwave.
 - (j) The Contractor shall supply a water cooler and stocked water supply.
 - (k) The building shall be furnished with a high-speed internet connection for use by the Contract Administrator including all related hardware and software to enable e-mail communications for the duration of the contract. The internet shall be capable of running a minimum of four laptops on an internet connection simultaneously
- E3.2 The Contractor shall be responsible for all installation and removal costs, all operating costs, and the general maintenance of the office facilities.
- E3.3 The office facilities will be provided from the date of the commencement of the Work to the date of Total Performance.

E4. PROTECTION OF EXISTING TREES

- E4.1 The Contractor shall take the following precautionary steps to prevent damage from construction activities to existing boulevard trees within the limits of the construction area:
- (a) The Contractor shall not stockpile materials and soil or park vehicles and equipment on boulevards within 2 metres of trees.
 - (b) Trees identified to be at risk by the Contract Administrator are to be strapped with 25 x 100 x 2400mm wood planks, or suitably protected as approved by the Contract Administrator.
 - (c) Excavation shall be performed in a manner that minimizes damage to the existing root systems. Where possible, excavation shall be carried out such that the edge of the excavation shall be a minimum of 1.5 times the diameter (measured in inches), with the outcome read in feet, from the closest edge of the trunk. Where roots must be cut to facilitate excavation, they shall be pruned neatly at the face of excavation.
 - (d) Operation of equipment within the dripline of the trees shall be kept to the minimum required to perform the work required. Equipment shall not be parked, repaired, refuelled; construction materials shall not be stored, and earth materials shall not be stockpiled within the driplines of trees. The dripline of a tree shall be considered to be the ground surface

directly beneath the tips of its outermost branches. The Contractor shall ensure that the operations do not cause flooding or sediment deposition on areas where trees are located.

- (e) Work on-site shall be carried out in such a manner so as to minimize damage to existing tree branches. Where damage to branches does occur, they shall be neatly pruned.

E4.2 All damage to existing trees caused by the Contractor's activities shall be repaired to the requirements and satisfaction of the Contract Administrator and the City Forester or his/her designate.

E4.3 No separate measurement or payment will be made for the protection of trees.

E4.4 Except as required in clause E4.1(c) and E4.1(e), Elm trees shall not be pruned at any time between April 1 and July 31.

E5. TRAFFIC CONTROL

E5.1 Further to clauses 3.6, 3.7 and 3.8 of CW 1130:

- (a) Where directed by the Contract Administrator, the Contractor shall construct and maintain temporary asphalt ramps to alleviate vertical pavement obstructions such as manholes and planing drop-offs to the satisfaction of the Contract Administrator. Payment shall be in accordance with CW3410.
- (b) In accordance with the Manual of Temporary Traffic Control on City Streets (MTTC), the Contractor ("Construction Agency" in the manual) shall be responsible for placing, maintaining and removing the appropriate temporary traffic control devices as specified by the MTTC 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.

E5.2 Notwithstanding E5.1, in accordance with the MTTC, the Contract Administrator shall make arrangements with the **Traffic Services Branch of the City of Winnipeg** to place, maintain, and remove all **regulatory signs** and traffic control devices authorized and/or required by the Traffic Management Branch in the following situations:

- (a) Parking restrictions,
- (b) Stopping restrictions,
- (c) Turn restrictions,
- (d) Diamond lane removal,
- (e) Full or directional closures on a Regional Street,
- (f) Traffic routed across a median,
- (g) 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.
- (h) Approved Designated Construction Zones with a temporary posted speed limit reduction. Traffic Services will be responsible for placing all of the advance signs and 'Construction Ends' (TC-4) signs. The Contractor is still responsible for all other temporary traffic control including but not limited to barricades, barrels and tall cones.

E5.2.1 An exception to E5.2 is the 'KEEP RIGHT/KEEP LEFT' sign (RB-25 / RB-25L) which shall be supplied, installed, and maintained by the Contractor at their own expense.

E5.2.2 Further to E5.2, where the Contract Administrator has determined that the services of the Traffic Services Branch are required, the City shall bear the costs associated with the placement of temporary traffic control devices by the Traffic Services Branch of the City of Winnipeg in connection with the works undertaken by the Contractor.

E6. TRAFFIC MANAGEMENT

E6.1 Further to clause 3.7 of CW 1130:

- (a) Single lane closures on intersecting and/or adjoining Regional Streets shall only be permitted during non-peak periods when required for construction activities when approved by the Traffic Management Branch. Storage/parking of materials, equipment or vehicles is not permitted on Regional Streets at any time unless approved by the Contract Administrator, in consultation with the Traffic Management Branch.

E6.2 Stage I, from the north side of Selkirk Avenue to Cathedral Avenue.

E6.2.1 Maintain one lane of northbound traffic for the duration of Stage I from Selkirk Avenue to Cathedral Avenue.

E6.2.2 It is anticipated the corresponding cross streets can be closed through the reconstruction sections. William Whyte School required right-in and right-out access to and from either Manitoba Ave or Magnus Ave on Salter St. during school season.

E6.2.3 Intersecting local street, median opening and private approach access shall be maintained at all times unless joint/slab repairs or planing/paving operations require temporary closure.

E6.2.4 Traffic on intersecting regional/collector streets (Burrows Avenue, Redwood Avenue, and Mountain Avenue) shall be maintained at all times unless planing/paving operations require temporary complete closures. Temporary complete closures shall be no longer than 10 minutes during asphalt planing/paving operations and shall be completed during off peak hours.

E6.2.5 Flag persons may be necessary to maintain the flow of traffic during certain work operations.

E6.2.6 Should the Contractor be unable to maintain pedestrian or vehicular access to a residence or business, he/she shall review the planned disruption with the business or residence and the Contract Administrator, and take reasonable measures to minimize the impact. The Contractor shall provide a minimum of 24 hours notification to the affected residence or business and the Contract Administrator, prior to disruption of access.

E6.2.7 Sidewalks must be maintained on one side of the road at all times.

E6.3 Stage 2, from the Slaw Rebchuk Bridge to the north side of Selkirk Avenue

E6.3.1 One lane in each direction shall be maintained at all times, unless otherwise approved by the Contract Administrator in writing or noted in this Tender.

E6.3.2 It is expected that the Contractor will work on both directions of the road concurrently or two lanes at a time.

E6.3.3 Pedestrians must be accommodated on both sides of the road at all times south of the Selkirk intersection. One pedestrian crossing in the north-south direction and one in the east-west direction shall be maintained at the signalized intersections at all times.

E6.3.4 Up to one week of overlap between Stage 1 and Stage 2 is permitting to start concrete repairs on Stage 2 while asphalt is being completed on Stage 1.

E6.3.5 It is anticipated that the intersection with Selkirk Ave and Dufferin Ave will occur in a staged form, quadrant by quadrant. Turning restrictions for larger vehicles will be implemented to maximize the Contractor's work area.

E6.3.6 Between Selkirk Avenue and Dufferin Avenue, the Contractor is permitted to have two weekends for full closures to complete the concrete placement for the road patches. The Contractor must provide flag persons at either intersection to permit Transit and emergency access. If Transit and Emergency services are detoured during these times, flag persons are still required. Two weeks written notice is required by the Contractor for approval.

- E6.4 Ambulance/emergency vehicle access must be maintained at all times.
- E6.5 The Contractor will be responsible for staging the work to provide temporary off-line transit stops and reasonable access to loading zones within the construction area, as required.

E7. REFUSE AND RECYCLING COLLECTION

- E7.1 While access to refuse and/or recycling collection vehicles is restricted, on collection day(s) the Contractor shall move all of the affected property owners refuse and/or recycling materials to a nearby common area, prior to an established time, in accordance with E7.3 to permit the normal collection vehicles to collect the materials. Immediately following recycling collection the Contractor shall return recycling receptacles to the addresses marked on the receptacles.
- E7.2 In addition to E7.1, there are approximately 6 large refuse bins within the limits of the project that will have to be moved for City of Winnipeg Access on at a minimum, once weekly.
- E7.3 Collection Schedule:

Collection Day(s): **Tuesday and Fridays, depending on street**

Collection Time: **Varies**

Common Collection Area: **Adjacent Side Street or Back Lane**

- E7.4 No measurement or payment will be made for the work associated with this specification.

E8. PEDESTRIAN SAFETY

- E8.1 During the project, a temporary snow fence shall be installed adjacent to all open excavations and construction activities. The Contractor shall be responsible for maintaining the snow fence in a proper working condition. No measurement for payment shall be made for this work.
- E8.2 Where there are drop offs from new curbs ramps prior to asphalt overlay, or when a curb ramp needs to be temporarily relocated, the Contractor shall install and maintain asphalt ramps. These shall be measured and paid for under the contract unit price for "Asphalt Tie-ins and Approaches". The Contract Administrator may approve the use of granular base course if asphalt is deemed not practical in the reconstruction areas, such as to maintain the Magnus Avenue pedestrian corridor.

E9. WATER OBTAINED FROM THE CITY

- E9.1 Further to clause 3.7 of CW 1120, the Contractor shall pay for all costs, including sewer charges, associated with obtaining water from the City in accordance with the Waterworks and Sewer By-laws.

E10. SURFACE RESTORATIONS

- E10.1 Further to clause 3.3 of CW 1130, when Total Performance is not achieved in the year the Contract is commenced, the Contractor shall temporarily repair any Work commenced and not completed to the satisfaction of the Contract Administrator. The Contractor shall maintain the temporary repairs in a safe condition as determined by the Contract Administrator until permanent repairs are completed. The Contractor shall bear all costs associated with temporary repairs and their maintenance.

E11. INFRASTRUCTURE SIGNS

- E11.1 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

E12. BONDING AGENT

DESCRIPTION

- E12.1 Further to CW 3230 – R8, this specification covers the installation of bonding agent to be used for bonding tie bars and dowels into hardened concrete.

MATERIALS

- E12.2 Sika AnchorFix – 3001 – High-strength, high-load and low-voc, pure epoxy anchoring adhesive with extended working time, or equivalent product approved by the Contract Administrator.

CONSTRUCTION METHODS

- E12.3 Follow manufacturers instructions for the installation of bonding agent.

MEASUREMENT AND PAYMENT

- E12.4 No measurement for payment will be made for performing all supply and operations herein described and shall be considered incidental to drilled tie-bar and/or dowel installation.

E13. TREE AND STUMP REMOVAL

DESCRIPTION

- E13.1 General

- E13.1.1 Further to CW 3010 and the City of Winnipeg “Tree Removal Guidelines”, this specification shall cover the removal of trees and stumps as specified on the Drawings and as directed by the Contract Administrator.

CONSTRUCTION METHODS

- E13.2 Remove trees and stumps in accordance with CW 3010.

MEASUREMENT AND PAYMENT

- E13.3 Tree removal will be measured on a unit basis and will be paid for at the Contract Unit Price per unit for “Tree Removal” and “Stump Removal” which price shall be payment in full for performing all operations herein described and all other items incidental to the Work included in this Specification and accepted by the Contract Administrator.

E14. CONCRETE SIDEWALK WITH BLOCKOUTS

DESCRIPTION

- E14.1 Further to CW 3325 – R5, this specification will cover the installation of concrete sidewalk containing block outs for interlocking stone pavers or asphalt as identified on the drawings, including areas under paving patterns.

- E14.2 In reference to the drawings, this work is primarily located at the short section of slab replacement on Selkirk Avenue, west of Salter Street.

- E14.3 Referenced Standard Construction Specifications

(a) CW 3325 – Portland Cement Concrete Sidewalk – R5

(b) CW 3310 – Portland Cement Concrete Pavement Works – R17

MATERIALS

E14.4 Concrete mix design shall comply with CW 3310

E14.5 All other materials as per CW 3310.

CONSTRUCTION METHODS

E14.6 Construction as per Contract Drawings and as per CW 3310 and CW3325.

E14.7 Block outs for all paving patterns, paving fields, and asphalt overlays in sidewalk to be constructed as per the Drawings. All forming is incidental to the unit price Bid for this specification.

E14.8 Any thickened edges of sidewalk will be incidental to the unit price Bid for the concrete sidewalk.

MEASUREMENT AND PAYMENT

E14.9 Supply and Installation of concrete sidewalk with block outs for paving stones will be measured on an area basis and paid for at the Contract Unit Price for "100 mm Concrete Sidewalk with Block Outs for Paving Stones". The area to be paid for shall be the total number of square metres formed and placed in accordance with this Specification and as measured and accepted by the Contract Administrator.

BASIS OF PAYMENT

E14.10 Add the following to section 13:

E14.10.1 Further to CW 3330 – R5, this specification will cover the salvage and installation of interlocking paving stones, as identified on the drawings.

E15. INSTALLATION OF INTERLOCKING PAVING STONES

DESCRIPTION

E15.1 General

E15.1.1 Further to CW 3330 – R5, this specification will cover the salvage and installation of interlocking paving stones, as identified on the drawings.

E15.1.2 Referenced Standard Construction Specifications

(a) CW 3330 – Installation of Interlocking Paving Stones – R5

E15.1.3 Referenced Standard Detail

(a) SD-240A – Interlocking Paving Stone Detail for Medians and Private Approaches

MATERIALS

E15.2 Interlocking Paving Stones

E15.2.1 Paving Stones shall be salvaged as part of the work.

CONSTRUCTION METHODS

E15.3 Paving stones shall be installed as detailed on the drawings and in accordance with CW 3330 – R5.

MEASUREMENT AND PAYMENT

- E15.4 Measurement will be in accordance with CW 3330 – R5 Installation of Interlocking Paving Stones. The work to salvage and sort through paving stones shall be incidental to the work, the contractor will be paid for the amount of paving stones installed.

E16. 150MM REINFORCED CONCRETE BUS STOP

DESCRIPTION

- E16.1 General
- E16.1.1 This specification covers the removal and reinstallation of a City of Winnipeg bus stop, including the shelter, bus stop flag, and associated furniture.
- E16.1.2 Referenced Standard Construction Specifications
- (a) CW 3310 – Portland Cement Concrete Pavement Works – R17
 - (b) CW 3235 – Renewal of Existing Miscellaneous Concrete Slabs – R9
 - (c) CW 3110 – Sub-Grade, Sub-Base and Base Course Construction – R19

MATERIALS

- E16.2 Concrete Materials
- E16.2.1 Supply concrete materials in accordance with Section 5 & 6 of CW 3310.
- E16.3 Reinforcing Steel
- E16.3.1 Supply reinforcing steel in accordance with Section 5.4.4 & 5.4.5 of CW 3310.

CONSTRUCTION METHODS

- E16.4 Existing Bus Stop Removal
- E16.4.1 Existing Bus Stop concrete slab will be removed in accordance with Section 3.1 of CW 3235.
- E16.5 150mm Reinforced Concrete Bus Stop
- E16.5.1 150mm Reinforced Concrete Bus Stop slab will be installed in accordance with Section 3.1 of CW 3235, and as shown on the Contract Drawings.
- E16.5.2 New 150mm Reinforced Concrete Bus Stop slab should have similar dimensions to the existing bus stop, such that the layout of the bus shelter and associated furniture will be identical, in relation to each other.
- E16.6 Remove Existing Concrete Base
- E16.6.1 Remove existing concrete base in accordance with CW 3110.

MEASUREMENT AND PAYMENT

- E16.7 150mm reinforced concrete bus stop installation will be measured on an area basis and paid for at the Contract Unit Price per square metre for “150mm Reinforced Concrete Bus Stop”. The area to be paid for shall be the total number of square metres of existing bus stop installed in accordance with this specification, accepted and measured by the Contract Administrator.

E17. INSULATION OF EXISTING WATER SERVICES

DESCRIPTION

- E17.1 General

- E17.1.1 This specification shall cover the supply and installation of rigid installation over watermains, feeder mains, water services and other water infrastructure

MATERIALS

- E17.2 Approved Products

- (a) High Strength Rigid insulation for installation below grade to be CAN/ULC S701, Type 4, Styrofoam HI 40 by Dow Chemical, Foamular 400 by Owens Corning, or approved equal.

CONSTRUCTION METHODS

- E17.3 Insulation shall be installed in accordance with CW2110, SD-018 and as directed by the Contract Administrator.

- E17.3.1 Rigid insulation shall be installed with the top of the insulation flush with the top of the subgrade.

- E17.3.2 Rigid insulation sheets shall be installed in a staggered pattern to maximise joint overlap.

MEASUREMENT AND PAYMENT

- E17.4 Insulation of existing water services, watermains, feeder mains and other water infrastructure will be measured on an area basis and paid for at the Contract Unit Price per square meter for "Watermain and Water Service Insulation". The area to be paid will be the total number of square meters of insulation installed in accordance with this specification, as measured and accepted by the contract administrator.

E18. CATCH BASIN WATERMAIN INSULATION

DESCRIPTION

- E18.1.1 This specification shall cover the supply and installation of rigid insulation within the excavation for catch basins adjacent to watermains, water services and other water infrastructure as indicated in the drawings.

MATERIALS

- E18.2 Approved Products

- (a) High Strength Rigid insulation for installation below grade to be CAN/ULC S701, Type 4, Styrofoam HI 40 by Dow Chemical, Foamular 400 by Owens Corning, or approved equal.

CONSTRUCTION METHODS

- E18.3 Insulation shall be installed in accordance with CW2110, SD-018 and as directed by the Contract Administrator.

- E18.3.1 Rigid insulation shall be installed against the walls and bottom of excavation for the catch basin facing the affected water infrastructure.

- E18.3.2 The walls of the excavation shall be kept square and plumb to allow for installation of square pieces of insulation.

- E18.3.3 Sand shall be used to level the bottom of excavations prior to installation of the rigid insulation

- E18.4 Bedding shall be in accordance with CW 2030 and 2130.

MEASUREMENT AND PAYMENT

- E18.5 Insulation of new catch basins adjacent to water infrastructure will be measured on an area basis and paid for at the Contract Unit Price each for "Watermain and Water Service Insulation". The area to be paid for will be the total number square meters of catch basin insulation supplied

and installed in accordance with this specification, as measured and accepted by the contract administrator.

E19. VIDEO INSPECTION OF SEWERS

DESCRIPTION

E19.1 This Specification amends CW 2130 and CW 2145. It covers the incidental video inspection of existing sewers following tying in new catch basin leads or the abandonment of existing catch basin leads

CONSTRUCTION METHODS

E19.2 Video inspection of existing sewers shall be done in accordance with CW 2130 and CW 2145.

MEASUREMENT AND PAYMENT

E19.3 Video inspection of existing sewers following tying in new catch basin leads or the abandonment of existing catch basin leads shall not be measured and shall be considered incidental to the Work.

E20. VALVE CLEANING

DESCRIPTION

E20.1 General

E20.1.1 This specification covers the cleaning of existing valves on site before the start of construction.

CONSTRUCTION METHODS

E20.2 Valve Cleaning

E20.2.1 Open valves to visually inspect the current condition.

E20.2.2 Use necessary equipment to clean dirt and debris from any valves that cannot be operated or where a valve box extension cannot be installed.

E20.2.3 Prepare a list of deficient items found and provide to the Contract Administrator.

MEASUREMENT AND PAYMENT

E20.3 Valve cleaning will be measured on a unit basis and paid for at the Contract Unit Price per item for "Valve Cleaning". The number to be paid for shall be the total number of valves cleaned in accordance with this Specification and accepted by the Contract Administrator

E21. PAVEMENT REPAIR FABRIC

DESCRIPTION

E21.1 General

E21.1.1 This specification covers the supply and installation of pavement repair fabric.

E21.1.2 Referenced Standard Construction

(a) CW 3130 – Supply and Installation of Geotextile Fabrics.

(b) CW 3135 – Supply and Installation of Geogrid

(c) CW 3410 – Asphaltic Concrete Pavement Works

MATERIALS

E21.2 Storage and Handling

E21.2.1 Store and handle material in accordance with Section 2 of CW 3130.

E21.3 Pavement Repair Fabric

E21.3.1 Pavement repair fabric will be Type A from the City of Winnipeg's Approved Products for Surface Works List.

CONSTRUCTION METHODS

E21.4 General

E21.4.1 Three (3) days prior to installation of Pavement Repair Fabric, the Contractor shall notify the Contract Administration of the selected product from the approved products list and shall furnish the Contract Administrator with the manufacturer's installation procedures.

E21.4.2 Install pavement repair fabric at locations as directed by the Contract Administrator.

E21.4.3 The extent of the placement limits and quantities required will be determined by the Contract Administrator and provided 48 hours prior to the placement of asphalt.

E21.4.4 Proceed with installation upon completion and acceptance of the asphalt levelling course.

E21.4.5 Install fabric in accordance with the manufacturer's specifications and recommendations.

E21.4.6 Only construction equipment required to place the final asphalt surface course will be allowed to travel on the exposed fabric.

E21.4.7 Replace damaged or improperly placed fabric.

E21.4.8 Ensure temperature of the asphalt material does not exceed the melting point of the fabric.

MEASUREMENT AND PAYMENT

E21.5 Pavement Repair Fabric

E21.5.1 The supply and installation of the pavement repair fabric will be measured on an area basis and paid for at the Contract Unit Price per square metre for "Pavement Repair Fabric". The area to be paid for will be the total number of square metres of pavement repair fabric supplied and installed in accordance with this specification, accepted and measured by the Contract Administrator.

E22. MOBILIZATION AND DEMOBILIZATION PAYMENT

DESCRIPTION

E22.1 This Specification shall cover all operations relating to the mobilization and demobilization of the Contractor to the project location(s).

E22.2 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.

E22.3 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

E22.4 Further to C12 of the General Conditions, where Mobilization and Demobilization is included as a bid item, it shall consist of the following, as applicable:

- (a) Mobilization shall include, but not be limited to:
 - (i) All activities and associated costs for transportation of the Contractor's personnel, equipment, and operating supplies to the site, and/or sites, and/or between sites;
 - (ii) Establishment of offices, buildings, other necessary general facilities and equipment parking/staging areas for the Contractor's operations at the site or sites;
 - (iii) Premiums paid for performance and payment bonds including coinsurance and reinsurance agreements as applicable;
 - (iv) General cleanup and housekeeping needed maintain a neat and orderly project site and/or sites;
 - (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.

E22.5 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

E22.6 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.

E22.6.1 Further to B9, B17, C12 and E22.6, 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.

E22.7 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.

E22.8 Payment for Demobilization:

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

E22.9 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.

APPENDIX 'A'

GEOTECHNICAL REPORT



wood.

Geotechnical Investigation

City of Winnipeg Street Investigation

Winnipeg, Manitoba

WX19092

17 June 2020



Environment & Infrastructure Solutions
 440 Dovercourt Drive, Winnipeg Manitoba, Canada R3Y 1N4
 Phone: (204) 488-2997
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**Geotechnical Investigation
 City of Winnipeg Street Investigation
 Wood Project Number - WX19092**

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Rev.	Date	Revision Notes	
0	17 June 2020	Issued Final to Client	
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Appendix A

Salter Street

Appendix B

Selkirk Avenue

Appendix C

William Avenue



1.0 Introduction

At the authorization of Mr. Mark Edgar, P. Eng., of Stantec, Wood Environment & Infrastructure Solutions, a division of Wood Canada Limited (Wood), completed a pavement coring and test hole drilling program related to the pavement evaluation and potential asphalt reconstruction and rehabilitation for thirty (30) locations in the City of Winnipeg, Manitoba. Locations and scope are itemized in Table 1-1. In summary, the Scope of Work included the coring of the pavement surface at a total of twenty street locations, with the advancement of test holes to a minimum depth of 2.5 m at fifteen of those locations. At the remaining five coring-only locations, a total of three cores were obtained, one from mid-slab, one from the transverse joint, and one from the longitudinal joint.

Table 1: Street Location and Investigation Scope

Street Name	Location	Number of Cores	Number of Test Holes	Test Hole Numbers
Salter Street	Slaw Rebchuk Bridge to Cathedral Avenue	18	3	TH20 - SS01 to TH20 - SS03 CH20 - SS04 to CH20 - SS08
Selkirk Avenue	McPhillips Street to Arlington Street	7	7	TH20 - SA01 to TH20 - SA07
William Avenue	McPhillips Street to Arlington Street	5	5	TH20 - WA01 to TH20 - WA05
	Total	30	15	

The geotechnical investigation was completed in accordance with the Scope of Work and Terms and Conditions outlined in Wood Proposal No. WPG2020.269, dated 6 May 2020.

2.0 Geotechnical Investigation

Prior to initiating drilling, Wood notified public utility providers (i.e. Manitoba Hydro, MTS, Shaw, etc.) of the intent to drill in order to clear public utilities, and where required, met with said representatives on-site.

Between 22 May and 3 June 2020, Wood supervised the drilling and coring a total of thirty core holes and fifteen test holes distributed between Salter Street, Selkirk Avenue and William Avenue as indicated in Table 1-1. The test hole locations are illustrated in Figures A1, B1 and C1. All locations were cored using a 150 mm diameter core barrel, while test hole drilling was conducted using a truck mounted Mobile B40LX or CME85 drill rig equipped with 125 mm solid stem augers, owned and operated by Maple Leaf Drilling of Springfield, Manitoba. Coring and test hole locations were initially selected by Stantec, however underground utilities required some adjustments to the original test hole locations. All final test hole locations were provided to Stantec prior to coring or drilling. At core-only locations (CH20-SS04 to CH20-SS08), a total of three cores were obtained, one at mid-slab (identified as core "A" at each location), one at the transverse joint (identified as core "B" at each location), and one at the longitudinal joint (identified as core "C" at each location).

During coring, Wood field personnel identified pavement types and thicknesses, as well as underlying granular structure, while during drilling, Wood field personnel visually classified the soil stratigraphy within the test holes in accordance with ASTM D3282 and ASTM D2487, as well as noted observed seepage and/or sloughing conditions. Soil sampling consisted of grab samples of the auger cuttings at all

test hole locations. All grab samples were retained in sealed plastic bags and shipped to Wood's Winnipeg laboratory for review and selected testing. All pavement core samples were shipped to Winnipeg laboratory to be photographed. The core photos and underlying pavement structure information are provided in Appendices A, B and C for Salter Street, Selkirk Avenue and William Avenue, respectively.

During drilling, Wood field personnel visually classified the soil stratigraphy within the test holes in accordance with ASTM D2487 – *Standard Practice for Classification of Soils for Engineering Purposes* and recorded observed seepage and/or sloughing conditions. Soil sampling consisted of grab samples of the auger cuttings at all test hole locations at depths of 0.6 m, 0.9 m, 1.2 m, 1.6 m, 2.0 m, and 2.5 m. Additionally, bulk samples were collected of the anticipated subgrade soils on which pavements would be constructed, beginning at a depth of about 0.9 m or deeper where soils expected to require excavation prior to pavement construction were observed at or below this depth. Test holes were advanced to a depth of about 2.6 m, except for TH20-SA05 and TH20-SA06, which were advanced to about 3.7 m as per request from Stantec. The in-situ relative consistency of cohesive soil (i.e. clay) was evaluated during drilling using a pocket penetrometer. All samples were retained in sealed plastic bags or within the Shelby Tubes and shipped to Wood's Winnipeg laboratory for review and selected testing.

Following completion of the field drilling program, a laboratory testing program was conducted on all soil samples obtained from the test holes. The laboratory testing program consisted of moisture content determinations on all samples, as well as Atterberg limits, particle size distributions (hydrometer method), Standard Proctor Testing in conjunction with California Bearing Ratio (CBR) evaluations on the anticipated subgrade soils. Results of the subgrade soil detailed testing are shown on the test hole logs at a nominal depth of 1.1 m, or deeper where soils expected to require excavation prior to construction were found. It should be noted that all the above testing has been completed with the exception of CBR testing. CBR results will be provided upon their completion. Laboratory testing results and detailed test hole logs summarizing the sampling, field testing, laboratory test results, and subsurface conditions encountered at the test hole locations are presented in Appendices A, B and C for Salter Street, Selkirk Avenue and William Avenue, respectively. Actual depths noted on the test hole logs may vary by ± 0.3 m from those recorded due to the method by which the soil cuttings are returned to the surface. Summaries of the terms and symbols used on the test hole logs and of the Modified Unified Soil Classification System are also presented in Appendix A.

3.0 Pavement Summary

The following sections provide summaries of the pavement structure encountered at each test hole and core hole location. Details of the soil structure underlying the pavements observed either at the bottom of each core hole or within the test holes can be found on the test hole logs or core photos found in Appendices A, B and C.

3.1 Salter Street

Table 2 provides a summary of the pavement type and thickness encountered at each of the test locations on Salter Street.

Table 2: Salter Street Pavement Summary

Test Hole / Core Hole Number	Street Location	Slab Location	Concrete Thickness (mm)
TH20-SS01	160 Salter Street, NB Curb Lane	Mid-Panel	225
TH20-SS02	20m South of Magnus Avenue, NB Center Lane	Mid-Panel	225
TH20-SS03	200 Salter Street, SB Centre Lane	Mid-Panel	210
CH20-SS04A	25m South of Machray Avenue, SB Center Lane	Mid-Panel	200
CH20-SS04B		South Joint	200
CH20-SS04C		West Joint	250
CH20-SS05A	50m North of St. John's Avenue, SB Center Lane	Mid-Panel	225
CH20-SS05B		North Joint	225
CH20-SS05C		West Joint	225
CH20-SS06A	5m South of Alfred Avenue, NB Curb Lane	Mid-Panel	200
CH20-SS06B		North Joint	225
CH20-SS06C		West Joint	225
CH20-SS07A	25m North of Selkirk Avenue, NB Curb Lane	Mid-Panel	250
CH20-SS07B		North Joint	225
CH20-SS07C		East Joint	225
CH20-SS08A	25m North of Stella Avenue, SB Curb Lane	Mid-Panel	250
CH20-SS08B		North Joint	250
CH20-SS08C		West Joint	230

3.2 Selkirk Avenue

Table 3 provides a summary of the pavement type and thickness encountered at each of the test hole locations on Selkirk Avenue.

Table 3: Selkirk Avenue Pavement Summary

Test Hole Number	Street Location	Slab Location	Asphalt Thickness (mm)
TH20-SA01	856 Selkirk Avenue, WB Center Lane	Mid-Panel	75
TH20-SA02	887 Selkirk Avenue, WB Center Lane	Mid-Panel	125
TH20-SA03	929 Selkirk Avenue, WB Curb Lane	Mid-Panel	100
TH20-SA04	979 Selkirk Avenue, WB Curb Lane	Mid-Panel	175
TH20-SA05	15m East of Rail Centerline, WB Center Lane	Mid-Panel	200

Test Hole Number	Street Location	Slab Location	Aphalt Thickness (mm)
TH20-SA06	15m West of Rail Centerline, WB Center Lane	Mid-Panel	250
TH20-SA07	1085 Selkirk Avenue, WB Center Lane	Mid-Panel	175

Note to Table: A layer of concrete was present at test holes TH20-SA01, TH20-SA02, TH20-SA06 and TH20-SA07, below a layer of granular fill directly below the asphalt layer. The concrete layer could not be penetrated at test holes TH20-SA01 and TH20-SA02, however was found to be 150 mm and 300 mm thick at test holes TH20-SA06 and TH20-SA07, respectively.

3.3 William Avenue

Table 4 provides a summary of the pavement type and thickness encountered at each of the test locations on William Avenue.

Table 4: William Avenue Pavement Summary

Test Hole Number	Street Location	Slab Location	Aphalt Thickness (mm)	Concrete Thickness (mm)
TH20-WA01	899 William Avenue, WB Center Lane	Mid-Panel	200	--
TH20-WA02	999 William Avenue, WB Center Lane	Mid-Panel	200	200
TH20-WA03	970 William Avenue, EB Curb Lane	Mid-Panel	150	--
TH20-WA04	931 William Avenue, EB Center Lane	Mid-Panel	175	150
TH20-WA05	976 William Avenue, EB Curb Lane	Mid-Panel	100	200

"--" indicates none found

4.0 Closure

The findings of this report were based on the results of field and laboratory investigations at test hole locations determined based on the requirements provided by Stantec.

The site investigation was conducted for the sole purpose of profiling the pavement and subsurface conditions. Although no environmental issues were identified during the fieldwork, this does not indicate that no such issues exist. If the owner or other parties have any concern regarding the presence of environmental issues, then an appropriate level environmental assessment should be conducted.

Soil conditions, by their nature, can be highly variable across a site. The placement of fill and prior construction activities on a site can contribute to the variability especially near surface soil conditions. A contingency should always be included in any construction budget to allow for the possibility of variation in soil conditions, which may result in modification of any potential design and construction procedures which may arise from this factual investigative report.

This report has been prepared for the exclusive use of Stantec, and their agents, for specific application to the project described in this report. The data provided herein should not be used for any other purpose,

or by any other parties, without review and written advice from Wood. Any use that a third party makes of this report, or any reliance or decisions made based on this report, are the responsibility of those parties. Wood accepts no responsibility for damages suffered by a third party as a result of decisions made or actions based on this report.

This report has been prepared in accordance with generally accepted geotechnical engineering practices. No other warranty, either expressed or implied, is made.

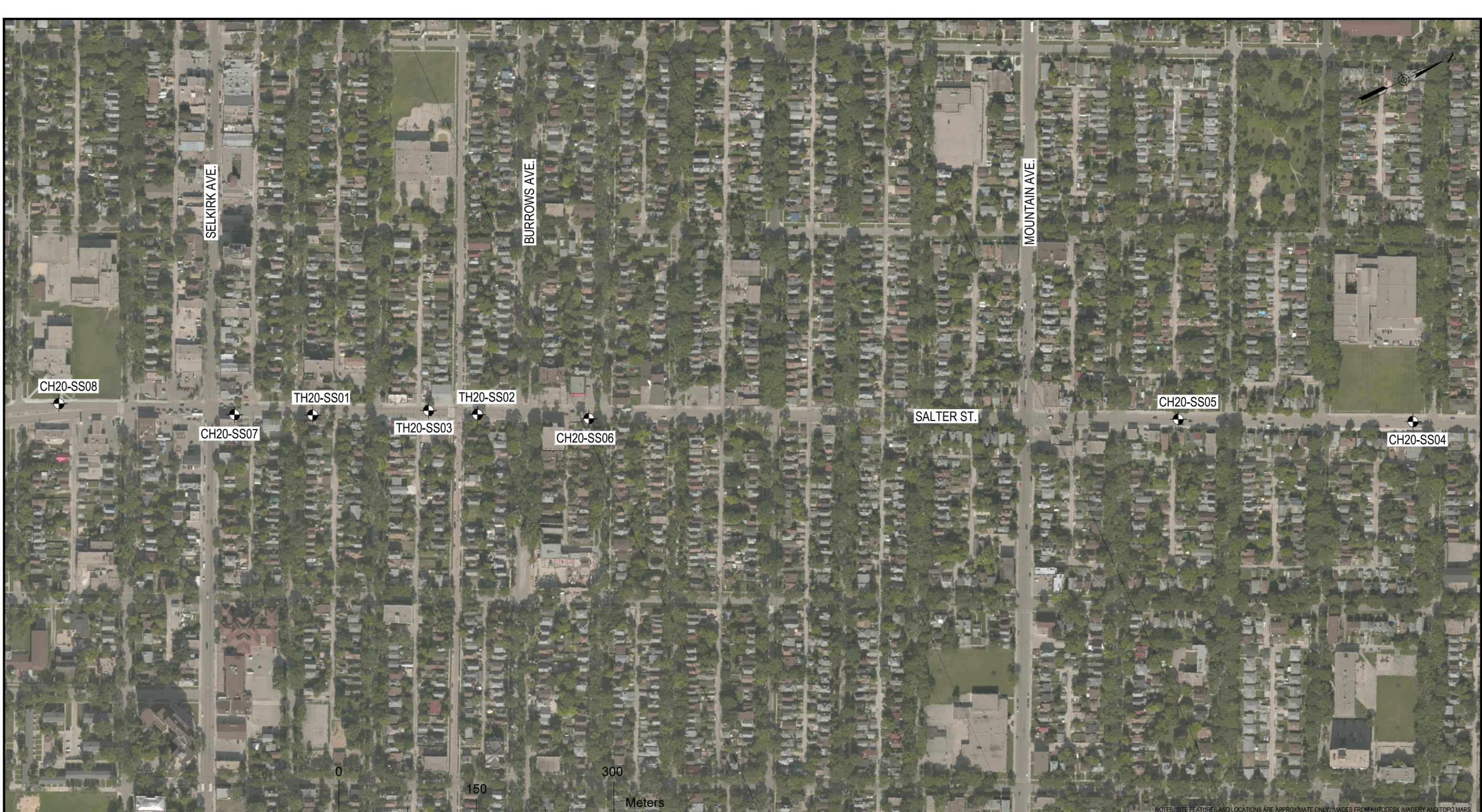
Respectfully submitted,

**Wood Environment & Infrastructure Solutions,
a Division of Wood Canada Limited**

Appendix A

Salter Street

- Test and Core Hole Location Plan
- Core Photos
- Test Hole Logs
- Laboratory Testing Results



NOTES: SITE FEATURES AND LOCATIONS ARE APPROXIMATE ONLY; IMAGES FROM AUTODESK IMAGERY AND TOPO MAPS.

LEGEND: TEST HOLE 	REVISION	BY	DATE	CLIENT: 	wood. 440 DOVERCOURT DRIVE WINNIPEG, MANITOBA R3Y 1N4 PHONE: 204.488.2997 FAX:204.489.8261	DWN BY:	MD	GEOTECHNICAL INVESTIGATION SALTER STREET WINNIPEG, MANITOBA	DATE:	JUNE 2020
	----	----	----			CHK'D BY:	JW		PROJECT NO.:	WX19092
						DATUM:	NAD83		REV. NO.:	A
						PROJECTION:	UTM Zone 14 U		FIGURE NO.:	FIGURE A1
						SCALE:	AS SHOWN			
TEST HOLE LOCATION PLAN										









Granular Structure Below Pavement: Gravel fill – poorly graded, medium grained, damp to moist, compact (inferred), light brown

	<p>CORE PHOTOGRAPHS PAVEMENT CORE SAMPLE CH20-SS04A SOUTHBOUND CENTER LANE, 25M SOUTH OF MACHRAY AVENUE WINNIPEG, MANITOBA</p>		
<p>Wood Environment and Infrastructure Solutions</p>	<p>MID-PANEL</p>		
<p>Drawn: JW</p>	<p>Scale: N/A</p>	<p>Date: 5 June 2020</p>	<p>Project No.: WX19092</p>



Granular Structure Below Pavement: Gravel fill – poorly graded, medium grained, damp to moist, compact (inferred), light brown

	<p>CORE PHOTOGRAPHS PAVEMENT CORE SAMPLE CH20-SS04B SOUTHBOUND CENTER LANE, 25M SOUTH OF MACRAY AVENUE WINNIPEG, MANITOBA</p>		
<p>Wood Environment and Infrastructure Solutions</p>	<p>SOUTH JOINT</p>		
<p>Drawn: JW</p>	<p>Scale: N/A</p>	<p>Date: 5 June 2020</p>	<p>Project No.: WX19092</p>



Granular Structure Below Pavement: Gravel fill – poorly graded, medium grained, damp to moist, compact (inferred), light brown

	<p>CORE PHOTOGRAPHS PAVEMENT CORE SAMPLE CH20-SS04C SOUTHBOUND CENTER LANE, 25M SOUTH OF MACRAY AVENUE WINNIPEG, MANITOBA</p>		
<p>Wood Environment and Infrastructure Solutions</p>	<p>WEST JOINT</p>		
<p>Drawn: JW</p>	<p>Scale: N/A</p>	<p>Date: 5 June 2020</p>	<p>Project No.: WX19092</p>



Granular Structure Below Pavement: Gravel fill – sandy, poorly graded, fine grained, damp to moist, compact (inferred), light brown

	<p>CORE PHOTOGRAPHS PAVEMENT CORE SAMPLE CH20-SS05A SOUTHBOUND CENTER LANE, 50M NORTH OF ST. JOHNS AVENUE WINNIPEG, MANITOBA</p>			
<p>Wood Environment and Infrastructure Solutions</p>	<p>MID-PANEL</p>			
<p>Drawn: JW</p>	<p>Scale: N/A</p>	<p>Date: 5 June 2020</p>	<p>Project No.: WX19092</p>	



Granular Structure Below Pavement: Gravel fill – sandy, poorly graded, fine grained, damp to moist, compact (inferred), light brown



Granular Structure Below Pavement: Gravel fill – sandy, poorly graded, fine grained, damp to moist, compact (inferred), light brown



Granular Structure Below Pavement: Gravel fill – sandy, poorly graded, fine grained, damp to moist, compact (inferred), light brown

	<p>CORE PHOTOGRAPHS PAVEMENT CORE SAMPLE CH20-SS06A NORTHBOUND CURB LANE, 5M SOUTH OF ALFRED AVENUE WINNIPEG, MANITOBA</p>			
<p>Wood Environment and Infrastructure Solutions</p>	<p>MID-PANEL</p>			
<p>Drawn: JW</p>	<p>Scale: N/A</p>	<p>Date: 5 June 2020</p>	<p>Project No.: WX19092</p>	



Granular Structure Below Pavement: Gravel fill – sandy, poorly graded, fine grained, damp to moist, compact (inferred), light brown



Granular Structure Below Pavement: Gravel fill – sandy, poorly graded, fine grained, damp to moist, compact (inferred), light brown



Granular Structure Below Pavement: Gravel fill – sandy, poorly graded, fine grained, damp to moist, compact (inferred), light brown



Granular Structure Below Pavement: Gravel fill – sandy, poorly graded, fine grained, damp to moist, compact (inferred), light brown



Granular Structure Below Pavement: Gravel fill – sandy, poorly graded, fine grained, damp to moist, compact (inferred), light brown



Granular Structure Below Pavement: Gravel fill – sandy, poorly graded, fine grained, damp to moist, compact (inferred), light brown



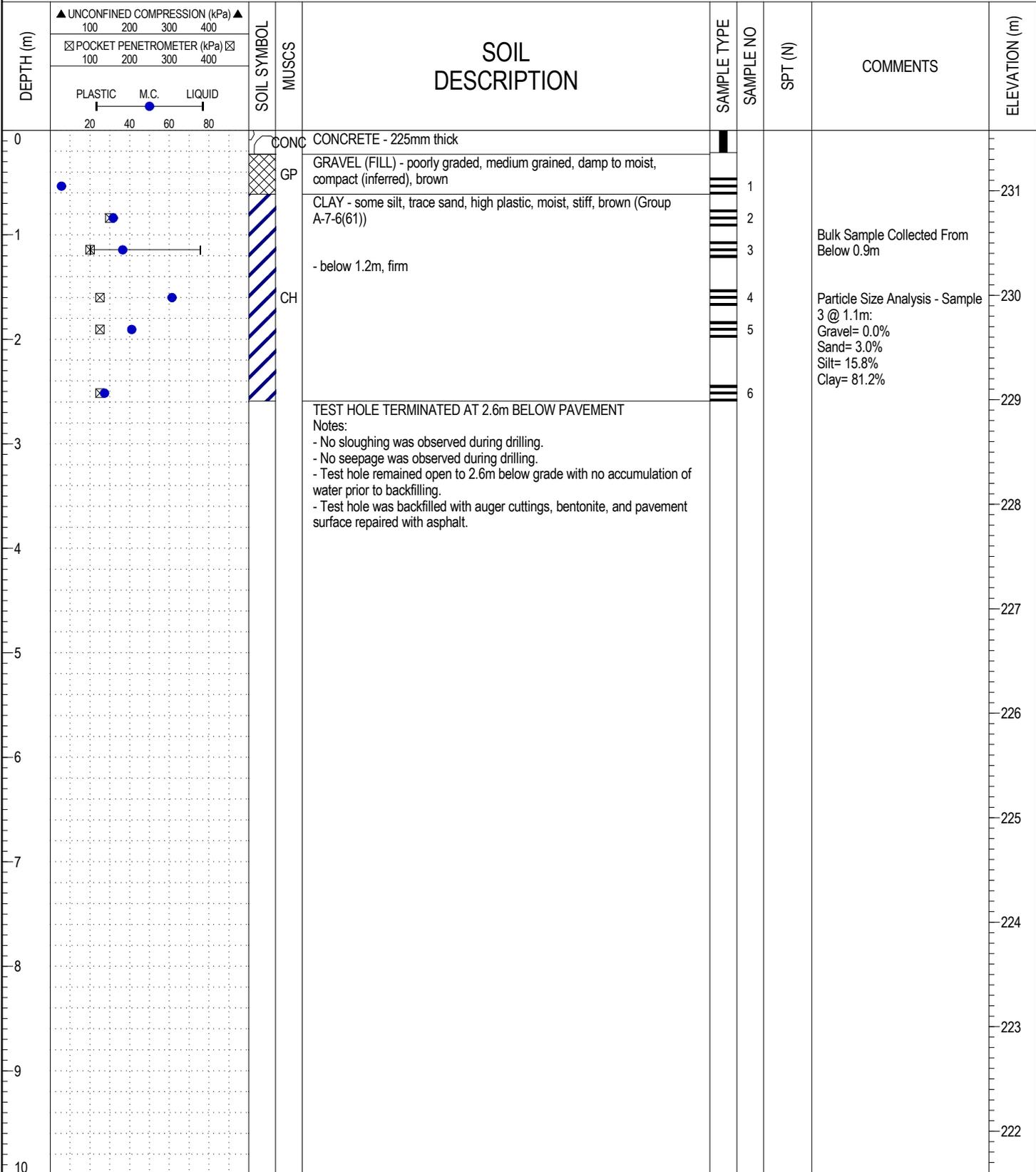
Granular Structure Below Pavement: Gravel fill – sandy, poorly graded, fine grained, damp to moist, compact (inferred), light brown



Granular Structure Below Pavement: Gravel fill – sandy, poorly graded, fine grained, damp to moist, compact (inferred), light brown

PROJECT: City of Winnipeg Street Investigation	DRILLER: Maple Leaf Drilling Ltd.	TEST HOLE ID: TH20-SS01
CLIENT: Stantec	DRILL RIG: Truck Mounted B40	PROJECT No: WX19092
LOCATION: 160 Salter Street, NB Curb Lane	DRILL METHOD: 125mm SSA	ELEVATION: 231.58 m

SAMPLE TYPE	<input checked="" type="checkbox"/> Shelby Tube	<input type="checkbox"/> No Recovery	<input checked="" type="checkbox"/> SPT (N)	<input checked="" type="checkbox"/> Grab Sample	<input type="checkbox"/> Split-Pen	<input type="checkbox"/> Core
BACKFILL TYPE	<input checked="" type="checkbox"/> Bentonite	<input type="checkbox"/> Pea Gravel	<input checked="" type="checkbox"/> Drill Cuttings	<input type="checkbox"/> Grout	<input type="checkbox"/> Slough	<input type="checkbox"/> Sand



WX19092 - STANTEC - CITY OF WINNIPEG STREET INVESTIGATION.GPJ 20/06/17 09:30 PM (WPG - GEOTECH LOG 1)

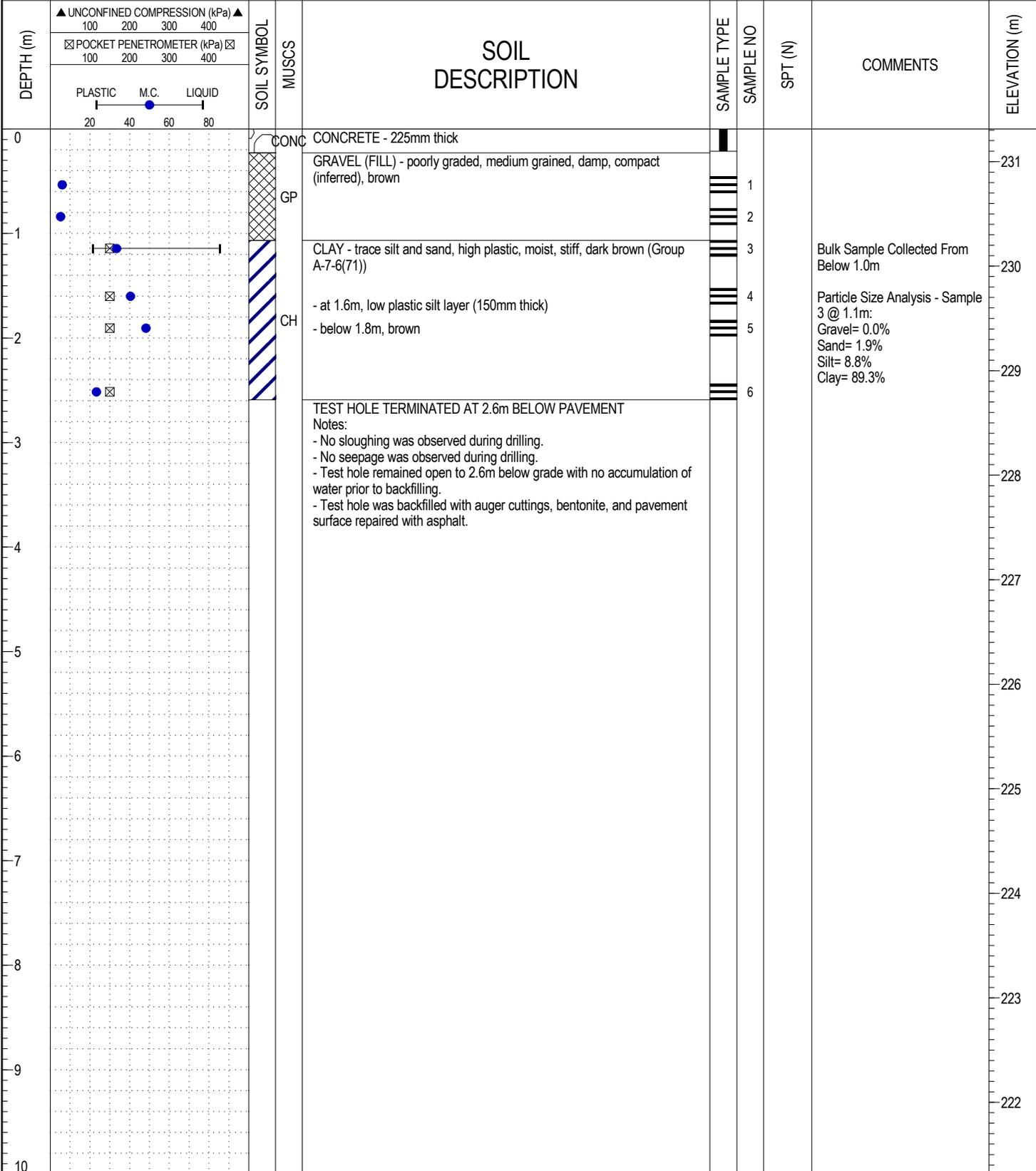


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LOGGED BY: JW	COMPLETION DEPTH: 2.6 m
REVIEWED BY: TG	COMPLETION DATE: June 1, 2020
Figure No. A1	Sheet 1 of 1

PROJECT: City of Winnipeg Street Investigation	DRILLER: Maple Leaf Drilling Ltd.	TEST HOLE ID: TH20-SS02
CLIENT: Stantec	DRILL RIG: Truck Mounted B40	PROJECT No: WX19092
LOCATION: Salter, 20m S. of Magnus, NB Center Lane	DRILL METHOD: 125mm SSA	ELEVATION: 231.31 m

SAMPLE TYPE	<input checked="" type="checkbox"/> Shelby Tube	<input type="checkbox"/> No Recovery	<input checked="" type="checkbox"/> SPT (N)	<input checked="" type="checkbox"/> Grab Sample	<input type="checkbox"/> Split-Pen	<input type="checkbox"/> Core
BACKFILL TYPE	<input checked="" type="checkbox"/> Bentonite	<input type="checkbox"/> Pea Gravel	<input checked="" type="checkbox"/> Drill Cuttings	<input type="checkbox"/> Grout	<input type="checkbox"/> Slough	<input type="checkbox"/> Sand



WX19092 - STANTEC - CITY OF WINNIPEG STREET INVESTIGATION.GPJ, 20/06/17 09:30 PM (WPG - GEOTECH LOG 1)

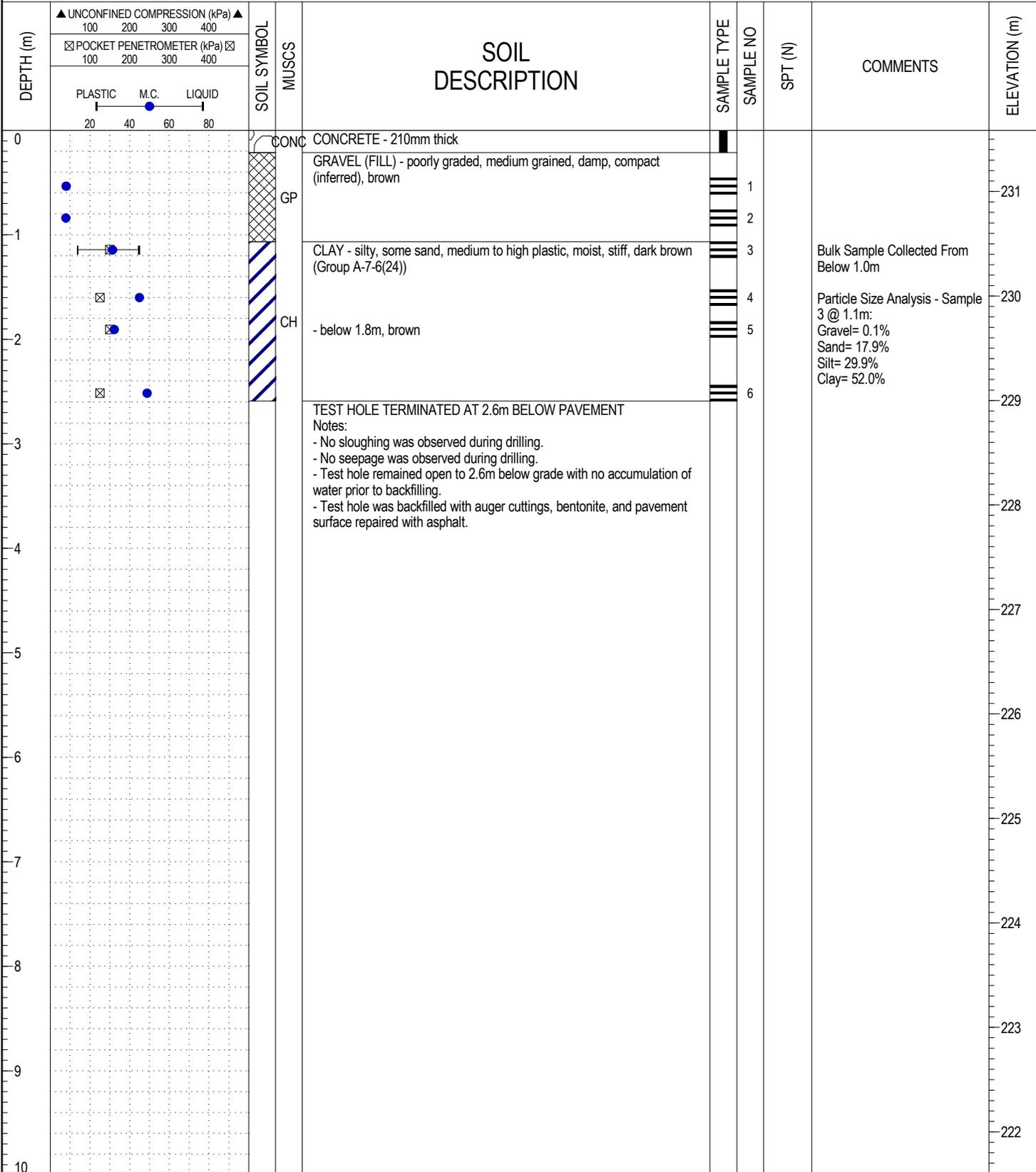


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a division of Wood Canada Limited

LOGGED BY: JW	COMPLETION DEPTH: 2.6 m
REVIEWED BY: TG	COMPLETION DATE: June 1, 2020
Figure No. A2	Sheet 1 of 1

PROJECT: City of Winnipeg Street Investigation	DRILLER: Maple Leaf Drilling Ltd.	TEST HOLE ID: TH20-SS03
CLIENT: Stantec	DRILL RIG: Truck Mounted B40	PROJECT No: WX19092
LOCATION: 200 Salter Street, SB Center Lane	DRILL METHOD: 125mm SSA	ELEVATION: 231.59 m

SAMPLE TYPE	<input checked="" type="checkbox"/> Shelby Tube	<input type="checkbox"/> No Recovery	<input checked="" type="checkbox"/> SPT (N)	<input checked="" type="checkbox"/> Grab Sample	<input type="checkbox"/> Split-Pen	<input type="checkbox"/> Core
BACKFILL TYPE	<input checked="" type="checkbox"/> Bentonite	<input type="checkbox"/> Pea Gravel	<input checked="" type="checkbox"/> Drill Cuttings	<input type="checkbox"/> Grout	<input type="checkbox"/> Slough	<input type="checkbox"/> Sand



WX19092 - STANTEC - CITY OF WINNIPEG STREET INVESTIGATION.GPJ 20/06/17 09:30 PM (WPG - GEOTECH LOG 1)



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LOGGED BY: JW	COMPLETION DEPTH: 2.6 m
REVIEWED BY: TG	COMPLETION DATE: June 1, 2020
Figure No. A3	Sheet 1 of 1

PARTICLE SIZE ANALYSIS



Report Date: 17 June 2020

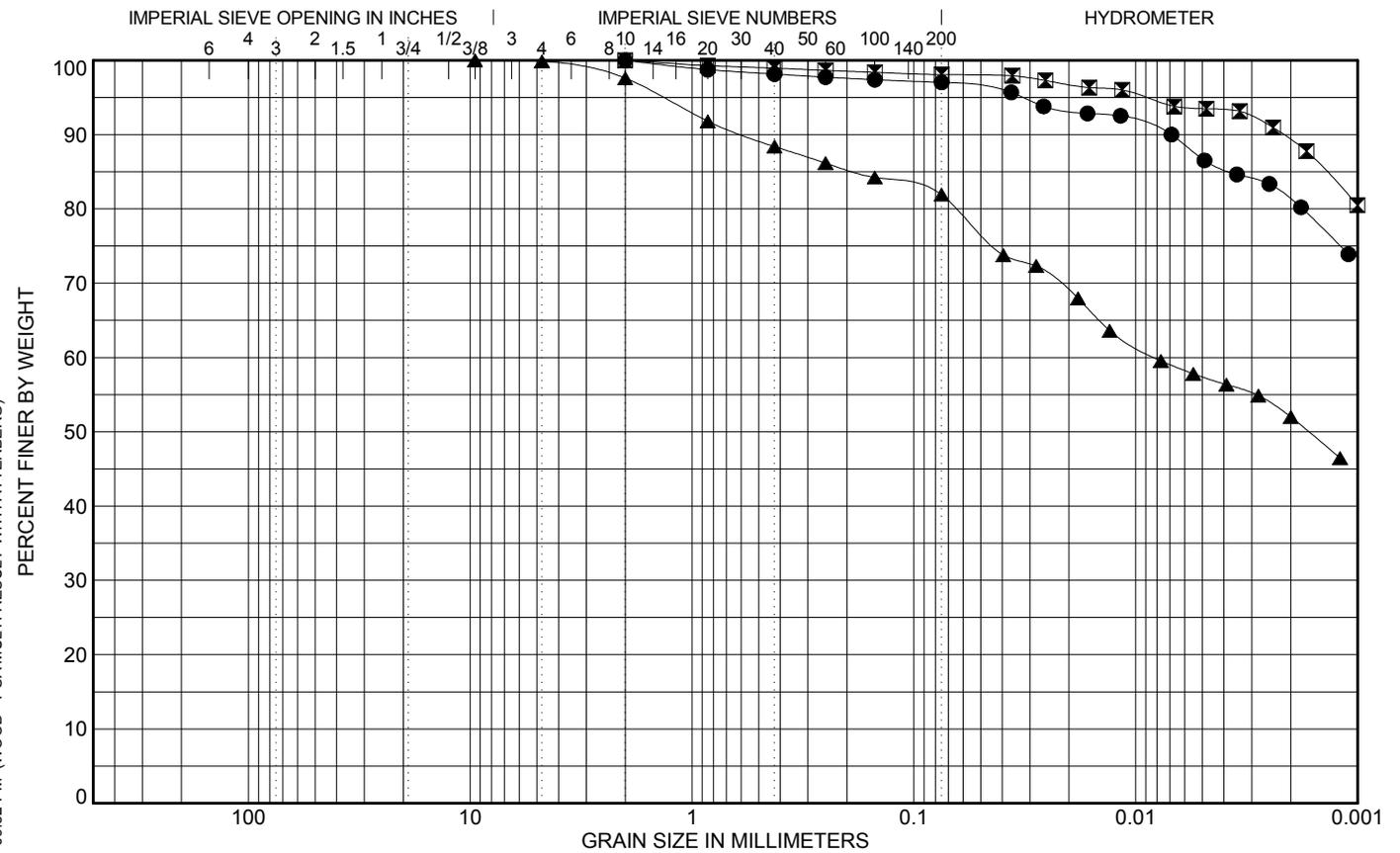
Client

Name: Stantec
Address: 500-311 Portage Avenue, WPG, MB
Attention: Mark Edgar
PO Number:

Project

Name: City of Winnipeg Street Investigation
Address: Salter St, William Ave, and Selkirk Ave, WPG, MB
Project No.: WX19092
Manager: JW

Gradation Specification:



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Sample ID	mUSCS	MC	D100	D60	D30	D10	LL	PL	% Gravel	% Sand	% Fines
● TH20-SS01, 1.1 m	CI	36.5	2				76	20	0	3	16 (Silt) : 81 (Clay)
☒ TH20-SS02, 1.1 m	CI	33.4	2				85	21	0	2	9 (Silt) : 89 (Clay)
▲ TH20-SS03, 1.1 m	CI	31.4	9.5	0			45	14	0	18	30 (Silt) : 52 (Clay)

Reporting of these results constitutes a testing service only. Engineering interpretation or evaluation of the test results is provided only on written request.
 Wood Environment & Infrastructure Solutions - 440 Dovercourt Drive - Winnipeg, MB - R3Y 1N4

WX19092 - STANTEC - CITY OF WINNIPEG STREET INVESTIGATION.GPJ 2006/17 09:32 PM (WOOD - PSA MULTI RESULT WITH ATTERBERG)

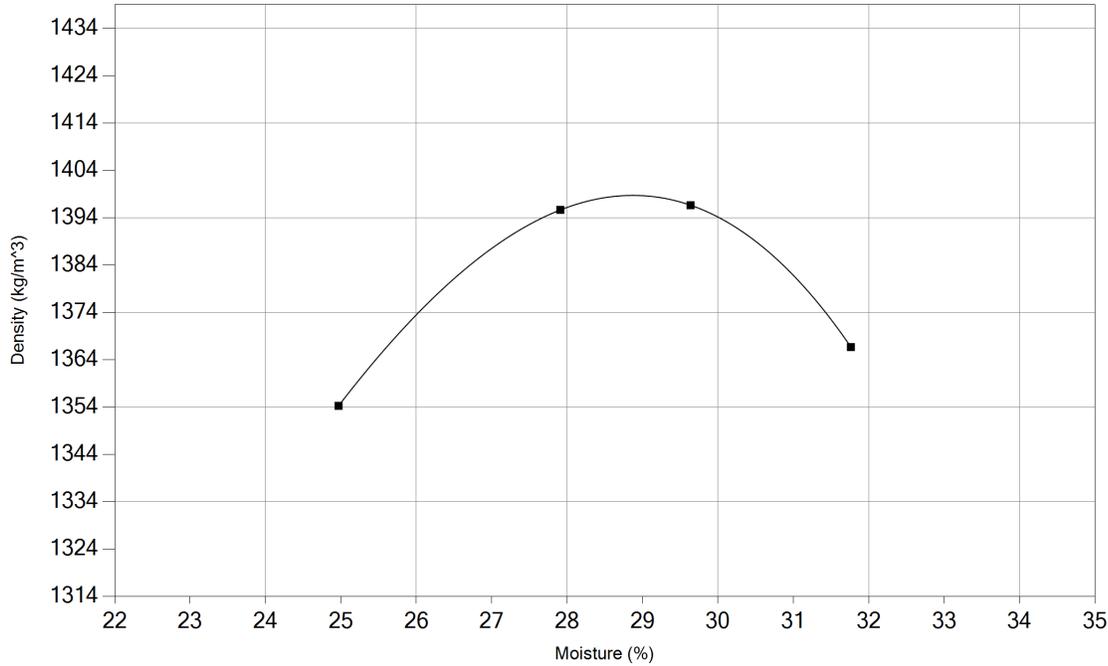
Moisture / Density Relationship



Report Date: June 05, 2020

Client
Name: Stantec
Address: 311 Portage Ave, Suite 500 Winnipeg, Mantioba
Attention: Scott Suderman
PO Number:
Sample Date: 6/1/2020 by Jorden Wiwcharyk
Source: TH20-SS01 Bulk Sample

Project
Name: (WX19092) City of Winnipeg Street Investigation
Address: Winnipeg, Manitoba
Phase: N/A **Task:** N/A
Manager: Jorden Wiwcharyk
Lab/Ref. #: WX19092-SS01
Description: Clay



Moisture Density Relationship: (ASTM D698-12) Method: A

Preparation Method: Dry **Rammer Type:** Mechanical

Maximum Density (kg/m³): 1399

Optimum Moisture (%): 28.9

Received Moisture Content (%):

Remarks:

Distribution: Jorden Wiwcharyk

Reviewed By: Randell Johnson

Reporting of these results constitutes a testing service only. Engineering interpretation or evaluation of the test results is provided only on written request.

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CCIL Certified Aggregate Type C & Type D

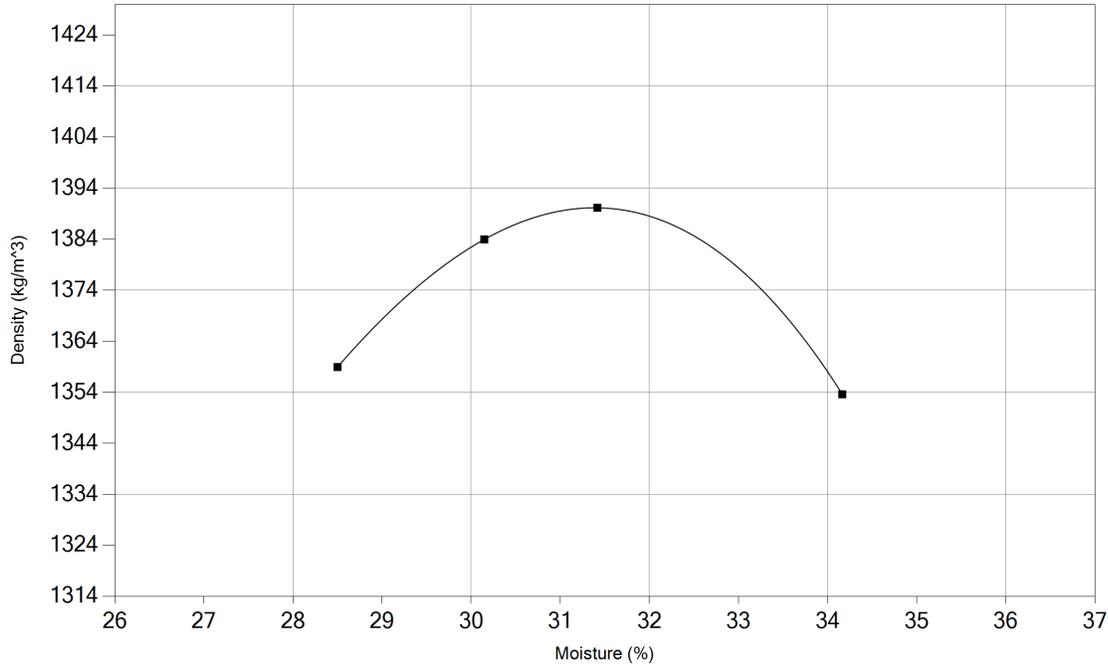
Moisture / Density Relationship



Report Date: June 05, 2020

Client
Name: Stantec
Address: 311 Portage Ave, Suite 500 Winnipeg, Manitoba
Attention: Scott Suderman
PO Number:
Sample Date: 6/1/2020 by Jorden Wiwcharyk
Source: TH20-SS02 Bulk Sample

Project
Name: (WX19092) City of Winnipeg Street Investigation
Address: Winnipeg, Manitoba
Phase: N/A **Task:** N/A
Manager: Jorden Wiwcharyk
Lab/Ref. #: WX19092-SS02
Description: Clay



Moisture Density Relationship: (ASTM D698-12) Method: A

Preparation Method: Dry **Rammer Type:** Mechanical

Maximum Density (kg/m³): 1390

Optimum Moisture (%): 31.4

Remarks:

Distribution: Jorden Wiwcharyk

Reviewed By: Randell Johnson

Reporting of these results constitutes a testing service only. Engineering interpretation or evaluation of the test results is provided only on written request.

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CCIL Certified Aggregate Type C & Type D

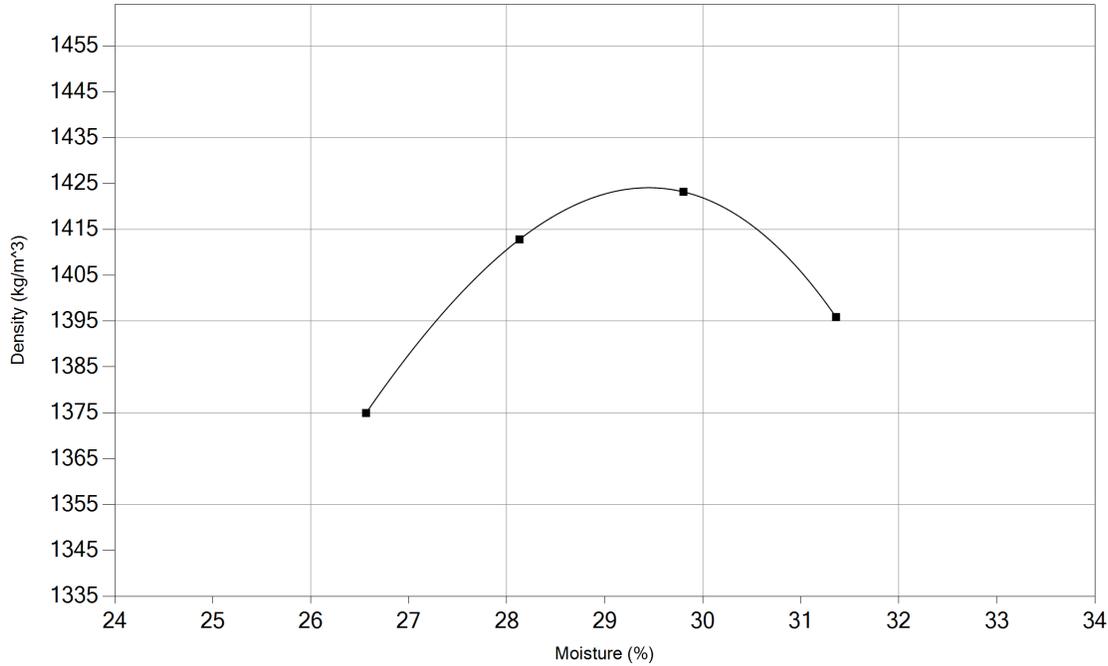
Moisture / Density Relationship



Report Date: June 05, 2020

Client
Name: Stantec
Address: 311 Portage Ave, Suite 500 Winnipeg, Manitoba
Attention: Scott Suderman
PO Number:
Sample Date: 6/1/2020 by Jorden Wiwcharyk
Source: TH20-SS03 Bulk Sample

Project
Name: (WX19092) City of Winnipeg Street Investigation
Address: Winnipeg, Manitoba
Phase: N/A **Task:** N/A
Manager: Jorden Wiwcharyk
Lab/Ref. #: WX19092-SS03
Description: Clay



Moisture Density Relationship: (ASTM D698-12) Method: A

Preparation Method: Dry **Rammer Type:** Mechanical

Maximum Density (kg/m³): 1424

Optimum Moisture (%): 29.4

Remarks:

Distribution: Jorden Wiwcharyk

Reviewed By: Randell Johnson

Reporting of these results constitutes a testing service only. Engineering interpretation or evaluation of the test results is provided only on written request.

Wood Environment & Infrastructure Solutions - 440 Dovercourt Drive - Winnipeg, MB - R3Y 1N4



CCIL Certified Aggregate Type C & Type D

California Bearing Ratio

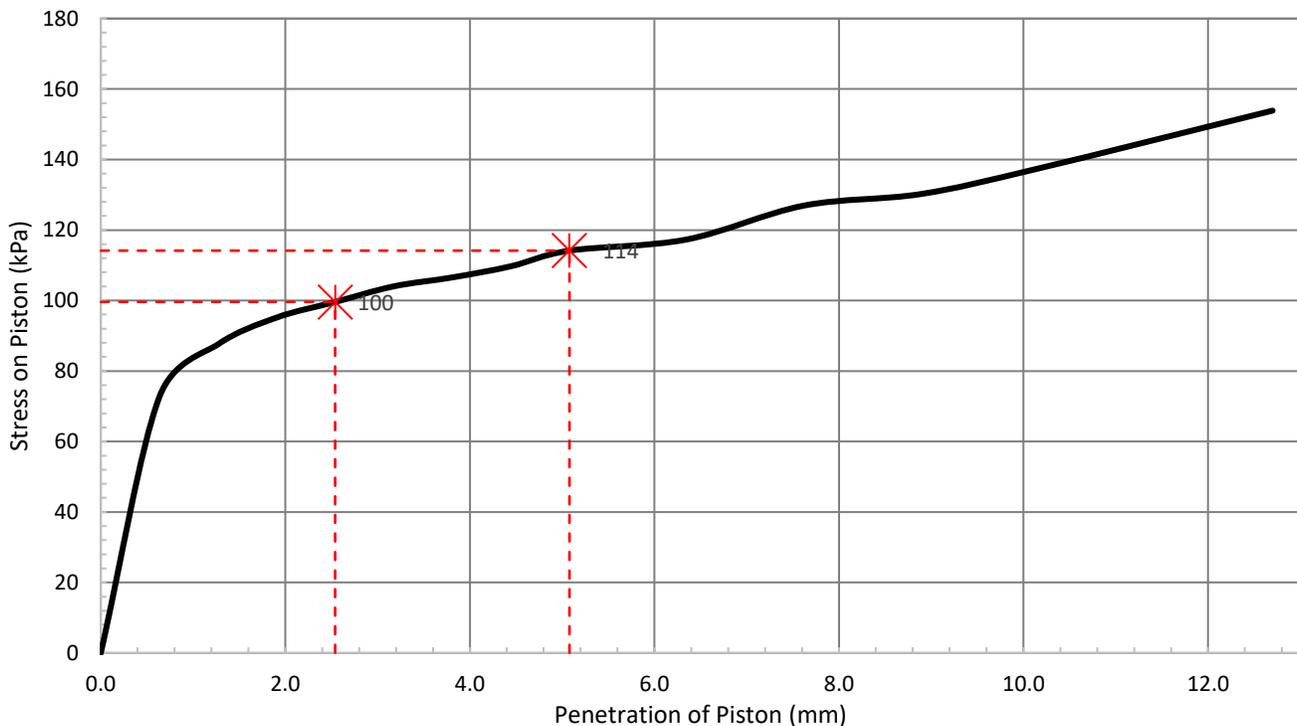
ASTM D1883-16, Soaking Method



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Type of Preparation	Standard ASTM D698	Sample Preparation	Soaked
Maximum Dry Density	1399 kg/m ³	Soaking time	96 hrs
Optimum Moisture Content	28.9 %	Top 1 Inch Soaked Moisture	41.1 %
Compacted Dry Density	1426 kg/m ³	Bottom 1 Inch Soaked Moisture	31.3 %
Compacted Moisture Content	27.9 %	Average Soaked Moisture	35.0 %
Percent Compaction	102% %	Mass of Surcharge	4.54 kg

Corrected Penetration (mm)	Standard Load of Crushed Stone (kPa)	Corrected Load (kPa)	CBR (%)
2.540	6900	100	1.4
5.080	10300	114	1.1



Client: Stantec
 Project No: WX19092
 Date: June 17, 2020
 Technologist: Mdnazri Mohidin

Project: City of Winnipeg Street Investigation
 Site Location: SS01
 Request No: N/A
 Reviewed By: Caolan McEvoy

Soil Description: Clay

Liquid Limit 76 Plastic Limit 20 Plasticity Index 56 Swell 0.54%

Reporting of these test results constitutes a testing service only. Engineering interpretation or evaluation of the test results will be provided only upon written request. If you are not the Intended recipient please notify us by telephone as soon as possible and either return the message by post or destroy it. If you are not the intended recipient, any use by you of its contents is prohibited.

California Bearing Ratio

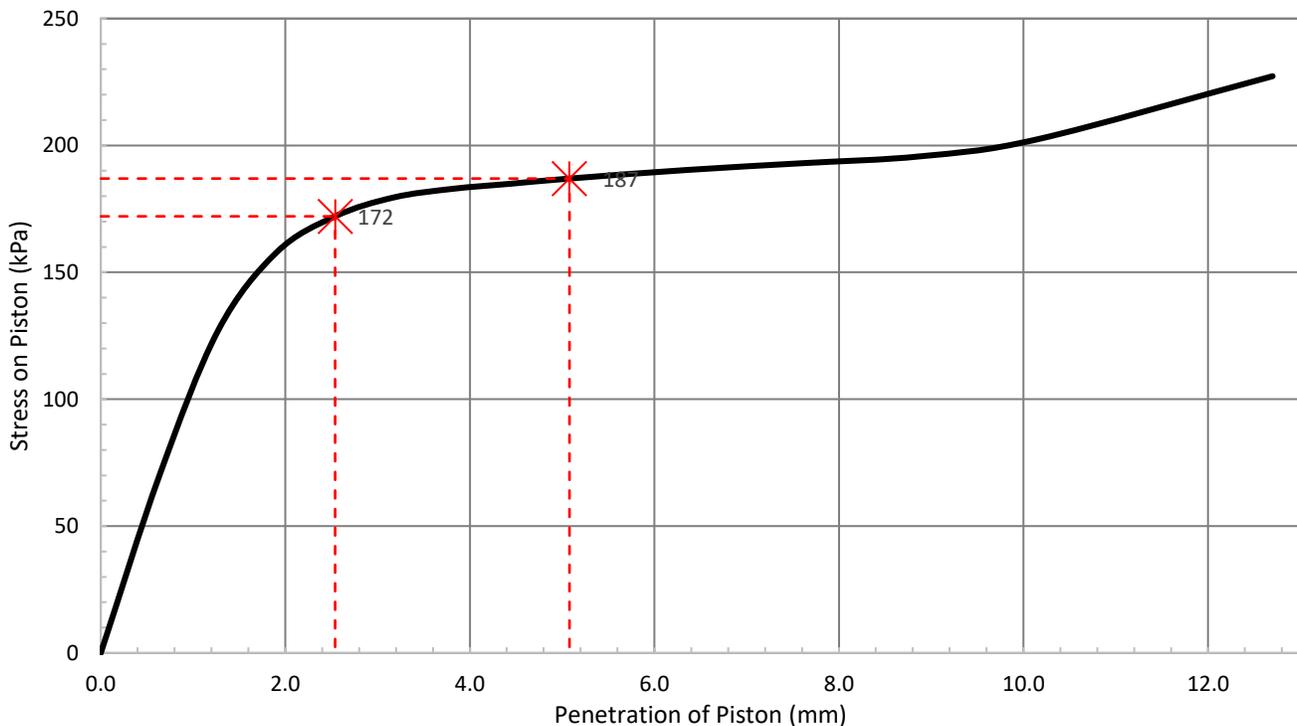
ASTM D1883-16, Soaking Method



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Type of Preparation	Standard ASTM D698	Sample Preparation	Soaked
Maximum Dry Density	1390 kg/m ³	Soaking time	96 hrs
Optimum Moisture Content	31.4 %	Top 1 Inch Soaked Moisture	35.7 %
Compacted Dry Density	1422 kg/m ³	Bottom 1 Inch Soaked Moisture	34.6 %
Compacted Moisture Content	31.5 %	Average Soaked Moisture	35.3 %
Percent Compaction	102% %	Mass of Surcharge	4.54 kg

Corrected Penetration (mm)	Standard Load of Crushed Stone (kPa)	Corrected Load (kPa)	CBR (%)
2.540	6900	172	2.5
5.080	10300	187	1.8



Client: Stantec
 Project No: WX19092
 Date: June 17, 2020
 Technologist: Mdnazri Mohidin

Project: C.O.W. Street Investigation
 Site Location: TH20-SS02 Bulk Sample
 Request No: N/A
 Reviewed By: Caolan McEvoy

Soil Description: Clay

Liquid Limit 85 Plastic Limit 21 Plasticity Index 64 Swell 0.69%

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California Bearing Ratio

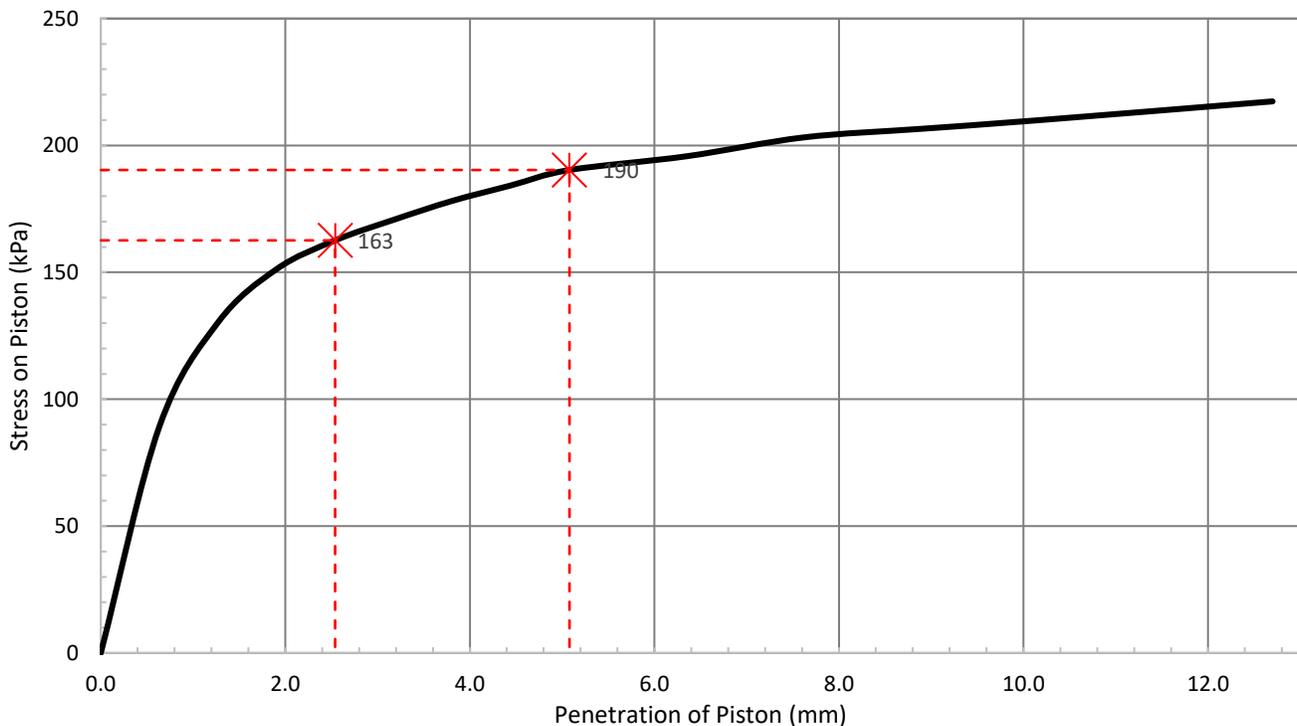
ASTM D1883-16, Soaking Method



Wood Environment & Infrastructure Solutions
a Division of Wood Canada Limited

Type of Preparation	Standard ASTM D698	Sample Preparation	Soaked
Maximum Dry Density	1424 kg/m ³	Soaking time	96 hrs
Optimum Moisture Content	29.4 %	Top 1 Inch Soaked Moisture	41.0 %
Compacted Dry Density	1425 kg/m ³	Bottom 1 Inch Soaked Moisture	32.9 %
Compacted Moisture Content	30.4 %	Average Soaked Moisture	35.5 %
Percent Compaction	100% %	Mass of Surcharge	4.54 kg

Corrected Penetration (mm)	Standard Load of Crushed Stone (kPa)	Corrected Load (kPa)	CBR (%)
2.540	6900	163	2.4
5.080	10300	190	1.8



Client: Stantec
 Project No: WX19092
 Date: June 17, 2020
 Technologist: Mdnazri Mohidin

Project: C.O.W. Street Investigation
 Site Location: TH20-SS03
 Request No: N/A
 Reviewed By: Caolan McEvoy

Soil Description: Clay

Liquid Limit 45 Plastic Limit 14 Plasticity Index 31 Swell 0.29%

Reporting of these test results constitutes a testing service only. Engineering interpretation or evaluation of the test results will be provided only upon written request. If you are not the Intended recipient please notify us by telephone as soon as possible and either return the message by post or destroy it. If you are not the intended recipient, any use by you of its contents is prohibited.

APPENDIX 'B'

CONCEPTUAL CONSTRUCTION SCHEDULE



City of Winnipeg
Tender 439-2020 - Salter Street Rehabilitation
Slaw Rebchuk Bridge to Cathedral Avenue
- Construction Schedule -

