



THE CITY OF WINNIPEG

BID OPPORTUNITY

BID OPPORTUNITY NO. 807-2015

**2015 REGIONAL STREET RENEWAL PROGRAM: NESS AVENUE EASTBOUND
REHABILITATION – OVERDALE STREET TO QUEEN STREET**

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

- B1.1 2015 Regional Streets Program: Ness Avenue Eastbound – Overdale Street to Queen Street – Major Rehabilitation

B2. SUBMISSION DEADLINE

- B2.1 The Submission Deadline is 12:00 noon Winnipeg time, December 18, 2015.
- B2.2 Bids determined by the Manager of Materials to have been received later than the Submission Deadline will not be accepted and will be returned upon request.
- B2.3 The Contract Administrator or the Manager of Materials may extend the Submission Deadline by issuing an addendum at any time prior to the time and date specified in B2.1.

B3. ENQUIRIES

- B3.1 All enquiries shall be directed to the Contract Administrator identified in D3.1.
- B3.2 If the Bidder finds errors, discrepancies or omissions in the Bid Opportunity, or is unsure of the meaning or intent of any provision therein, the Bidder shall notify the Contract Administrator of the error, discrepancy or omission, or request a clarification as to the meaning or intent of the provision at least five (5) Business Days prior to the Submission Deadline.
- B3.3 Responses to enquiries which, in the sole judgment of the Contract Administrator, require a correction to or a clarification of the Bid Opportunity will be provided by the Contract Administrator to all Bidders by issuing an addendum.
- B3.4 Responses to enquiries which, in the sole judgment of the Contract Administrator, do not require a correction to or a clarification of the Bid Opportunity will be provided by the Contract Administrator only to the Bidder who made the enquiry.
- B3.5 The Bidder shall not be entitled to rely on any response or interpretation received pursuant to B3 unless that response or interpretation is provided by the Contract Administrator in writing.

B4. CONFIDENTIALITY

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

B5. ADDENDA

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

- B5.2 The Contract Administrator will issue each addendum at least two (2) Business Days prior to the Submission Deadline, or provide at least two (2) Business Days by extending the Submission Deadline.
- B5.2.1 Addenda will be available on the Bid Opportunities page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/bidopp.asp>
- B5.2.2 The Bidder is responsible for ensuring that he/she has received all addenda and is advised to check the Materials Management Division website for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.
- B5.3 The Bidder shall acknowledge receipt of each addendum in Paragraph 10 of Form A: Bid. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.

B6. SUBSTITUTES

- B6.1 The Work is based on the Plant, Materials and methods specified in the Bid Opportunity.
- B6.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.
- B6.3 Requests for approval of a substitute will not be considered unless received in writing by the Contract Administrator at least five (5) Business Days prior to the Submission Deadline.
- B6.4 The Bidder shall ensure that any and all requests for approval of a substitute:
- (a) provide sufficient information and details to enable the Contract Administrator to determine the acceptability of the Plant, Material or method as either an approved equal or alternative;
 - (b) identify any and all changes required in the applicable Work, and all changes to any other Work, which would become necessary to accommodate the substitute;
 - (c) identify any anticipated cost or time savings that may be associated with the substitute;
 - (d) certify that, in the case of a request for approval as an approved equal, the substitute will fully perform the functions called for by the general design, be of equal or superior substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance;
 - (e) certify that, in the case of a request for approval as an approved alternative, the substitute will adequately perform the functions called for by the general design, be similar in substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance.
- B6.5 The Contract Administrator, after assessing the request for approval of a substitute, may in his/her sole discretion grant approval for the use of a substitute as an “approved equal” or as an “approved alternative”, or may refuse to grant approval of the substitute.
- B6.6 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, to the Bidder who requested approval of the substitute.
- B6.6.1 The Contract Administrator will issue an Addendum, disclosing the approved materials, equipment, methods and products to all potential Bidders. The Bidder requesting and obtaining the approval of a substitute shall be responsible for disseminating information regarding the approval to any person or persons he/she wishes to inform.
- B6.7 If the Contract Administrator approves a substitute as an “approved equal”, any Bidder may use the approved equal in place of the specified item.

- B6.8 If the Contract Administrator approves a substitute as an “approved alternative”, any Bidder bidding that approved alternative may base his/her Total Bid Price upon the specified item but may also indicate an alternative price based upon the approved alternative. Such alternatives will be evaluated in accordance with B16.
- B6.9 No later claim by the Contractor for an addition to the Total Bid Price because of any other changes in the Work necessitated by the use of an approved equal or an approved alternative will be considered.

B7. BID COMPONENTS

- B7.1 The Bid shall consist of the following components:
- (a) Form A: Bid;
 - (b) Form B: Prices, hard copy;
 - (c) Bid Security
 - (i) Form G1: Bid Bond and Agreement to Bond, or
Form G2: Irrevocable Standby Letter of Credit and Undertaking, or
a certified cheque or draft;
- B7.2 Further to B7.1, the Bidder should include the written correspondence from the Contract Administrator approving a substitute in accordance with B6.
- B7.3 All components of the Bid shall be fully completed or provided, and submitted by the Bidder no later than the Submission Deadline, with all required entries made clearly and completely, to constitute a responsive Bid.
- B7.4 The Bid shall be submitted enclosed and sealed in an envelope clearly marked with the Bid Opportunity number and the Bidder's name and address.
- B7.4.1 Samples or other components of the Bid which cannot reasonably be enclosed in the envelope may be packaged separately, but shall be clearly marked with the Bid Opportunity number, the Bidder's name and address, and an indication that the contents are part of the Bidder's Bid.
- B7.4.2 A hard copy of Form B: Prices must be submitted with the Bid. If there is any discrepancy between the Adobe PDF version of Form B: Prices and the Microsoft Excel version of Form B: Prices, the PDF version shall take precedence.
- B7.5 Bidders are advised not to include any information/literature except as requested in accordance with B7.1.
- B7.6 Bidders are advised that inclusion of terms and conditions inconsistent with the Bid Opportunity document, including the General Conditions, will be evaluated in accordance with B16.1(a).
- B7.7 Bids submitted by facsimile transmission (fax) or internet electronic mail (e-mail) will not be accepted.
- B7.8 Bids shall be submitted to:
- The City of Winnipeg
Corporate Finance Department
Materials Management Division
185 King Street, Main Floor
Winnipeg, MB R3B 1J1

B8. BID

- B8.1 The Bidder shall complete Form A: Bid, making all required entries.

B8.2 Paragraph 2 of Form A: Bid shall be completed in accordance with the following requirements:

- (a) if the Bidder is a sole proprietor carrying on business in his/her own name, his/her name shall be inserted;
- (b) if the Bidder is a partnership, the full name of the partnership shall be inserted;
- (c) if the Bidder is a corporation, the full name of the corporation shall be inserted;
- (d) if the Bidder is carrying on business under a name other than his/her own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.

B8.2.1 If a Bid is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B8.2.

B8.3 In Paragraph 3 of Form A: Bid, the Bidder shall identify a contact person who is authorized to represent the Bidder for purposes of the Bid.

B8.4 Paragraph 12 of Form A: Bid shall be signed in accordance with the following requirements:

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

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

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

B9. PRICES

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

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

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

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

B10. DISCLOSURE

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

B10.2 The Persons are:

- (a) Uni-Jet Industrial Pipe Services – CCTV sewer inspection services used to determine land drainage sewer repairs.

B11. QUALIFICATION

B11.1 The Bidder shall:

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

B11.2 The Bidder and any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

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

B11.3 The Bidder and/or any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

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

B11.4 Further to B11.3(c), the Bidder shall, within five (5) Business Days of a request by the Contract Administrator, provide proof satisfactory to the Contract Administrator that the Bidder/Subcontractor has a workplace safety and health program meeting the requirements of The Workplace Safety and Health Act (Manitoba), by providing:

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

B11.5 The Bidder shall submit, within three (3) Business Days of a request by the Contract Administrator, proof satisfactory to the Contract Administrator of the qualifications of the Bidder and of any proposed Subcontractor.

B11.6 The Bidder shall provide, on the request of the Contract Administrator, full access to any of the Bidder's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Bidder's equipment and facilities are adequate to perform the Work.

B12. BID SECURITY

B12.1 The Bidder shall provide bid security in the form of:

- (a) a bid bond, in the amount of at least ten percent (10%) of the Total Bid Price, and agreement to bond of a company registered to conduct the business of a surety in Manitoba, in the form included in the Bid Submission (Form G1: Bid Bond and Agreement to Bond); or
- (b) an irrevocable standby letter of credit, in the amount of at least ten percent (10%) of the Total Bid Price, and undertaking issued by a bank or other financial institution registered to conduct business in Manitoba and drawn on a branch located in Winnipeg, in the form included in the Bid Submission (Form G2: Irrevocable Standby Letter of Credit and Undertaking); or
- (c) a certified cheque or draft payable to "The City of Winnipeg", in the amount of at least fifty percent (50%) of the Total Bid Price, drawn on a bank or other financial institution registered to conduct business in Manitoba.

B12.1.1 If the Bidder submits alternative bids, the bid security shall be in the amount of the specified percentage of the highest Total Bid Price submitted.

B12.1.2 All signatures on bid securities shall be original.

B12.1.3 The Bidder shall sign the Bid Bond.

B12.1.4 The Surety shall sign and affix its corporate seal on the Bid Bond and the Agreement to Bond.

B12.2 The bid security of the successful Bidder and the next two lowest evaluated responsive and responsible Bidders will be released by the City when a Contract for the Work has been duly executed by the successful Bidder and the performance security furnished as provided herein. The bid securities of all other Bidders will be released when a Contract is awarded.

B12.2.1 Where the bid security provided by the successful Bidder is in the form of a certified cheque or draft pursuant to B12.1(c), it will be deposited and retained by the City as the performance security and no further submission is required.

B12.2.2 The City will not pay any interest on certified cheques or drafts furnished as bid security or subsequently retained as performance security.

B12.3 The bid securities of all Bidders will be released by the City as soon as practicable following notification by the Contract Administrator to the Bidders that no award of Contract will be made pursuant to the Bid Opportunity.

B13. OPENING OF BIDS AND RELEASE OF INFORMATION

B13.1 Bids will be opened publicly, after the Submission Deadline has elapsed, in the office of the Corporate Finance Department, Materials Management Division, or in such other office as may be designated by the Manager of Materials.

B13.1.1 Bidders or their representatives may attend.

B13.1.2 Bids determined by the Manager of Materials, or his/her designate, to not include the bid security specified in B12 will not be read out.

B13.2 Following the submission deadline, the names of the Bidders and their Total Bid Prices (unevaluated, and pending review and verification of conformance with requirements) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>

B13.3 After award of Contract, the name(s) of the successful Bidder(s) and the Contract amount(s) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>

B13.4 The Bidder is advised that any information contained in any Bid may be released if required by City policy or procedures, by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law.

B14. IRREVOCABLE BID

B14.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 11 of Form A: Bid.

B14.2 The acceptance by the City of any Bid shall not release the Bids of the next two lowest evaluated responsive Bidders and these Bidders shall be bound by their Bids on such Work until a Contract for the Work has been duly executed and the performance security furnished as herein provided, but any Bid shall be deemed to have lapsed unless accepted within the time period specified in Paragraph 11 of Form A: Bid.

B15. WITHDRAWAL OF BIDS

B15.1 A Bidder may withdraw his/her Bid without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.

B15.1.1 Notwithstanding C23.3, the time and date of receipt of any notice withdrawing a Bid shall be the time and date of receipt as determined by the Manager of Materials.

B15.1.2 The City will assume that any one of the contact persons named in Paragraph 3 of Form A: Bid or the Bidder's authorized representatives named in Paragraph 12 of Form A: Bid, and only such person, has authority to give notice of withdrawal.

B15.1.3 If a Bidder gives notice of withdrawal prior to the Submission Deadline, the Manager of Materials will:

- (a) retain the Bid until after the Submission Deadline has elapsed;
- (b) open the Bid to identify the contact person named in Paragraph 3 of Form A: Bid and the Bidder's authorized representatives named in Paragraph 12 of Form A: Bid; and
- (c) if the notice has been given by any one of the persons specified in B15.1.3(b), declare the Bid withdrawn.

B15.2 A Bidder who withdraws his/her Bid after the Submission Deadline but before his/her Bid has been released or has lapsed as provided for in B14.2 shall be liable for such damages as are imposed upon the Bidder by law and subject to such sanctions as the Chief Administrative Officer considers appropriate in the circumstances. The City, in such event, shall be entitled to all rights and remedies available to it at law, including the right to retain the Bidder's bid security.

B16. EVALUATION OF BIDS

B16.1 Award of the Contract shall be based on the following bid evaluation criteria:

- (a) compliance by the Bidder with the requirements of the Bid Opportunity, or acceptable deviation therefrom (pass/fail);
- (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B11 (pass/fail);
- (c) Total Bid Price;

(d) economic analysis of any approved alternative pursuant to B6.

B16.2 Further to B16.1(a), the Award Authority may reject a Bid as being non-responsive if the Bid is incomplete, obscure or conditional, or contains additions, deletions, alterations or other irregularities. The Award Authority may reject all or any part of any Bid, or waive technical requirements or minor informalities or irregularities, if the interests of the City so require.

B16.3 Further to B16.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in his/her Bid or in other information required to be submitted, that he/she is responsible and qualified.

B16.4 Further to B16.1(c), the Total Bid Price shall be the sum of the quantities multiplied by the unit prices for each item shown on Form B: Prices.

B16.4.1 Further to B16.1(a), in the event that a unit price is not provided on Form B: Prices, the City will determine the unit price by dividing the Amount (extended price) by the approximate quantity, for the purposes of evaluation and payment.

B16.4.2 The electronic Form B: Prices and the formulas imbedded in that spreadsheet are only provided for the convenience of Bidders. The City makes no representations or warranties as to the correctness of the imbedded formulas. It is the Bidder's responsibility to ensure the extensions of the unit prices and the sum of Total Bid Price performed as a function of the formulas within the electronic Form B: Prices are correct.

B17. AWARD OF CONTRACT

B17.1 The City will give notice of the award of the Contract or will give notice that no award will be made.

B17.2 The City will have no obligation to award a Contract to a Bidder, even though one or all of the Bidders are determined to be responsible and qualified, and the Bids are determined to be responsive.

B17.2.1 Without limiting the generality of B17.2, the City will have no obligation to award a Contract where:

- (a) the prices exceed the available City funds for the Work;
- (b) the prices are materially in excess of the prices received for similar work in the past;
- (c) the prices are materially in excess of the City's cost to perform the Work, or a significant portion thereof, with its own forces;
- (d) only one Bid is received; or
- (e) in the judgment of the Award Authority, the interests of the City would best be served by not awarding a Contract.

B17.3 The Work of this Contract is contingent upon Council approval of sufficient funding in the ^ Capital Budget. If the Capital Budget approved by Council does not include sufficient funding for the Work, the City will have no obligation to award a Contract.

B17.4 Where an award of Contract is made by the City, the award shall be made to the responsible and qualified Bidder submitting the lowest evaluated responsive Bid, in accordance with B16.

B17.4.1 Following the award of contract, a Bidder will be provided with information related to the evaluation of his/her Bid upon written request to the Contract Administrator.

PART C - GENERAL CONDITIONS

C0. GENERAL CONDITIONS

- C0.1 The *General Conditions for Construction* (Revision 2006 12 15) are applicable to the Work of the Contract.
- C0.1.1 The *General Conditions for Construction* are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at http://www.winnipeg.ca/matmgt/gen_cond.stm
- C0.2 A reference in the Bid Opportunity to a section, clause or subclause with the prefix “**C**” designates a section, clause or subclause in the *General Conditions for Construction*.

PART D - SUPPLEMENTAL CONDITIONS

GENERAL

D1. GENERAL CONDITIONS

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

D2. SCOPE OF WORK

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

- (a) Major Rehabilitation
 - (i) Ness Avenue (Eastbound Lanes) – Overdale Street to Queen Street.

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

- (a) Land Drainage
 - (i) Cleaning of side street catchpits/catchbasins and associated drainage connection pipe/catchpit leads;
 - (ii) Installation of new catchbasins, catchpits, and manholes;
 - (iii) Replacement/renewal of land drainage sewers by trenched method;
 - (iv) Installation of sewer service pipe, drainage connection pipe;
 - (v) Connections to existing sewers and manholes.
- (b) Roadway Rehabilitation
 - (i) Construction of temporary asphalt pavements for cross-overs;
 - (ii) Planing of existing asphalt overlay (average depth – 50 mm);
 - (iii) Removal of existing curb, sidewalk, and medians as required;
 - (iv) Adjustment of catchbasins, catchpits, manholes, drainage inlets, and other pavement appurtenances;
 - (v) Full depth (200 mm) concrete repairs of existing slabs and joints;
 - (vi) Partial depth patching of existing joints;
 - (vii) Construct at-grade bus stop concrete pads;
 - (viii) Construction of new monolithic curb and sidewalk on south boulevard (including paving stone bands and detectible tiles);
 - (ix) Construction of slip-formed median barrier curb, and curbs at intersections and side streets as required;
 - (x) Renewal of miscellaneous concrete slabs, including medians and bullnoses as required;
 - (xi) Boulevard grading, seeding/sodding, and median tree well rehabilitation;
 - (xii) Cleaning of all catchbasins and catchpits in the project area
 - (xiii) Asphalt patching over full and partial depth concrete repairs;
 - (xiv) Placement of mainline asphalt overlay (average thickness – 75 mm) utilizing automatic grade control for final lift;
 - (xv) Placement of tie-in asphalt overlay for median openings, side streets, and private approaches;
 - (xvi) Restoration of temporary cross-overs.

D3. CONTRACT ADMINISTRATOR

D3.1 The Contract Administrator is Dillon Consulting Limited, represented by:

David Wiebe, P.Eng., PTOE
Project Manager
1558 Willson Place
Winnipeg, Manitoba R3T 0Y4

Telephone No. 204 453-2301
Facsimile No. 204 452-4412

D3.2 At the pre-construction meeting, David Wiebe, P.Eng., PTOE will identify additional personnel representing the Contract Administrator and their respective roles and responsibilities for the Work.

D3.3 Bids Submissions must be submitted to the address in B7.8

D4. CONTRACTOR'S SUPERVISOR

D4.1 At the pre-construction meeting, the Contractor shall identify his/her designated supervisor and any additional personnel representing the Contractor and their respective roles and responsibilities for the Work.

D4.2 At least two (2) Business Days prior to the commencement of any Work on the Site, the Contractor shall provide the Contract Administrator with a phone number where the supervisor identified in D4.1 or an alternate can be contacted twenty-four (24) hours a day to respond to an emergency.

D5. OWNERSHIP OF INFORMATION, CONFIDENTIALITY AND NON DISCLOSURE

D5.1 The Contract, all deliverables produced or developed, and information provided to or acquired by the Contractor are the property of the City and shall not be appropriated for the Contractors own use, or for the use of any third party.

D5.2 The Contractor shall not make any public announcements or press releases regarding the Contract, without the prior written authorization of the Contract Administrator.

D5.3 The following shall be confidential and shall not be disclosed by the Contractor to the media or any member of the public without the prior written authorization of the Contract Administrator:

- (a) information provided to the Contractor by the City or acquired by the Contractor during the course of the Work;
- (b) the Contract, all deliverables produced or developed; and
- (c) any statement of fact or opinion regarding any aspect of the Contract.

D5.4 A Contractor who violates any provision of D5 may be determined to be in breach of Contract.

D6. NOTICES

D6.1 Except as provided for in C23.2.2, all notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents, or other communications to the Contractor shall be sent to the address or facsimile number identified by the Contractor in Paragraph 2 of Form A: Bid.

D6.2 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents, or other communications to the City, except as expressly otherwise required in D6.3 or elsewhere in the Contract, shall be sent to the attention of the Contract Administrator at the facsimile number identified in D3.1.

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

The City of Winnipeg
Legal Services Department
Attn: Director of Legal Services

Facsimile No.: 204-947-9155

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

D7. FURNISHING OF DOCUMENTS

- D7.1 Upon award of the Contract, the Contractor will be provided with five (5) complete sets of the Bid Opportunity. If the Contractor requires additional sets of the Bid Opportunity, they will be supplied to him/her at cost.

SUBMISSIONS

D8. AUTHORITY TO CARRY ON BUSINESS

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

D9. SAFE WORK PLAN

- D9.1 The Contractor shall provide the Contract Administrator with a Safe Work Plan at least five (5) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.
- D9.2 The Safe Work Plan shall be prepared and submitted in the format shown in the City's template which is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/safety/default.stm>

D10. INSURANCE

- D10.1 The Contractor shall provide and maintain the following insurance coverage:
- (a) commercial general liability insurance, in the amount of at least two million dollars (\$2,000,000.00) inclusive, with The City of Winnipeg added as an additional insured, with a cross-liability clause, such liability policy to also contain contractual liability, unlicensed motor vehicle liability, non-owned automobile liability, broad form property damage cover and products and completed operations, to remain in place at all times during the performance of the Work and throughout the warranty period;
 - (b) if applicable, Automobile Liability Insurance covering all motor vehicles, owned and operated and used or to be used by the Contractor directly or indirectly in the performance of the Work. The Limit of Liability shall not be less than two million dollars (\$2,000,000.00) inclusive for loss or damage including personal injuries and death resulting from any one accident or occurrence;
 - (c) an all risks Installation Floater carrying adequate limits to cover all machinery, equipment, supplies, and/or materials intended to enter into and form part of any installation.
- D10.2 Deductibles shall be borne by the Contractor.

D10.3 The Contractor shall provide the City Solicitor with a certificate(s) of insurance, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Work but in no event later than the date specified in the C4.1 for the return of the executed Contract.

D10.4 The Contractor shall not cancel, materially alter, or cause each policy to lapse without providing at least thirty (30) Calendar Days prior written notice to the Contract Administrator.

D11. PERFORMANCE SECURITY

D11.1 The Contractor shall provide and maintain performance security until the expiration of the warranty period in the form of:

- (a) a performance bond of a company registered to conduct the business of a surety in Manitoba, in the form attached to these Supplemental Conditions (Form H1: Performance Bond), in the amount of fifty percent (50%) of the Contract Price; or
- (b) an irrevocable standby letter of credit issued by a bank or other financial institution registered to conduct business in Manitoba and drawn on a branch located in Winnipeg, in the form attached to these Supplemental Conditions (Form H2: Irrevocable Standby Letter of Credit), in the amount of fifty percent (50%) of the Contract Price; or
- (c) a certified cheque or draft payable to "The City of Winnipeg", drawn on a bank or other financial institution registered to conduct business in Manitoba, in the amount of fifty percent (50%) of the Contract Price.

D11.1.1 Where the performance security is in the form of a certified cheque or draft, it will be deposited by the City. The City will not pay any interest on certified cheques or drafts furnished as performance security.

D11.2 If the bid security provided in his/her Bid was not a certified cheque or draft pursuant to B12.1(c), the Contractor shall provide the City Solicitor with the required performance security within seven (7) Calendar Days of notification of the award of the Contract by way of letter of intent and prior to the commencement of any Work on the Site and in no event later than the date specified in the C4.1 for the return of the executed Contract.

D12. SUBCONTRACTOR LIST

D12.1 The Contractor shall provide the Contract Administrator with a complete list of the Subcontractors whom the Contractor proposes to engage (Form J: Subcontractor List) at or prior to a pre-construction meeting, or at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in the C4.1 for the return of the executed Contract.

D13. 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 two (2) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in the C4.1 for the return of the executed Contract.

D14. DETAILED WORK SCHEDULE

D14.1 The Contractor shall provide the Contract Administrator with a detailed work schedule (Form L: Detailed Work Schedule) at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in the General Conditions for the return of the executed Contract.

SCHEDULE OF WORK

D15. COMMENCEMENT

D15.1 The Contractor shall not commence any Work until he/she is in receipt of a letter of intent from the Award Authority authorizing the commencement of the Work.

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 D4.2.
 - (iv) the Safe Work Plan specified in D9;
 - (v) evidence of the insurance specified in D10;
 - (vi) the performance security specified in D11;
 - (vii) the subcontractor list specified in D12;
 - (viii) the 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 May 9, 2016, and shall commence the Work on Site no later than May 30, 2016, as directed by the Contract Administrator and weather permitting.

D15.4 The City intends to award this Contract by February 17, 2015

D16. WORKING DAYS

D16.1 Further to C1.1(jj);

D16.1.1 The Contract Administrator will determine daily if a Working Day has elapsed and will record his/her assessment. On a weekly basis the Contract Administrator will provide the Contractor with a record of the Working Days assessed for the preceding week. The Contractor shall sign each report signifying that he/she agrees with the Contract Administrator's determination of the Working Days assessed for the report period.

D16.1.2 Work done to restore the Site to a condition suitable for Work, shall not be considered "work" as defined in the definition of a Working Day.

D16.1.3 When the Work includes two or more major types of Work that can be performed under different atmospheric conditions, the Contract Administrator shall consider all major types of Work in determining whether the Contractor was able to work in assessing Working Days.

D17. RESTRICTED WORK HOURS

D17.1 Further to clause 3.10 of CW 1130, the Contractor shall require written permission forty-eight (48) hours in advance from the Contract Administrator for any work to be performed between 2000 hours and 0700 hours, or on Saturdays, Sundays, Statutory Holidays, and or Civic Holidays.

D18. WORK BY OTHERS

D18.1 Work by others on or near the Site will include but not necessarily be limited to:

- (a) MTS

- (i) Miscellaneous adjustments of 4 to 7 manholes, manhole chamber rebuilds, and relocation of MTS boxes and other appurtenances may be required within this Contract.
- (b) Manitoba Hydro
 - (i) Miscellaneous adjustments of manholes and relocation of Manitoba Hydro boxes and other appurtenances may be required within this Contract;
 - (ii) Spot hydro pole replacements are expected to be undertaken at the same time as this project. The Contractor is required to box out sidewalk and backfill with base course around hydro pole replacement sites at locations marked by the Contract Administrator.
- (c) City of Winnipeg Traffic Signals
 - (i) Reversing signal heads at Berry Street, Ferry Road, and Linwood Street for traffic staging;
 - (ii) Upgrading intersections at Berry Street, Ferry Road and Linwood Street, and Amherst Street Pedestrian Corridor;
 - (iii) Installation of loop detectors and lead wires in underlying concrete pavement or final asphalt pavement as required;
 - (iv) Other miscellaneous adjustments and relocation of signal poles and other appurtenances may be required within this Contract.
- (d) City of Winnipeg Traffic Services
 - (i) Erection and maintenance of temporary traffic control (see E6);
 - (ii) Removal and installation of new traffic signage and line painting.
- (e) City of Winnipeg Transit Department.
 - (i) Miscellaneous adjustments and other appurtenances may be required within this Contract;
 - (ii) Temporary removal of bus shelters to facilitate sidewalk works may be required within this Contract.
- (f) Teraspan
 - (i) Potential relocation/protection of appurtenances.

D19. SEQUENCE OF WORK

D19.1 Further to C6.1, the sequence of work shall be as follows:

D19.1.1 The Work shall be divided into three Stages. Stages are further subdivided into major construction activities. Typical major construction activities are described in D2.1.

D19.1.2 Refer to the Contract Drawings for the Stages and Major Construction Activities. The stages are:

- (a) Stage 1: Ness EB – Overdale to Collegiate;
- (b) Stage 2: Ness EB – Collegiate to Queen;
- (c) Stage 3: Cross-Over Restorations.

D19.1.3 It should be noted that more than one concrete crew may be required at any one time to complete the Work within the allotted number of Working Days.

D19.1.4 Within each Stage, placing the topsoil and finished grading of all boulevard and median areas shall be completed prior to commencing construction of the asphaltic concrete overlay, including the scratch course.

D19.1.5 At the end of the day of asphalt placement, there shall be no drop-off accessible to traffic along any longitudinal joint, excepting the longitudinal joint between the gutter and approaches, and any median openings available to traffic.

D19.1.6 Immediately following the completion of the asphaltic concrete works of each Stage, 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.

D20. SUBSTANTIAL PERFORMANCE

D20.1 The Contractor shall achieve Substantial Performance within ninety-five (95) consecutive Working Days of the commencement of the Work as specified in D15.

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

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

D21. TOTAL PERFORMANCE

D21.1 The Contractor shall achieve Total Performance within one hundred (100) consecutive Working Days of the commencement of the Work as specified in D15.

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 Substantial Performance or Total Performance in accordance with the Contract by the days fixed herein for same, the Contractor shall pay the City the following amounts per Working Day for each and every Working Day following the days fixed herein for same during which such failure continues:

(a) Substantial Performance –Three thousand dollars (\$3000.00);

(b) Total Performance –Fifteen hundred dollars (\$1500.00).

D22.2 The amounts specified for liquidated damages in D22.1 are based on a genuine pre-estimate of the City's losses in the event that the Contractor does not achieve, 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

D23.1 Description

D23.1.1 This specification shall cover the accelerated completion of this contract.

D23.2 Acceleration of Work

- D23.2.1 At no risk to the City, the Contractor at his own initiative, means, and expense, may undertake to complete the Works of this Contract to facilitate the safe reopening of the entire site to traffic and pedestrians in advance of the number of Working Days specified for Total Performance to be achieved as specified in D21.
- D23.2.2 Reopening of the entire site shall occur when all Work items listed in D19 are complete, including boulevard grading, topsoil, sod, and site cleanup.
- D23.2.3 In recognition of the fact that an early completion of the Works would benefit 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 ten (10) Working days.
- D23.2.4 It is noted that certain delays on road rehabilitation 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 Total Performance timeframe listed in D21 will be given for events of this sort which cause construction delay and are resolved within 48 hours of the requirement of change becoming known to both the Contractor and the Contract Administrator.
- D23.3 Method of Measurement
- D23.3.1 Subject to clause D23.2.3 hereof, accelerated completion will be measured on a unit basis per diem. The number of days to be paid for will be the total number of Working Days the Work is complete and safely reopened to vehicular and pedestrian traffic in advance of the number of working days specified for Total Performance to be achieved specified here in D21, with all specified Works listed in D19 completed and acceptable to the Contract Administrator.
- D23.4 Basis of Payment
- D23.4.1 Subject to clause D23.2.3 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 for 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. SCHEDULED MAINTENANCE

- D24.1 The Contractor shall perform the following scheduled maintenance in the manner and within the time periods required by the Specifications:
- (a) Reflective Crack Maintenance (during one year warranty period) as specified in CW 3250-R7;
 - (b) Sodding (maintenance period) as specified in CW 3510 – R9;
 - (c) Seeding (maintenance period) as specified in CW 3520 – R7.
- D24.2 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

D25. JOB MEETINGS

- D25.1 Regular weekly job meetings will be held at the Site. These meetings shall be attended by a minimum of one representative of the Contract Administrator, one representative of the City and one representative of the Contractor. Each representative shall be a responsible person capable of expressing the position of the Contract Administrator, the City, and the Contractor respectively on any matter discussed at the meeting including the Work schedule and the need to make any revisions to the Work schedule. The progress of the Work will be reviewed at each of these meetings.
- D25.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he/she deems it necessary.

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

- D26.1 Further to C6.24, the Contractor shall be the Prime Contractor and shall serve as, and have the duties of the Prime Contractor in accordance with The Workplace Safety and Health Act (Manitoba).

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

- D27.1 Further to B11.4, the Contractor/Subcontractor must, throughout the term of the Contract, have a Workplace Safety and Health Program meeting the requirements of The Workplace Safety and Health Act (Manitoba). At any time during the term of the Contract, the City may, at its sole discretion and acting reasonably, require updated proof of compliance, as set out in B11.4.

MEASUREMENT AND PAYMENT

D28. PAYMENT

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

WARRANTY

D29. WARRANTY

- D29.1 Notwithstanding C13.2, the warranty period shall begin on the date of Substantial Performance and shall expire one (1) year thereafter unless extended pursuant to C13.2.1 or C13.2.2, in which case it shall expire when provided for thereunder.
- D29.2 Notwithstanding C13.2 or D29.1, the Contract Administrator may permit the warranty period for a portion or portions of the Work to begin prior to the date of Substantial Performance if:
- (a) a portion of the Work cannot be completed because of unseasonable weather or other conditions reasonably beyond the control of the Contractor but that portion does not prevent the balance of the Work from being put to its intended use.
- D29.2.1 In such case the date specified by the Contract Administrator for the warranty period to begin shall be substituted for the date specified in C13.2 for the warranty period to begin.

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

BID OPPORTUNITY NO. 807-2015

2015 REGIONAL STREETS PROGRAM: NESS AVENUE EASTBOUND – OVERDALE STREET TO
QUEEN STREET – MAJOR REHABILITATION

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)

All demands for payment shall specifically state that they are drawn under this Standby Letter of Credit.

Subject to the condition hereinafter set forth, this Standby Letter of Credit will expire on

(Date)

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

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

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

(Name of bank or financial institution)

Per: _____
(Authorized Signing Officer)

Per: _____
(Authorized Signing Officer)

FORM J: SUBCONTRACTOR LIST
 (See D12)

2015 REGIONAL STREETS PROGRAM: NESS AVENUE EASTBOUND – OVERDALE STREET TO
 QUEEN STREET – MAJOR REHABILITATION

<u>Portion of the Work</u>	<u>Name</u>	<u>Address</u>
<i>LAND DRAINAGE :</i>		
<i>Supply of Materials:</i>		
Catchbasins/Catchpits/Manholes		
Land Drainage Pipe		
Connecting Pipe		
<i>Installation/Placement</i>		
Catchbasins/Catchpits/Manholes		
Land Drainage Pipe		
Connecting Pipe		
"Sewer Televising"		
<i>ROAD REHABILITATION:</i>		
<i>Supply of Materials:</i>		
Concrete		
Asphalt		
Base Course & Sub-Base		
Topsoil and Sodding		
<i>Installation/Placement</i>		
Asphalt Planing		
Concrete		
Asphalt		
Base Course		
Topsoil and Sodding		
<i>OTHERS:</i>		

FORM K: EQUIPMENT
(See D13)

2015 REGIONAL STREETS PROGRAM: NESS AVENUE EASTBOUND – OVERDALE STREET TO
QUEEN STREET – MAJOR REHABILITATION

1. Category/type: Asphalt Planing

Make/Model/Year: _____ Serial No.: _____

Registered owner: _____

Make/Model/Year: _____ Serial No.: _____

Registered owner: _____

Make/Model/Year: _____ Serial No.: _____

Registered owner: _____

2. Category/type: Slip-form Concrete Curbing

Make/Model/Year: _____ Serial No.: _____

Registered owner: _____

Make/Model/Year: _____ Serial No.: _____

Registered owner: _____

Make/Model/Year: _____ Serial No.: _____

Registered owner: _____

3. Category/type: Asphalt Paving

Make/Model/Year: _____ Serial No.: _____

Registered owner: _____

Make/Model/Year: _____ Serial No.: _____

Registered owner: _____

Make/Model/Year: _____ Serial No.: _____

Registered owner: _____

FORM L: DETAILED WORK SCHEDULE
 (See D14)

**2015 REGIONAL STREETS PROGRAM: NESS AVENUE EASTBOUND – OVERDALE STREET TO
 QUEEN STREET – MAJOR REHABILITATION**

For each item of Work, indicate the cumulative percentage proposed to be completed by the end of each time period until 100% completion is achieved.						
Items of Work	Time Period in Working Days					
	20	40	60	80	95	100
Stage 1: Ness EB - Overdale to Collegiate						
Cross-Overs						
Planing						
Land Drainage						
Roadway Concrete Works						
Monolithic Curb and Sidewalk						
Slip-formed median barrier curb and medians						
Asphalt Overlay						
Stage 2: Ness EB - Collegiate to Queen						
Planing						
Land Drainage						
Roadway Concrete Works						
Monolithic Curb and Sidewalk						
Slip-formed median barrier curb and medians						
Asphalt Overlay						
Stage 3: Cross-Over Restorations						
Removing Cross-Overs						
Detectable Tiles on N side of Ness						

PART E - SPECIFICATIONS

GENERAL

E1. APPLICABLE SPECIFICATIONS AND DRAWINGS

E1.1 These Specifications shall apply to the Work.

E1.2 *The City of Winnipeg Standard Construction Specifications* in its entirety, whether or not specifically listed on Form B: Prices, shall apply to the Work.

E1.2.1 *The City of Winnipeg Standard Construction Specifications* is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/Spec/Default.stm>

E1.2.2 The version in effect three (3) Business Days before the Submission Deadline shall apply.

E1.2.3 Further to C2.4(d), Specifications included in the Bid Opportunity shall govern over *The City of Winnipeg Standard Construction Specifications*.

E1.3 The following are applicable to the Work:

<u>Drawing No.</u>	<u>Drawing Name/Title</u>	<u>Drawing (Original) Sheet Size</u>
0	Cover Sheet	A1
1	Horizontal Geometry – 1 of 2	A1
2	Horizontal Geometry – 2 of 2	A1
3	Plan-Profile – STA:0+430 to 0+595	A1
4	Plan-Profile – STA:0+595 to 0+755	A1
5	Plan-Profile – STA:0+755 to 0+915	A1
6	Plan-Profile – STA:0+915 to 1+075	A1
7	Plan-Profile – STA:1+075 to 1+235	A1
8	Plan-Profile – STA:1+235 to 1+395	A1
9	Plan-Profile – STA:1+395 to 1+555	A1
10	Plan-Profile – STA:1+555 to 1+715	A1
11	Plan-Profile – STA:1+715 to 1+875	A1
12	Plan-Profile – STA:1+875 to 2+035	A1
13	Plan-Profile – STA:2+035 to 2+195	A1
14	Cross-Sections and Details	A1
15	Traffic Staging – Stage 1	A1
16	Traffic Staging – Stage 2	A1
17	Traffic Staging – Stage 3	A1

E2. PAVEMENT CORE REPORT

E2.1 Further to C3.1, the pavement core report is provided to aid the Contractor's evaluation of the pavement structure and/or existing soil conditions. The pavement core 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 20 square metres, a height of 2.4 m with two (2) windows for cross ventilation and a door entrance with a suitable lock;

- (d) The building shall be suitable for all weather use. It shall be equipped with an electric heater and air conditioner so that the room temperature can be maintained between either 16-18°C or 24-25°C;
 - (e) The building shall be adequately lighted with fluorescent fixtures and have a minimum of three (3) wall outlets;
 - (f) Provide a medium sized fridge, microwave, water cooler with disposable cups and coffee maker;
 - (g) The building shall be furnished with one (1) desk, one (1) drafting table, one (1) meeting table, one (1) stool, one (1) legal size filing cabinet, and a minimum of eight (8) chairs;
 - (h) A portable toilet shall be located near the field office building. The toilet shall have a locking door and be for the exclusive use of the Contract Administrator and other personnel from the City;
 - (i) The field office building and the portable toilet shall be cleaned on a weekly basis immediately prior to each site meeting. The Contract Administrator may request additional cleaning when he/she deems it necessary.
- 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 Substantial 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 m of trees;
 - (b) Trees identified to be at risk by the Contract Administrator are to be strapped with 25 x 100 x 2400 mm 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 one and half (1.5) times the diameter (measured in inches), with the outcome read in feet, from the closest edge of the trunk. Where roots must be cut to facilitate excavation, they shall be pruned neatly at the face of excavation;
 - (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 and 3.7 of CW 1130:

- (a) Where directed, the Contractor shall construct and maintain temporary asphalt ramps to alleviate vertical pavement obstructions such as manholes and planing drop-offs to the satisfaction of the Contract Administrator. Payment shall be in accordance with CW3410;
- (b) In accordance with the Manual of Temporary Traffic Control in Work Areas on City Streets, the Contractor ("Agency" in the manual) shall make arrangements with the Traffic Services Branch of the City of Winnipeg to place all temporary regulatory signs. The Contractor shall bear all costs associated with the placement of temporary traffic control devices by the Traffic Services Branch of the City of Winnipeg in connection with the works undertaken by the Contractor.

E6. TRAFFIC MANAGEMENT

E6.1 See the applicable traffic staging Contract Drawings for details and order of the contract traffic management.

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 provide access to all side streets in accordance with E7.4 to permit the normal collection vehicles to collect the materials on front streets of property owners south of Ness Avenue to the nearest cross street to the south (Bruce Avenue or Portage Avenue).

E7.2 The Contractor shall be responsible for providing the Contract Administrator a minimum of one week notice prior to the start of construction of Phase 1 and Phase 2. The Contract Administrator shall be responsible for communicating this change to the affected property owners a minimum of four (4) days prior to the first front street pick up collection day. The property owners will be responsible for moving their refuse/recycling containers to the front street and back onto their property following refuse/recycling collection. The Contractor will not be responsible for any moving of refuse/recycling containers.

E7.3 Collection Schedule:

Ness Avenue – Overdale Street to Queen Street.

<i>Collection Day(s):</i>	Friday
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E7.4 Access will be required for refuse and/or recycling collection vehicles to all side streets Friday afternoons (from 1200 to 1500) bounded by Ness Avenue to the north, either Bruce Avenue or Portage Avenue to the south, and from Overdale Street to Ferry Street to the west and east respectively during Phase 1, and Ferry Street to Queen Street to the east and west respectively for Phase 2.

E7.5 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 if necessary in locations such as open excavations that are adjacent to pedestrian facilities. The Contractor shall be responsible for maintaining the snow fence in a proper working condition. No measurement for payment shall be made for this work.

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 (1) 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. SIGN SUPPORT CLAMPS

- E12.1 The Contractor shall install all new sign support clamps at the locations shown on the Drawings or as directed by the Contract Administrator. The City shall supply all sign support clamps.
- E12.2 All costs in connection with the installation of sign support clamps are incidental to the Contract.

E13. CLEANING OF DRAINAGE CONNECTION PIPES AND CATCH PITS/CATCH BASINS

DESCRIPTION

- E13.1 General
- (a) Further to CW 2140, this specification covers the cleaning of drainage connection pipes (catchpit leads) and removal of debris from catchpits and catchbasins. Most catchpits are located at sidestreet intersections, with their drainage connection pipes typically no more than 5 m in length to the catchbasin.
- E13.2 Referenced Standard Construction Specifications
- (a) CW 2140 – Sewer and Manhole Cleaning

MATERIALS AND EQUIPMENT

- E13.3 General
- (a) All material and equipment supplied under this Specification shall be of a type approved by the Contract Administrator, and shall be subject to inspection by the Contract Administrator.
- (b) The equipment shall be in good working condition and shall be so maintained for the duration of the Contract.
- E13.4 Equipment
- (a) Equipment as per Clause 3.1, 3.2, 3.3 and 3.4 of CW 2140.

CONSTRUCTION METHODS

E13.5 General

- (a) Construction shall take place in accordance with CW 2140 for the cleaning of drainage connection pipes and associated catchpits/catchbasins as indicated by the Contract Administrator.

E13.6 Cleaning of Drainage Connection Pipes

- (a) The cleaning of drainage connection pipes shall be done in accordance with Clause 3.5 of CW 2140.

E13.7 Cleaning of Catchpits

- (a) The cleaning of the associated catchpits/catchbasins shall be done in accordance with Clause 3.10 of CW 2140.
- (b) Debris removal for the associated catchpits/catchbasins shall be done in accordance with Clause 3.9 of CW 2140.

MEASUREMENT AND PAYMENT

E13.8 Cleaning of drainage connection pipes will be measured by a lineal metre basis and will be paid based on the unit price per lineal metre for "Cleaning of Drainage Connection Pipes" measured as specified herein, 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.

E13.9 Cleaning of catchpits/catchbasins, including debris removal, will be measured on a per unit basis and will be paid based on the unit price for "Cleaning of Catchpits/Catchbasins" measured as specified herein, 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.

E14. ASPHALT PATCHING OF MISCELLANEOUS CONCRETE

DESCRIPTION

E14.1 General

- (a) This specification covers the placement of asphalt patches in various situations to prepare a concrete pavement for subsequent placement of mainline asphalt pavement overlay. This includes patching full depth concrete repairs, cracks and joints, and vertical faults.
- (b) Referenced Standard Construction Specifications
 - (i) CW 1130-R2 - Site Requirements;;
 - (ii) CW 3250-R7 – Joint and Crack Maintenance;
 - (iii) CW 3410-R10 – Asphaltic Concrete Pavement Works.

MATERIAL AND EQUIPMENT

E14.2 Asphalt Materials

- (a) Asphalt material supplied shall be as per CW 3250 (Type 1 Asphalt Material).

E14.3 Equipment

- (a) Equipment as per CW 3410-R10 Clause 8.

CONSTRUCTION METHODS

E14.4 Full Depth Concrete Repairs

- (a) Place asphaltic concrete over the newly constructed joint repair where there is a minimum of 20 mm elevation difference between repair surface and adjacent pavement surface. Remove any loose or debonded asphalt at the joint perimeter and place new asphaltic concrete in these areas as well.
- (b) Dispose of all material in accordance with Section 3.4 of CW 1130-R2.
- (c) Prior to placement of asphaltic concrete patching material, ensure surface is clean and dry.
- (d) Prepare the joint surface with a uniform application of Tack Coat applied in small quantities sufficient to wet the concrete surface.
- (e) Place and compact asphaltic concrete over the joint repair in accordance with CW 3410-R8 Clause 9.3 and to the satisfaction of the Contract Administrator so that the finished elevation of the patch is flush with surrounding asphalt surface.
- (f) Compact the asphalt material to an average ninety five percent (95%) of the 75 blow Marshall Density of the paving mixture with no individual test being less than ninety percent (90%).
- (g) Ensure that no traffic is allowed to cross the patched area until the asphalt has cooled to atmospheric temperature.

E14.4.1 Crack/Joint Patching

- (a) Construction Methods as per CW 3250-R7 Clause 3.4.

MEASUREMENT AND PAYMENT

- E14.4.2 Asphalt Patching of Miscellaneous Concrete will be measured on an area basis and paid for at the Contract Unit Price per square metre for "Asphalt Patching of Miscellaneous Concrete". The area to be paid for will be the total number of square metres of full depth joints, cracks and joints, and vertical faults patched in accordance with this specification, accepted, and measured by the Contract Administrator.

E15. PARTIAL DEPTH JOINT REPAIRS

DESCRIPTION

E15.1 General

- E15.1.1 This specification covers the Partial Depth Patching of existing concrete pavement joints.

E15.2 Referenced Standard Construction Specifications

- (a) CW 3230 – Full-Depth Patching of Existing Slabs and Joints
- (b) CW 3410 – Asphalt Concrete Pavement Works
- (c) CW 3450 – Planing of Pavement

MATERIALS

E15.3 Asphalt Materials

- E15.3.1 Asphalt material will be Type 1A supplied in accordance with Sections 5 and 6 of CW 3410.

E15.4 Tack Coat

- E15.4.1 Tack Coat will be undiluted SS-1 emulsified asphalt or approval equal.

CONSTRUCTION METHODS

E15.5 Planing of Joints

- E15.5.1 Plane existing joints designated by the Contract Administrator to a minimum depth of 50 mm and a maximum of depth 90 mm to remove ravelled or deteriorated concrete. Width of joint to be planed will vary with depth.
- E15.5.2 Should the depth of joint deterioration exceed the maximum indicated, as determined by the Contract Administrator, the entire joint shall be renewed and paid for in accordance with CW 3230 as a full depth joint repair. Planing completed shall be paid for in accordance with E15.7 of this specification.
- E15.5.3 Dispose of material in accordance with Section 3.4 of CW 1130.

E15.6 Placement of Asphalt Material

- E15.6.1 Prior to placement of asphalt material, the planed joint shall be swept or blown clean of any loose material.
- E15.6.2 Apply Tack Coat uniformly on the entire surface of the planed joint. The application rate shall not exceed 0.23 litres per square metre. The planed joint shall be dry prior to applying the tack coat.
- E15.6.3 Place and compact asphalt material in accordance with Section 9.3 of CW 3410 to the satisfaction of the Contract Administrator. The finished elevation of the patch shall be flush with surrounding pavement surface.
- E15.6.4 Compact the asphalt material to an average ninety five percent (95%) of the 75 blow Marshall Density of the paving mixture with no individual test being less than ninety percent (90%).
- E15.6.5 Ensure that no traffic is allowed to travel over the patched area until the asphalt has cooled to atmospheric temperature.

MEASUREMENT AND PAYMENT

E15.7 Partial Depth Planing of Existing Joints

- E15.7.1 Partial Depth Planing of Existing Joints will be measured on an area basis and paid for at the Contract Unit Price per square metre for "Partial Depth Planing of Existing Joints". The area to be paid for will be the total number of square metres of joints planed in accordance with this specification, accepted and measured by the Contract Administrator.

E15.8 Asphalt Patching of Partial Depth Joints

- E15.9 Asphalt Patching of Partial Depth Joints will be measured on an area basis and paid for at the Contract Unit Price per square metre for "Asphalt Patching of Partial Depth Joints". The area to be paid for will be the total number of square metres of joints patched in accordance with this specification, accepted, and measured by the Contract Administrator.

E16. MONOLITHIC CURB AND SIDEWALK CONSTRUCTION

DESCRIPTION

- E16.1 This Specification shall cover the installation of concrete monolithic curb and sidewalk as identified on the Drawings, including areas under indicator strip paving stones.
- E16.2 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 Work as hereinafter specified.
- E16.3 Referenced Specifications and Drawings

- (a) The latest version of the City of Winnipeg Standard Construction Specifications
 - (i) CW 3310 – Portland Cement Concrete Pavement Works;
 - (ii) CW 3325 – Portland Cement Concrete Sidewalk.

MATERIALS AND EQUIPMENT

E16.3.1 General

- (a) All materials supplied under this Specification shall be of a type approved by the Contract Administrator, and shall be subject to inspection and testing by the Contract Administrator.
- (b) The Contractor shall be responsible for the supply, safe storage and handling of all materials as set forth in this Specification. All materials shall be handled in a careful and workmanlike manner, to the satisfaction of the Contract Administrator.
- (c) Concrete mix design shall comply with Clause 6.2a) of the latest version of the CW 3310.
- (d) All other materials as per Clause 5 of the latest version of the CW 3310.

E16.3.2 Equipment

- (a) All equipment shall be of a type acceptable to the Contract Administrator and shall be kept in good working order.

CONSTRUCTION METHODS

- E16.4 Construction shall take place in accordance with the Drawings and CW 3310 and CW 3325.
- E16.5 Blockouts for all indicator strip paving stones in sidewalk to be constructed as shown on the Drawings. All forming is incidental to the unit price Bid for the specification.
- E16.6 Verify dimensions of unit pavers prior to construction of the blockouts. Gaps between pavers and concrete pavement in excess of 6 mm (1/4") will be rejected.
- E16.7 Meet existing grades and slopes unless otherwise indicated on the Drawings. Notify the Contract Administrator where this requirement will not result in positive drainage.
- E16.8 Thickened sidewalk or thickened edge of sidewalk will be incidental to the unit price bid for the monolithic curb and sidewalk.
- E16.9 Removal of any existing paving stone shall be incidental to the Work.

MEASUREMENT AND PAYMENT

E16.9.1 Construction of Monolithic Curb and Sidewalk

- (a) Constructing the concrete sidewalk shall be paid for at the Contract Unit Price per square metre for "Monolithic Curb and Sidewalk", measured as specified herein, performed in accordance with this Specification and accepted by the Contract Administrator, which price shall be paid in full for supplying all materials and for performing all operations herein described and all other items incidental to the Work. The area to be paid for shall be the total number of square metres of sidewalk measured from the face of the curb to all sidewalk extremities, constructed in accordance with this Specification and as measured and accepted by the Contract Administrator.

E17. PAVING STONES

DESCRIPTION

- E17.1 Further to the latest version of the City of Winnipeg Standard Construction Specification CW 3335, this Specification shall cover the:

- (a) Supplying and installing of interlocking paving stones (unit pavers) used in paving pattern/fields and as indicator strips;
- (b) Supplying and installing of sand setting bed.

E17.2 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 other things necessary or and incidental to the satisfactory performance and completion of all Work as hereinafter specified.

E17.3 Referenced Specifications and "Drawings

- (a) The latest version of the City of Winnipeg Standard Construction Specifications
 - (i) CW 3330 – Installation of Interlocking Paving Stones.

MATERIALS AND EQUIPMENT

E17.3.1 General

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

E17.3.2 Interlocking Paving Stones

- (a) Concrete interlocking paving stones (unit pavers) for indicator strips, supplied by:
Barkman Concrete
www.barkmanconcrete.com
- (b) As shown on the Drawings and as follows:
 - (i) Charcoal Holland Paver 60 x 210 x 210 mm.
- (c) Concrete interlocking paving stones (unit pavers) for indicator strips shall be clay brick pavers conforming to CAN3-A231.2, Precast Concrete Pavers. Further to CAN3-A231.2.6.1.1, where concrete pavers are shipped for installation before the pavers are twenty eight (28) days old, the average compressive strength of these pavers at the time of delivery to the work site shall be not less than 40 MPA.

E17.3.3 Sand

- (a) Clean brick sand as joint filler.
- (b) Clean brick sand as minimum 13 mm depth setting bed.
- (c) Bedding sand shall be fine aggregate as specified in Specification CW 3330.

E17.4 Equipment

- (a) All equipment shall be of a type acceptable to the Contract Administrator and shall be kept in good working order.

CONSTRUCTION METHODS

E17.4.1 Installation of Indicator Strip Paving Stones in Blockouts

- (a) Paving stones shall be installed in formed concrete blockouts in accordance with CW 3330, set in locations and patterns as shown on the Drawings. Spaces between joints shall not exceed 3 mm, and shall be uniform and consistent while maintaining true patterns as indicated on the Drawings.
- (b) Contractor to verify the exact dimensions of pavers prior to construction of blockouts in concrete sidewalk.
- (c) Remove and dispose of existing paving stones in existing sidewalks. Any removal and/or disposal shall be incidental to the Work within this Specification.

- (d) Install concrete sidewalk complete with blockouts for paving stones as specified on the Drawings.
- (e) Install sand bed to minimum 13 mm depth as shown on the Drawings.
- (f) Do not compact setting bed prior to installation of pavers.
- (g) Spread only sufficient area which can be covered with pavers same day.
- (h) Remove adjacent pavers in patterns as required to ensure that bricks do not require cutting to fit existing paving pattern.
- (i) Where paving pattern is interrupted by vertical structural elements, pavers must be saw cut and fit true and hand tight.
- (j) Commence installation of pavers against edge to obtain straightest possible course for installation.
- (k) Pavers shall be cut with a saw only, to obtain true even undamaged edges. Chipped pavers are unacceptable.
- (l) Crews shall work on installed pavers, not on sand layer.
- (m) Spread and fine grade brick sand over paving surface and sweep into joints, in several directions. Sand is incidental to the price for supply and installation of pavers.
- (n) Compact pavers with vibratory plate compactor having mass of at least 113kg. Compaction is incidental to the price for supply and installation of paving stone.
- (o) Sweep remaining sand over all paving areas until joints are full and remove excess from Site.
- (p) Remove cracked, chipped, broken or otherwise damaged paving materials from Site immediately.
- (q) Upon completion, clean in accordance with manufacture's recommendations.

MEASUREMENT AND PAYMENT

E17.4.2 Interlocking Paving Stones

- (a) Interlocking paving stone work will be measured on an area basis and will be paid for at the Contract Unit Price per square metre for "Interlocking Paving Stones", measured as specified herein, 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. The area to be paid for shall be the installed area of paving stones.

Interlocking Paving Stones:

- (i) Charcoal Holland Paver 60 x 210 x 210 mm.

E18. SALT TOLERANT GRASS SEEDING

DESCRIPTION

- E18.1 Further to CW 3520 and CW3540, this specification shall cover sub-grade preparation and the supply and placement of Salt Tolerant Grass Seed.

MATERIALS

E18.2 Salt Tolerant Grass Seed

- E18.2.1 Salt Tolerant Grass Seed for regional and collector boulevards, medians and interchange areas shall be a mixture composed of:
 - (a) Seventy percent (70%) Fults or Nuttals Alkaligrass (*Puccinellia* spp.), twenty percent (20%) Audubon or Aberdeen Creeping Red Fescue and ten percent (10%) Perennial Ryegrass.

EQUIPMENT

- E18.3 Scarification equipment shall be suitable for the area being scarified, shall be capable of scarifying the sub-grade to the specified depth and shall be accepted by the Contract Administrator. For confined areas a toothed bucket may be acceptable. For larger areas tilling equipment may be required.

CONSTRUCTION METHODS

E18.4 Preparation of Existing Grade

- E18.4.1 Prior to placing topsoil, in areas to be seeded greater in width than 600 mm, prepare the existing sub-grade by scarifying to a minimum depth of 75 mm and to a maximum depth of 100 mm to the satisfaction of the Contract Administrator.
- E18.4.2 Scarification shall consist of breaking up and loosening the sub-grade. No scarification shall occur within the edge of a tree canopy (or drip line).

E18.5 Salt Tolerant Grass Seeding

- E18.5.1 Salt Tolerant Grass Seed shall be sown at a rate of 2.2 kg per 100 square metres.

MEASUREMENT AND PAYMENT

- E18.6 Supply, placement and maintenance of Salt Tolerant Grass Seed will be paid for at the Contract Unit Price per square metre for "Salt Tolerant Grass Seeding", measured as specified herein, which price shall be payment in full for supplying all materials and for completing all operations herein described and all other items incidental to the work included in this Specification. Payment for Salt Tolerant Grass Seeding shall be in accordance with the following:
- (a) Sixty five (65%) percent of quantity following supply and placement; and
 - (b) Remaining thirty five (35%) percent of quantity following termination of the Maintenance Period.

E19. REMOVAL OF STUMPS

DESCRIPTION

- E19.1.1 General
- (a) This Specification shall cover the grinding down of stumps in the center median as directed by the Contract Administrators.
- E19.2 Referenced Standard Construction Specifications
- (a) CW 3010 – Clearing and Grubbing.

MATERIALS

- E19.2.2 General
- (a) The grinding of stumps specified by the Contract Administrator shall be done with the use of a mechanical stump grinder.

CONSTRUCTION METHODS

- E19.2.3 General
- (a) Stumps will be ground a minimum depth of 300 mm from top of finished median and the material removed from the specified areas as marked and confirmed by the Contract Administrator.
 - (b) The Contractor shall take all precautions to prevent damage to traffic, structures, pole lines, adjacent properties and to trees and shrubs designated to be saved.

- (c) The Contractor shall arrange for any Elmwood to be disposed of by the City of Winnipeg.
- (d) Remove and dispose of material as per CW 3010 Clause 9.

MEASUREMENT AND PAYMENT

E19.2.4 General

- (a) Grinding of stumps will be measured on a unit basis and paid for at the Contract Unit Price per unit item for "Stump Grinding". The number to be paid for will be the total number of stumps ground in accordance with this specification and accepted by the Contract Administrator.

E20. TREE ISOLATION AREA WORK

DESCRIPTION

E20.1.1 General

- (a) Topsoil and wood mulch shall be placed around existing trees in the median or south boulevard in existing or newly constructed tree isolation areas along Ness Avenue.

MATERIALS

E20.1.2 General

- (a) Topsoil will conform to the materials as outlined in CW 3540-R3, item 5.2 "Topsoil".
- (b) Mulch shall be a clean bark or wood chip mulch with chips not less than 15 mm nor larger than 75 mm in size and not less than 75 mm thick. Mulch shall be free of leaves, branches, and other extraneous matter.

E20.2 CONSTRUCTION METHODS

E20.2.1 General

- (a) Hand excavate loose soil and scarify around tree roots as much as possible to a depth of 100 mm, being careful not to damage roots. Dispose of soil.
- (b) Hand place topsoil and wood mulch.

E20.3 MEASUREMENT AND PAYMENT

E20.3.1 General

- (a) Supply and placement of new topsoil and wood mulch will be measured on an area basis and paid for at the Contract Unit Price per square metre for "Topsoil and Wood Mulch". The area to be paid for will be total area of new Topsoil and Wood Mulch supplied and placed within tree isolation areas in accordance with this specification and accepted by the Contract Administrator.

APPENDIX 'A'

PAVEMENT CORE REPORT

APPENDIX 'A' - PAVEMENT CORE REPORT

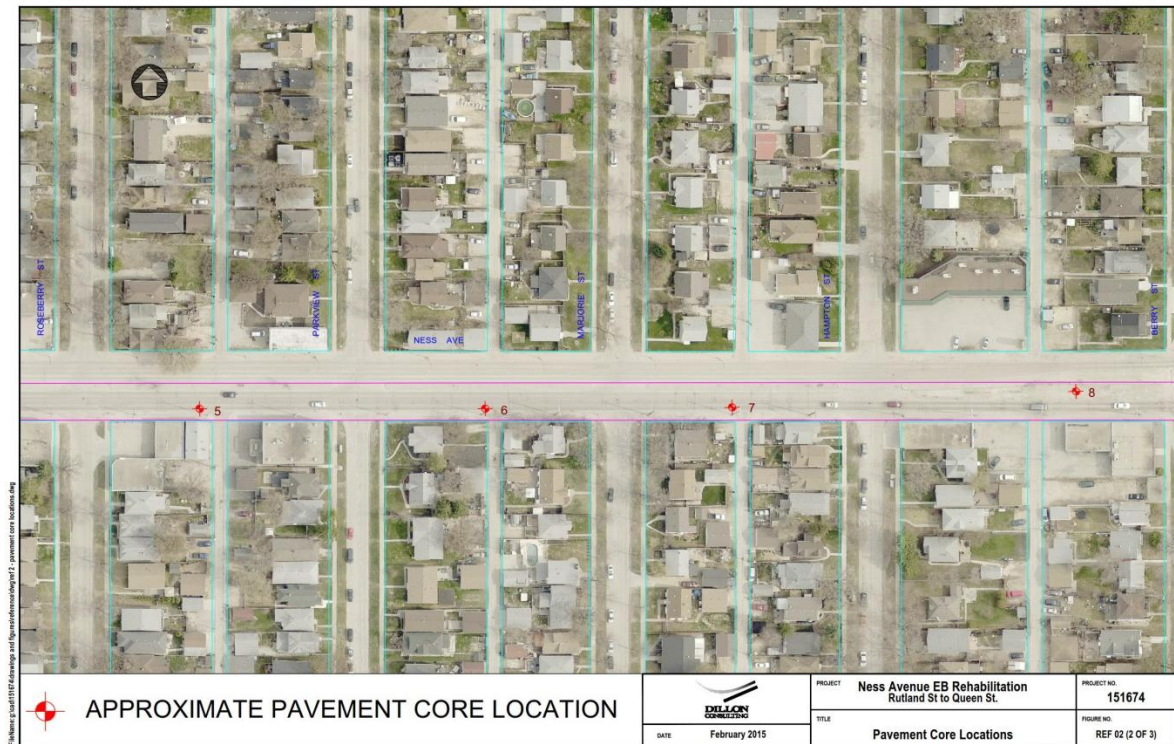
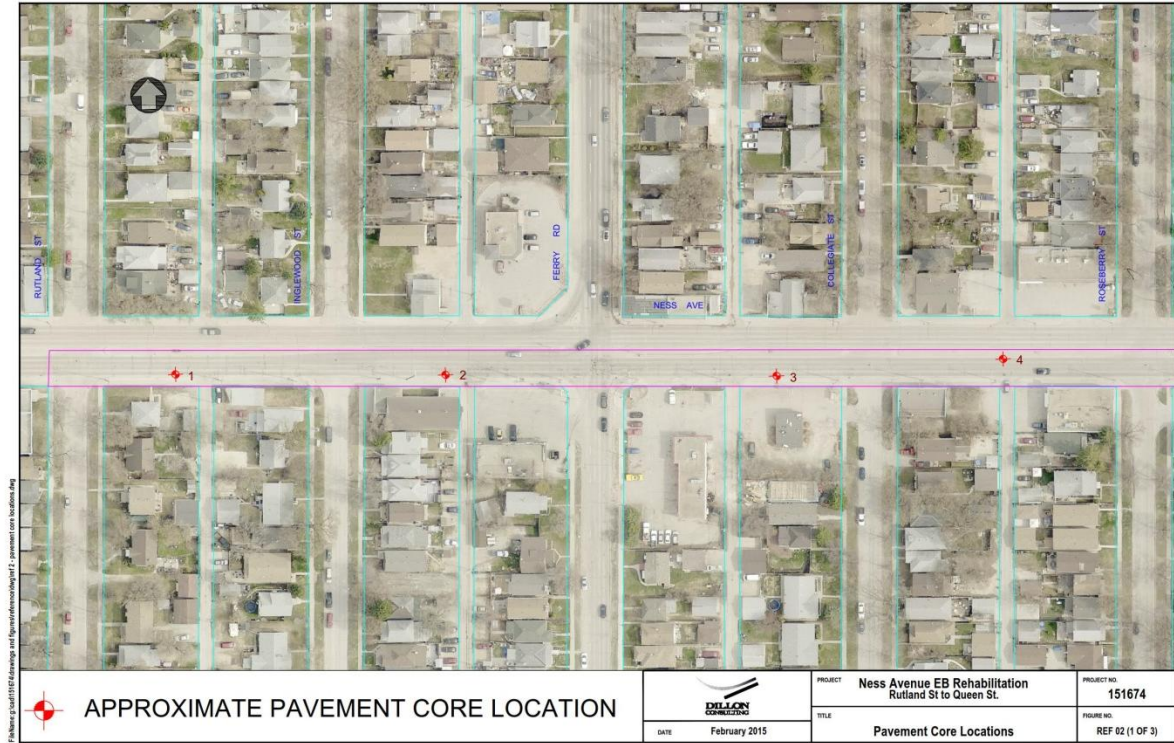
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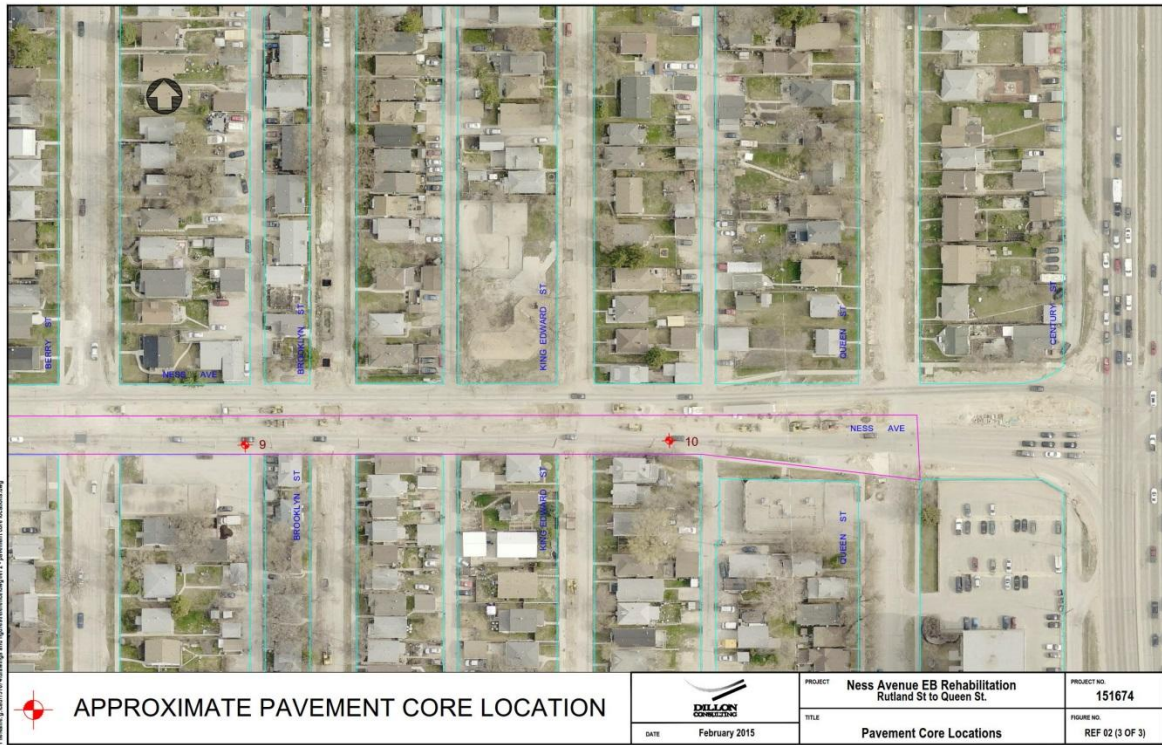
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The geotechnical report is provided to aid in the Contractor's evaluation of the existing pavement structure and/or soil conditions. The information presented is considered accurate at the locations shown on the Drawings and at the time of drilling. However, variations in pavement structure and/or soil conditions may exist between test holes and fluctuations in groundwater levels can be expected seasonally and may occur as a result of construction activities. The nature and extent of variations may not become evident until construction commences.

Pavement Core Report for Ness Avenue EB, Rutland Street to Queen Street

Test Hole Locations





 APPROXIMATE PAVEMENT CORE LOCATION		PROJECT	Ness Avenue EB Rehabilitation Rutland St to Queen St.	PROJECT NO.	151674
		TITLE	Pavement Core Locations	FIGURE NO.	REF 02 (1 OF 3)
DATE		February 2015			

Summary of Core Samples



**TABLE 1
 PAVEMENT CORE SUMMARY
 EASTBOUND NESS AVENUE, RUTLAND STREET TO QUEEN STREET**

Core No.	Core Location	Pavement Structure Thickness (mm)			Comments
		Asphalt	Concrete	Total	
1	Ness Avenue, eastbound curb lane, 1 m from curb, 25 m east from Rutland Street	45	150	195	<ul style="list-style-type: none"> Asphalt pavement not bonded to concrete surface Moderate deterioration of concrete pavement at bond line with asphalt pavement; sound concrete below 70 mm from top of pavement Granular base below pavement
2	Ness Avenue, eastbound curb lane, 1 m from curb, 30 m east from Inglewood Street	50	185	235	<ul style="list-style-type: none"> Asphalt pavement not bonded to concrete surface Sound concrete below asphalt pavement Granular base below pavement
3	Ness Avenue, eastbound curb lane, 1 m from curb, 25 m west from Collegiate Street	55	190	245	<ul style="list-style-type: none"> Asphalt pavement not bonded to concrete surface Sound concrete below asphalt pavement Granular base below pavement
4	Ness Avenue, eastbound median lane, 0.5 m from curb, 42 m east from Collegiate Street	75	205	280	<ul style="list-style-type: none"> Asphalt pavement not bonded to concrete surface Sound concrete below asphalt pavement Granular base below pavement
5	Ness Avenue, eastbound curb lane, 1 m from curb, 35 m east from Roseberry Street	55	205	260	<ul style="list-style-type: none"> Asphalt pavement not bonded to concrete surface Sound concrete below asphalt pavement Granular base below pavement
6	Ness Avenue, eastbound curb lane, 1 m from curb, 30 m east from Parkview Street	60	200	260	<ul style="list-style-type: none"> Asphalt pavement not bonded to concrete surface Sound concrete below asphalt pavement Granular base below pavement



Core No.	Core Location	Pavement Structure Thickness (mm)			Comments
		Asphalt	Concrete	Total	
7	Ness Avenue, eastbound curb lane, 1 m from curb, 30 m east from Marjorie Street	45	205	250	<ul style="list-style-type: none"> Asphalt pavement not bonded to concrete surface Sound concrete below asphalt pavement Granular base below pavement
8	Ness Avenue, eastbound median lane, 0.5 m from curb, 32 m west from Berry Street	45	190	235	<ul style="list-style-type: none"> Asphalt pavement not bonded to concrete surface Sound concrete below asphalt pavement Granular base below pavement
9	Ness Avenue, eastbound curb lane, 1 m from curb, 30 m west from Brooklyn Street	40	185	225	<ul style="list-style-type: none"> Asphalt pavement not bonded to concrete surface Sound concrete below asphalt pavement Granular base below pavement
10	Ness Avenue, eastbound curb lane, 1 m from curb, 25 m east from King Edward Street	30	195	225	<ul style="list-style-type: none"> Asphalt pavement not bonded to concrete surface Slight deterioration of concrete pavement at bond line with asphalt pavement; sound concrete below 50 mm from top of pavement Granular base below pavement

Pavement Core Photos



Core no. 1



Core no. 2



Core no. 3



Core no. 4



Core no. 5



Core no. 6



Core no. 7



Core no. 8



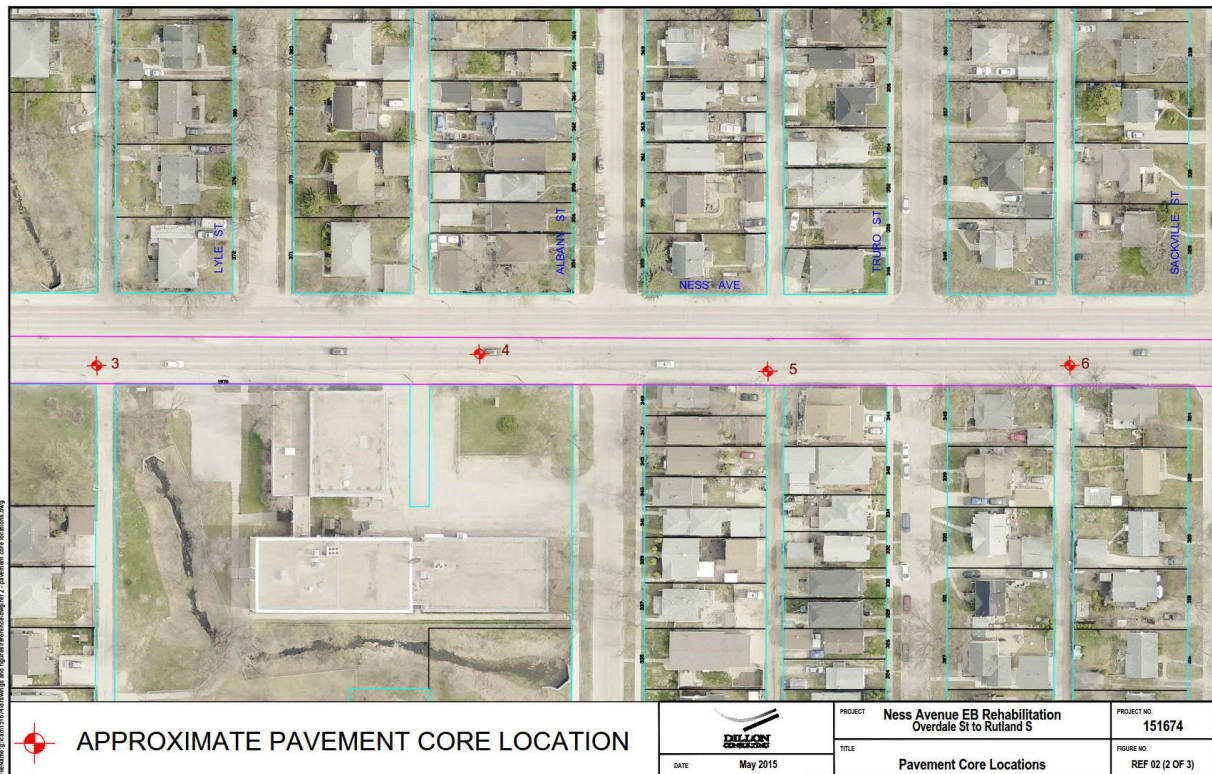
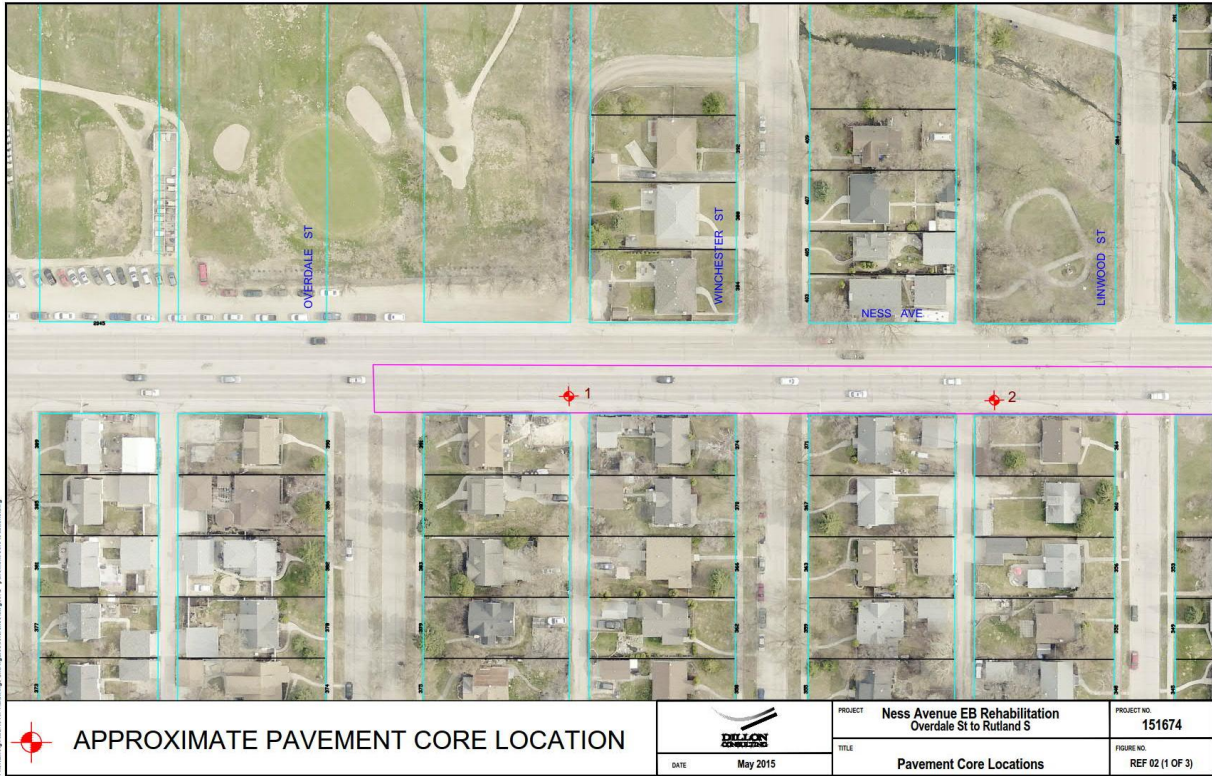
Core no. 9

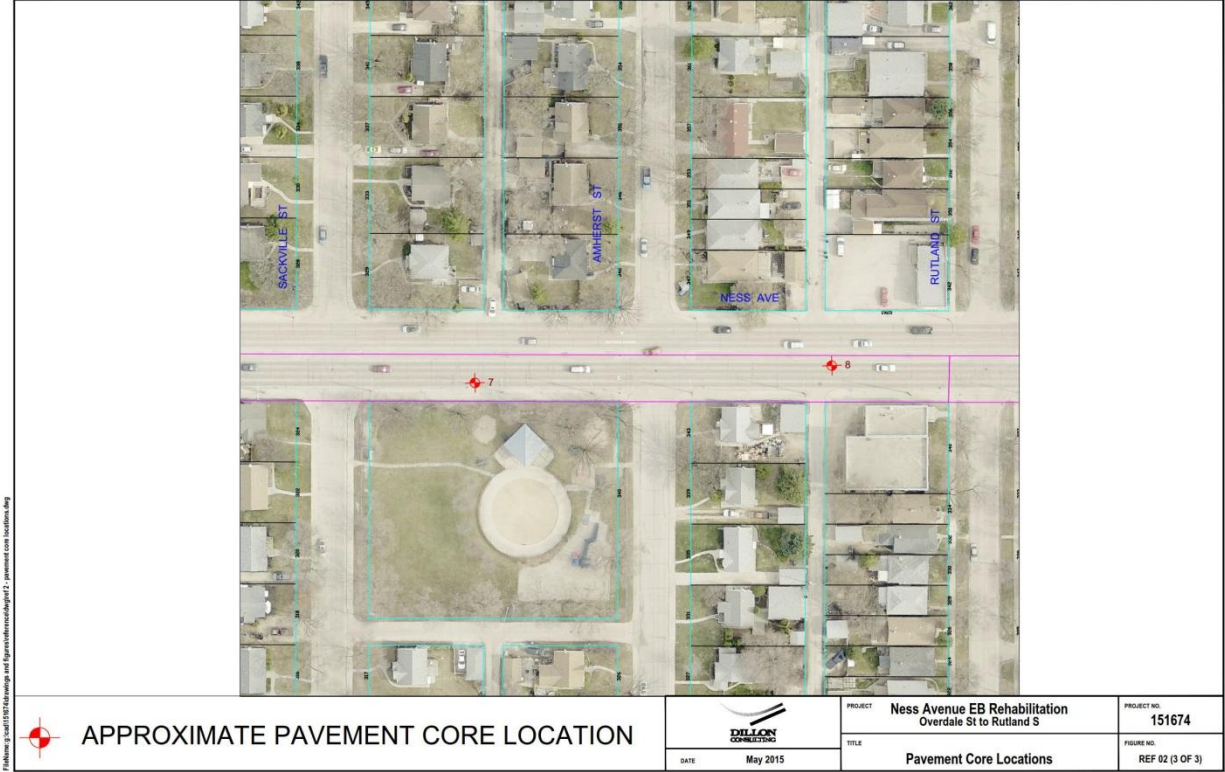


Core no. 10

Pavement Core Report for Ness Avenue EB Overdale Street to Rutland Street

Test Hole Locations






File Name: C:\winnipeg\807-2015\Drawings and Figures\Drawings\fig17 - pavement core locations.dwg



APPROXIMATE PAVEMENT CORE LOCATION

 DILLON CONSULTING	PROJECT Ness Avenue EB Rehabilitation Overdale St to Rutland S	PROJECT NO. 151674
	TITLE Pavement Core Locations	FIGURE NO. REF 02 (3 OF 3)
DATE May 2015		

Summary of Core Samples



**TABLE 1
 PAVEMENT CORE SUMMARY
 EASTBOUND NESS AVENUE, OVERDALE STREET TO RUTLAND STREET**

Core No.	Core Location	Pavement Structure Thickness (mm)			Comments
		Asphalt	Concrete	Total	
1	Ness Avenue, centreline of eastbound curb lane, 13 m west from alley between Overdale Street and Winchester Street	40	200	240	<ul style="list-style-type: none"> Asphalt pavement not bonded to concrete surface Sound concrete below asphalt pavement Limestone base below pavement
2	Ness Avenue, centreline of eastbound curb lane, 13 m west from alley between Winchester Street and Linwood Street	30	200	230	<ul style="list-style-type: none"> Asphalt pavement not bonded to concrete surface Sound concrete below asphalt pavement Limestone base below pavement
3	Ness Avenue, centreline of eastbound curb lane, 55 m west from Lyle Street	100	185	285	<ul style="list-style-type: none"> Asphalt pavement not bonded to concrete surface Sound concrete below asphalt pavement Limestone base below pavement
4	Ness Avenue, eastbound median lane, 0.5 m from curb, 31 m west from Albany Street	40	200	240	<ul style="list-style-type: none"> Asphalt pavement not bonded to concrete surface Minor deterioration of concrete pavement at bond line with asphalt pavement; sound concrete below 50 mm from top of pavement Limestone base below pavement
5	Ness Avenue, centreline of eastbound curb lane, 12 m west from alley between Albany Street and Truro Street	70	200	270	<ul style="list-style-type: none"> Asphalt pavement not bonded to concrete surface Sound concrete below asphalt pavement Limestone base below pavement
6	Ness Avenue, centreline of eastbound curb lane, 6 m east from alley between Truro Street and Sackville Street	60	205	265	<ul style="list-style-type: none"> Asphalt pavement not bonded to concrete surface Sound concrete below asphalt pavement Limestone base below pavement



Core No.	Core Location	Pavement Structure Thickness (mm)			Comments
		Asphalt	Concrete	Total	
7	Ness Avenue, centreline of eastbound curb lane, 33 m east from Sackville Street	50	200	250	<ul style="list-style-type: none"> Asphalt pavement not bonded to concrete surface Moderate deterioration of concrete pavement at bond line with asphalt pavement; sound concrete below 70 mm from top of pavement Limestone base below pavement
8	Ness Avenue, eastbound median lane, 0.5 m from curb, 10 m west from alley between Amherst Street and Rutland Street	55	235	290	<ul style="list-style-type: none"> Asphalt pavement not bonded to concrete surface Sound concrete below asphalt pavement Limestone base below pavement

Pavement Core Photos



Core no. 1



Core no. 2



Core no. 3



Core no. 4



Core no. 5



Core no. 6



Core no. 7



Core no. 8