



THE CITY OF WINNIPEG

BID OPPORTUNITY

BID OPPORTUNITY NO. 562-2005

**SEWER CLEANING AND INSPECTION – MUNROE AND MUNROE ANNEX
COMBINED SEWER DISTRICTS – CONTRACT NO. 42**

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PART B - BIDDING PROCEDURES

B1. PROJECT TITLE

- B1.1 SEWER CLEANING AND INSPECTION – MUNROE AND MUNROE ANNEX COMBINED SEWER DISTRICTS – CONTRACT NO. 42

B2. SUBMISSION DEADLINE

- B2.1 The Submission Deadline is 12:00 noon Winnipeg time, October 25, 2005.
- B2.2 Bid Submissions 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. SITE INVESTIGATION

- B3.1 Further to GC:3.1, the Bidder may view the Site without making an appointment.
- B3.2 The Bidder is advised that sewers may be located in easements through private property or City owned parklands and Right-of Ways where there may exist no paved access. It will be the Contractors/Bidders responsibility to identify these sewers and arrange for access and to restore any surface damage to private and City owned property.

B4. ENQUIRIES

- B4.1 All enquiries shall be directed to the Contract Administrator identified in D4.1.
- B4.2 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.
- B4.3 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.
- B4.4 Responses to enquiries which, in the sole judgment of the Contract Administrator, do not require a correction to or a clarification of the Bid Opportunity will be provided by the Contract Administrator only to the Bidder who made the enquiry.
- B4.5 The Bidder shall not be entitled to rely on any response or interpretation received pursuant to B4 unless that response or interpretation is provided by the Contract Administrator in writing.

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 Branch internet site at <http://www.winnipeg.ca/matmgt>.
- B5.2.2 The Bidder is responsible for ensuring that he has received all addenda and is advised to check the Materials Management Branch internet site for addenda shortly before submitting his Bid.
- 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 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, only to the Bidder who requested approval of the substitute.
- B6.6.1 The Bidder requesting and obtaining the approval of a substitute shall be entirely responsible for disseminating information regarding the approval to any person or persons he 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 shall base his 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 B15.

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 SUBMISSION

B7.1 The Bid Submission consists of the following components:

- (a) Form A: Bid;
- (b) Form B: Prices;
- (c) 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 All components of the Bid Submission 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 in ink, to constitute a responsive Bid.

B7.3 The Bid Submission shall be submitted enclosed and sealed in an envelope clearly marked with the Bid Opportunity number and the Bidder's name and address.

B7.3.1 Samples or other components of the Bid Submission 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 Submission.

B7.4 Bid Submissions submitted by facsimile transmission (fax) or internet electronic mail (e-mail) will not be accepted.

B7.5 Bid Submissions shall be submitted to:

The City of Winnipeg
Corporate Finance Department
Materials Management Branch
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 own name, his 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 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 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, should be affixed;
 - (d) if the Bidder is carrying on business under a name other than his 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 shall be printed below such signatures.
- B8.4.2 All signatures shall be original and shall be witnessed except where a corporate seal has been affixed.
- 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 Submission and the Contract, when awarded, shall be both joint and several.

B9. PRICES

- B9.1 The Bidder shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.
- B9.1.1 Notwithstanding GC.12.2.3(c), prices on Form B: Prices shall not include the Manitoba Retail Sales Tax (MRST, also known as PST), which shall be extra where applicable.
- 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.

B10. QUALIFICATION

- B10.1 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;
 - (b) be responsible and not be suspended, debarred or in default of any obligation to the City;
 - (c) be financially capable of carrying out the terms of the Contract;
 - (d) have all the necessary experience, capital, organization, and equipment to perform the Work in strict accordance with the terms and provisions of the Contract;
 - (e) have successfully carried out work, similar in nature, scope and value to the Work;

- (f) employ only Subcontractors who:
 - (i) are responsible and not suspended, debarred or in default of any obligation 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 Branch internet site at <http://www.winnipeg.ca/matmgt>); and
 - (ii) have successfully carried out work similar in nature, scope and value to the portion of the Work proposed to be subcontracted to them, and are fully capable of performing the Work required to be done in accordance with the terms of the Contract;
- (g) have a written workplace safety and health program in accordance with The Workplace Safety and Health Act (Manitoba);

B10.2 Further to B10.1(g), the Bidder shall, within three (3) Business Days of a request by the Contract Administrator, provide proof satisfactory to the Contract Administrator that the Bidder has a workplace safety and health program meeting the requirements of The Workplace Safety and Health Act (Manitoba), by providing:

- (a) a valid COR certification number under the Certificate of Recognition (COR) Program - Option 1 administered by the Manitoba Heavy Construction Association's Safety, Health and Environment Program; or
- (b) a valid COR certification number under the Certificate of Recognition (COR) Program administered by the Manitoba Construction Safety Association; 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 Branch internet site at <http://www.winnipeg.ca/matmgt>.)

B10.3 The Bidder shall be prepared to 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.

B10.4 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.

B11. BID SECURITY

B11.1 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.

B11.1.1 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.

B11.2 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.

B11.2.1 Where the bid security provided by the successful Bidder is in the form of a certified cheque or draft pursuant to B11.1(c), it will be deposited and retained by the City as the performance security and no further submission is required.

B11.2.2 The City will not pay any interest on certified cheques or drafts furnished as bid security or subsequently retained as performance security.

B11.3 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.

B12. OPENING OF BIDS AND RELEASE OF INFORMATION

B12.1 Bid Submissions will be opened publicly, after the Submission Deadline has elapsed, in the office of the Corporate Finance Department, Materials Management Branch, or in such other office as may be designated by the Manager of Materials.

B12.1.1 Bidders or their representatives may attend.

B12.1.2 Bid Submissions determined by the Manager of Materials, or his designate, to not include the bid security specified in B11 will not be read out.

B12.2 After the public opening, the names of the Bidders and their Total Bid Prices as read out (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 Branch internet site at <http://www.winnipeg.ca/matmgt>.

B12.3 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 Branch internet site at <http://www.winnipeg.ca/matmgt>.

B12.4 The Bidder is advised that any information contained in any Bid Submission 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.

B13. IRREVOCABLE BID

B13.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 11 of Form A: Bid.

B13.2 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.

B14. WITHDRAWAL OF BIDS

B14.1 A Bidder may withdraw his Bid without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.

- B14.1.1 Notwithstanding GC:23.3, 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.
- B14.1.2 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.
- B14.1.3 If a Bidder gives notice of withdrawal prior to the Submission Deadline, the Manager of Materials shall:
- (a) retain the Bid Submission until after the Submission Deadline has elapsed;
 - (b) open the Bid Submission 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 B14.1.3(b), declare the Bid withdrawn.
- B14.2 A Bidder who withdraws his Bid after the Submission Deadline but before his Bid has been released or has lapsed as provided for in B13.2 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.

B15. EVALUATION OF BIDS

- B15.1 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 (pass/fail);
 - (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B10 (pass/fail);
 - (c) Total Bid Price;
 - (d) economic analysis of any approved alternative pursuant to B6.
- B15.2 Further to B15.1(a), the Award Authority may reject a Bid as being non-responsive if the Bid Submission 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 if the interests of the City so require.
- B15.3 Further to B15.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in his Bid Submission or in other information required to be submitted, that he is responsible and qualified.
- B15.4 Further to B15.1(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.
- B15.4.1 If there is any discrepancy between the Total Bid Price written in figures, the Total Bid Price written in words and the sum of the quantities multiplied by the unit prices for each item, the sum of the quantities multiplied by the unit prices for each item shall take precedence.

B16. AWARD OF CONTRACT

- B16.1 The City will give notice of the award of the Contract by way of a letter of intent, or will give notice that no award will be made.

- B16.2 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.
- B16.2.1 Without limiting the generality of B16.2, 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.
- B16.3 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.

PART C - GENERAL CONDITIONS

C1. GENERAL CONDITIONS

C1.1 The *General Conditions for Construction Contracts* (Revision 2000 11 09) are applicable to the Work of the Contract.

C1.1.1 The *General Conditions for Construction Contracts* are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Branch internet site at <http://www.winnipeg.ca/matmgt>.

PART D - SUPPLEMENTAL CONDITIONS

GENERAL

D1. GENERAL CONDITIONS

- D1.1 In addition to the *General Conditions for Construction Contracts*, these Supplemental Conditions are applicable to the Work of the Contract.
- D1.2 The General Conditions are amended by striking out "The City of Winnipeg Act" wherever it appears in the General Conditions and substituting "The City of Winnipeg Charter".
- D1.3 The General Conditions are amended by striking out "Tender Package" wherever it appears in the General Conditions and substituting "Bid Opportunity".
- D1.4 The General Conditions are amended by striking out "Tender Submission" wherever it appears in the General Conditions and substituting "Bid Submission".
- D1.5 The General Conditions are amended by deleting GC:6.16 and GC:6.17. The City of Winnipeg is now within the jurisdiction of the Manitoba Ombudsman pursuant to The Ombudsman Act.

D2. SCOPE OF WORK

- D2.1 The Work to be done under the Contract shall consist of the cleaning and inspection of combined sewers and manholes in the Monroe and Monroe Annex Combined Sewer Districts in the City of Winnipeg.

D3. DEFINITIONS

- D3.1 When used in this Bid Opportunity:
- (a) "NAAPI" means North American Association of Pipeline Inspectors ;
 - (b) "WRc" means "Water Research Centre". The NAAPI accepted standard for sewer condition coding and assessment was originally drafted by WRc. ;

D4. CONTRACT ADMINISTRATOR

- D4.1 The Contract Administrator is UMA Engineering Ltd., represented by:
Ross Homeniuk, MBA, P.Eng.
Asset Management Specialist, Community Infrastructure
1479 Buffalo Place, Winnipeg, MB R3T 1L7
Telephone No. (204) 928-7401
Facsimile No. (204) 475-3646
- D4.2 At the pre-construction meeting, Mr. Homeniuk will identify additional personnel representing the Contract Administrator and their respective roles and responsibilities for the Work.

D5. SUPERVISOR

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

D6. NOTICES

- D6.1 Except as provided for in GC:23.2.2, 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, D6.4 or elsewhere in the Contract, shall be sent to the attention of the Contract Administrator at the address or facsimile number identified in D4.1.
- D6.3 All notices of appeal to the Chief Administrative Officer shall be sent to the attention of the Chief Financial Officer at the following address or facsimile number:
- The City of Winnipeg
Chief Administrative Officer Secretariat
Administration Building, 3rd Floor
510 Main Street
Winnipeg MB R3B 1B9
Facsimile No.: (204) 949-1174
- D6.4 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 address or facsimile number:
- The City of Winnipeg
Corporate Services Department
Legal Services Division
185 King Street, 3rd Floor
Winnipeg MB R3B 1J1
Facsimile No.: (204) 947-9155

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 at cost.

SUBMISSIONS

D8. SAFE WORK PLAN

- D8.1 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 GC:4.1 for the return of the executed Contract.
- D8.2 The Safe Work Plan should 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 Branch internet site at <http://www.winnipeg.ca/matmgt>.

D9. INSURANCE

- D9.1 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) all inclusive, with The City of Winnipeg and UMA Engineering Ltd. being added as an additional insured, with a cross-liability clause, such liability policy to also contain a contractual liability, an unlicensed motor vehicle liability and a products and completed operations endorsement to remain in place at all times during the performance of the Work and throughout the warranty period;
 - (b) automobile liability insurance for owned and non-owned automobiles used for or in connection with the Work in the amount of at least two million dollars (\$2,000,000.00) at all times during the performance of the Work and until the date of Total Performance;
- D9.2 Deductibles shall be borne by the Contractor.
- D9.3 The Contractor shall provide the City Solicitor with a certificate of insurance of each policy, in a form satisfactory to the City Solicitor, 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 GC:4.1 for the return of the executed Contract.
- D9.4 The Contractor shall not cancel, materially alter, or cause each policy to lapse without providing at least fifteen (15) Calendar Days prior written notice to the Contract Administrator.

D10. PERFORMANCE SECURITY

- D10.1 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.
- D10.1.1 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.
- D10.2 If the bid security provided in his Bid Submission was not a certified cheque or draft pursuant to B11.1(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 but in no event later than the date specified in GC:4.1 for the return of the executed Contract.

D11. SECURITY CLEARANCE

- D11.1 Each individual proposed to perform Work:
- (i) on private property;
shall be required to obtain a Criminal Record Search Certificate from the police service having jurisdiction at his place of residence.

- D11.2 Prior to the commencement of any Work, and during the term of the Contract if additional or replacement individuals are proposed to perform Work, the Contractor shall supply the Contract Administrator with a Criminal Record Search Certificate obtained not earlier than one (1) year prior to the Submission Deadline, or a certified true copy thereof, for each individual proposed to perform Work within City facilities or on private property.
- D11.3 Any individual for whom a Criminal Record Search Certificate is not provided, or for whom a Criminal Record Search Certificate indicates any convictions or pending charges related to property offences or crimes against another person, will not be permitted to perform any Work within City facilities or on private property.
- D11.4 Any Criminal Record Search Certificate obtained thereby will be deemed valid for the duration of the Contract subject to a repeated records search as hereinafter specified.
- D11.5 Notwithstanding the foregoing, at any time during the term of the Contract, the City may, at its sole discretion and acting reasonably, require an updated criminal records search. Any individual who fails to provide a satisfactory Criminal Record Search Certificate as a result of a repeated criminal records search will not be permitted to continue to perform Work under the Contract within City facilities or on private property.

SCHEDULE OF WORK

D12. COMMENCEMENT

- D12.1 The Contractor shall not commence any Work until he is in receipt of a letter of intent from the Award Authority authorizing the commencement of the Work.
- D12.2 The Contractor shall not commence any Work on the Site until:
- (a) the Contract Administrator has confirmed receipt and approval of:
 - (i) evidence that the Contractor is 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;
 - (ii) evidence of the workers compensation coverage specified in GC:6.14;
 - (iii) the Safe Work Plan specified in D8;
 - (iv) evidence of the insurance specified in D9;
 - (v) the performance security specified in D10;
 - (vi) the security clearances specified in D11;
 - (vii) the sample inspection video and data file for each CCTV camera as specified in CW 2145;
 - (viii) operator and coder Certification as specified in CW 2145.
 - (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.
- D12.3 Commencement of the Work shall be at the discretion of the Contractor provided the commencement date will allow for the achievement of Substantial Performance in accordance with D15.

D13. HOURS OF WORK

- D13.1 All Work shall be carried out between the hours of 07:00 and 22:00 Monday to Friday and between 09:00 and 21:00 Saturday.

D13.2 No Work shall be performed outside the hours stated in D13.1 or on Sunday or statutory or civic holidays without written permission from the Contract Administrator. Approval will only be granted if it is in the best interests of the City to do so.

D14. WORKING DAYS

D14.1 Further to GC:1.1(gg), should the Contractor choose to work on a Saturday or be permitted to work on Sunday, or a statutory or civic holiday as specified in D13, these days shall be classified as Working Days.

D14.2 Further to GC:1.1(gg), the Contract Administrator's determination of whether or not atmospheric and Site conditions are such that a Working Day is deemed to have elapsed may be based at one time on one type of work while at another time a Working Day may be based on another type of work. When more than one type of major work is involved, the quantity of equipment that must be able to work in order to meet the requirements of a Working Day may vary considerably from that specified in the General Conditions.

D14.3 In the event that incidental work is behind schedule which, in the opinion of the Contract Administrator, should have been or could have been carried out by the Contractor in conjunction with or immediately following work of a major type, the City hereby reserves the right to charge Working Days on the incidental work until such time as it is up to schedule.

D14.4 When the major type of work involves restoration of the site to the condition it was prior to rainfall, Working Days shall not be charged.

D14.5 The Contract Administrator will furnish the Contractor with a daily record for each major type of work showing various information concerning the equipment, the time it worked, could have worked and Working Days charged. This report is to be signed each day by an authorized representative of the Contractor.

D15. SUBSTANTIAL PERFORMANCE

D15.1 The Contractor shall achieve Substantial Performance within eighty (80) consecutive Working Days of the commencement of the Work as specified in D12 or by October 2, 2006, whichever occurs first.

D15.2 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 reinspected.

D15.3 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.

D16. TOTAL PERFORMANCE

D16.1 The Contractor shall achieve Total Performance within ten (10) consecutive Working Days of the date of Substantial Performance as specified in D15.

D16.2 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 reinspected.

D16.3 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.

D17. LIQUIDATED DAMAGES

D17.1 If the Contractor fails to achieve Substantial Performance in accordance with the Contract by the day fixed herein for Substantial Performance, the Contractor shall pay the City one thousand dollars (\$1000) per Working Day for each and every Working Day following the day fixed herein for Substantial Performance during which such failure continues.

D17.2 If the Contractor fails to achieve Total Performance in accordance with the Contract by the day fixed herein for Total Performance, the Contractor shall pay the City five hundred dollars (\$500) per Working Day for each and every Working Day following the day fixed herein for Total Performance during which such failure continues.

D17.3 The amount specified for liquidated damages in D17.1 and D17.2 is based on a genuine pre-estimate of the City's losses in the event that the Contractor does not achieve Substantial or Total Performance by the days fixed herein for same.

D17.4 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

CONTROL OF WORK

D18. JOB MEETINGS

D18.1 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.

D18.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he deems it necessary.

D19. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)

D19.1 Further to GC:6.26, the Contractor shall be the Prime Contractor and shall serve as, and have the duties of the Prime Contractor in accordance with The Workplace Safety and Health Act (Manitoba).

FORM H1: PERFORMANCE BOND
(See D10)

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 dated the

_____ day of _____, 20____, for:

BID OPPORTUNITY NO. 562-2005

SEWER CLEANING AND INSPECTION – MUNROE AND MUNROE ANNEX COMBINED SEWER DISTRICTS – CONTRACT NO. 42

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)

(Name of Principal)

Per: _____ (Seal)

Per: _____

(Name of Surety)

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

**FORM H2: IRREVOCABLE STANDBY LETTER OF CREDIT
(PERFORMANCE SECURITY)**
(See D10)

(Date)

The City of Winnipeg
Corporate Services Department
Legal Services Division
185 King Street, 3rd Floor
Winnipeg MB R3B 1J1

RE: PERFORMANCE SECURITY - BID OPPORTUNITY NO. 562-2005

SEWER CLEANING AND INSPECTION – MUNROE AND MUNROE ANNEX COMBINED SEWER
DISTRICTS – CONTRACT NO. 42

Pursuant to the request of and for the account of our customer,

(Name of Contractor)

(Address of Contractor)

WE HEREBY ESTABLISH in your favour our irrevocable Standby Letter of Credit for a sum not exceeding
in the aggregate

_____ Canadian dollars.

This Standby Letter of Credit may be drawn on by you at any time and from time to time upon written demand for payment made upon us by you. It is understood that we are obligated under this Standby Letter of Credit for the payment of monies only and we hereby agree that we shall honour your demand for payment without inquiring whether you have a right as between yourself and our customer to make such demand and without recognizing any claim of our customer or objection by the customer to payment by us.

The amount of this Standby Letter of Credit may be reduced from time to time only by amounts drawn upon it by you or by formal notice in writing given to us by you if you desire such reduction or are willing that it be made.

Partial drawings are permitted.

We engage with you that all demands for payment made within the terms and currency of this Standby Letter of Credit will be duly honoured if presented to us at:

(Address)

and we confirm and hereby undertake to ensure that all demands for payment will be duly honoured by us.

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 (1993 Revision), International Chamber of Commerce Publication Number 500.

(Name of bank or financial institution)

Per: _____
(Authorized Signing Officer)

Per: _____
(Authorized Signing Officer)

PART E - SPECIFICATIONS

GENERAL

E1. APPLICABLE SPECIFICATIONS, STANDARD DETAILS AND DRAWINGS

- E1.1 *The City of Winnipeg Standard Construction Specifications* in its entirety, whether or not specifically listed on Form B: Prices, shall apply to the Work.
- E1.1.1 *The City of Winnipeg Standard Construction Specifications* is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Branch internet site at <http://www.winnipeg.ca/matmgt>.
- E1.1.2 The version in effect three (3) Business Days before the Submission Deadline shall apply.
- E1.1.3 Further to GC:2.4(d), Specifications included in the Bid Opportunity shall govern over *The City of Winnipeg Standard Construction Specifications*.
- E1.2 The following Drawings are applicable to the Work:

<u>Drawing No.</u>	<u>Drawing Name/Title</u>
1	Munroe and Munroe Annex Combined and Wastewater Sewer Districts – Sewer Network Identifiers and Sizes
2	Munroe and Munroe Annex Combined and Wastewater Sewer Districts – Catchbasin Identifiers
D-8211	Water Supply Hose Traffic Ramp

E2. CONFINED SPACE ENTRY

- E2.1 The Contractor's attention is drawn to the Province of Manitoba Workplace Safety and Health Act ("the Act"), and the Regulations and Guidelines there-under pertaining to Confined Entry Work and in particular the requirements for conducting hazard/risk assessments and providing personal protective equipment (PPE).
- E2.2 Use Supplied Air Breathing Apparatus conforming to the requirements of the Act, Regulations and Guidelines where confined entry is required in sewers and manholes to allow for completion or inspection the Work.

E3. WATER SUPPLY

- E3.1 Further to specifications CW 1120, section 3.1, CW 2140 and CW 2145, water supply for the Work may be taken from City of Winnipeg hydrants in accordance with the following:
- Determine the number of hydrants to be used at any one time and arrange for an equal number of "various locations" hydrant use permits to be obtained for the Contract. The number of hydrants used for water supply shall not exceed the number of permits taken out. The Bid Opportunity number shall be noted on each permit.
 - Submit a list of proposed hydrant locations to the City of Winnipeg Water Services Division (WSD) for approval. If a proposed hydrant location is not approved, the Contractor shall submit an alternate hydrant location for approval.
 - Only hydrants approved by WSD shall be used for water supply.
 - The Contractor is permitted to turn approved hydrants on and off provided the Contractor has received training by Water Services Division and the turn-ons and turn-offs are done in the presence of the Contract Administrator.

- (e) WSD may at their discretion, instruct the Contractor to make the following arrangements for hydrant turn-ons and turn-offs:
 - (i) Contact WSD for hydrant turn-ons and turn-offs required between 0800 hours and 1500 hours Monday to Friday. Notice for turn-ons and turn-offs shall be provided on the previous business day.
 - (ii) Contact Emergency Services Branch (986-2626) with a minimum of 2 hours notice for hydrant turn-ons and turn-offs required outside of the above hours.
 - (iii) The Contractor shall wait at the hydrant from the requested turn-on or turn-off time until the City arrives to turn on or turn off the hydrant.
- (f) Hydrants approved for use shall be considered to be "in the Contractor's control" from the time the City has turned the hydrant on until the City has turned the hydrant off.
- (g) Between November 1 and April 30 of any year the Contractor shall take all necessary precautions to prevent freezing of hydrants and related appurtenances for hydrants in their control and shall be responsible to pump out hydrants turned off by Emergency Services.
- (h) If a hydrant or appurtenance is damaged due to freezing or improper turn on or turn off procedures while in the Contractor's control, WSD will assess the damage and determine if WSD will repair the damage or if the Contractor will be responsible to repair the damage. Costs for repairs completed by WSD will be deducted from payments owing the Contractor. Repairs completed by the Contractor will be at the Contractor's expense.
- (i) Erect and maintain signage (bump signs) warning oncoming traffic of hose crossings to the satisfaction of the Contract Administrator and the Manual of Temporary Traffic Control. Construct ramps as shown on attached drawing D-8211.

E3.2 Further to Section 3.7 of CW 1120, charges incurred for the permit and water meters shall be paid for by the Contractor when taken out. The Contractor shall forward the invoice to the Contract Administrator for reimbursement. The billing for water usage sent to the Contractor shall be forwarded to the Contract Administrator for payment. The Bid Opportunity number shall be noted on each permit.

E4. DEBRIS DISPOSAL

E4.1 This specification amends and supplements specification CW 2140.

E4.2 If the Contractor intends to use a sewer debris transfer/dewatering facility, this facility must meet all Provincial and local government environmental regulations and requirements. If this facility is located within the City of Winnipeg it must also be approved by the Industrial Waste Control Branch of the Water and Waste Department.

E4.2.1 Provide the Contract Administrator with copies of any required licences, permits or relevant documentation prior to the use of any debris transfer facility.

E4.3 Revise clause 3.9.2 to read "Decant excess water from all debris removed from sewers and catch basins. Debris is to have a maximum slump of 150 millimetres, when tested in accordance with CSA A23.2-5C, prior to disposal."

E4.4 Further to clause 3.9.4, debris removed from City sewers may be taken to the BFI disposal facility in Rosser as an alternate disposal site to the Brady Road Landfill. The City does not guarantee that BFI will accept sewer debris and will not compensate the Contractor for extra travel time for disposal at Brady Road Landfill.

E4.4.1 All liquid, either decanted from debris on site or from any dewatering facility, must be returned to the sewer of origin as soon as possible.

E4.4.2 All vehicles used to transport liquid sewage within City limits must be licensed by the Industrial Waste Control Branch of the Water and Waste Department.

- E4.5 Further to clause 3.9.5, Brady Road Landfill will now be charging the Contractor for the disposal of all debris.
- E4.6 Further to clause 3.10.1, all debris removed from Catch Basins must be handled as specified in section 3.9 and shall be disposed of at a landfill facility as described herein for sewer debris.
- E4.7 Debris disposal shall be measured on a weight basis and paid for at the Contract Unit Price per tonne for "Debris Disposal". The Weight to be paid for shall be the total number of tonnes of sewer debris properly disposed of, accepted and measured by the Contract Administrator, which price shall be payment in full for performing all operations herein described and all other items incidental to the disposal of sewer or catch basin debris.
- E4.7.1 Provide weigh tickets obtained from disposal facility to the Contract Administrator. Payment will only be made upon receipt of weigh tickets.
- E4.7.2 The Contractor is to ensure that the tare weight given to the scale at the landfill includes any onboard flushing water. The Contract Administrator may require that combination units used to dispose of debris be weighed immediately after the debris has been dumped to confirm vehicle tare weights.
- E4.7.3 The Contractor is to ensure that only debris originating from sewers cleaned under this Contract is measured for payment.

E5. SEWER AND MANHOLE INSPECTION

- E5.1 This specification amends and supplements specification CW 2145.
- E5.2 Further to section 3.8, the requirements stated for capture of digital inspections are a minimum only. The Contractor may need to record at a higher resolution in order to achieve the required video quality.
- E5.3 Further to section 3.17, inspections must be made with adequate lighting free of shadows or glare with two full pipe segments illuminated and visible at all times. Picture quality must be such that the condition of the sewer can be accurately assessed. Dark, grainy, out-of-focus inspections will not be accepted.
- E5.4 Further to section 3.17, a flusher must be used during all inspections to remove any debris in the pipe that may have accumulated since cleaning and to reduce the flow in the pipe to a minimum.
- E5.5 The contract drawings are based on information contained in the City's GIS database. If the Contractor has trouble interpreting the drawings, or if they believe them to be wrong, the on-site inspector should be approached for assistance/clarification.
- E5.5.1 The Contractor shall note the exact details and measurements of any discrepancies on a "GIS Error Identification Form" which will be provided in MS Word or another format suitable to the Contractor along with a "PDF" map of the district for use in the Inspection Vehicle.
- E5.5.2 GIS Error Identification Forms should be submitted to the on-site inspector the same day that the error is discovered.

E6. TRAFFIC CONTROL AND MAINTENANCE OF ACCESS

- E6.1 Further to section 3.7 of CW 1130 of the General Requirements the Contractor shall be responsible to redirect and maintain traffic with appropriate signing in accordance with The City of Winnipeg, "Manual of Temporary Traffic Control in Work Areas on City Streets" at all times.

- E6.2 Work shall not be carried out on Regional Streets between 07:00 to 09:00 hours and 15:30 to 17:30 hours Monday to Friday and other hours as directed by the Contract Administrator.
- E6.3 Should the City of Winnipeg require that work on Regional Streets be carried out at night, on Sundays or on public holidays, the Contractor shall comply without additional compensation being considered to meet these requirements.
- E6.4 Further to section 3.8 of CW 1130 of the General Requirements parking restriction signing on Regional Streets will be done by The City of Winnipeg, Traffic Services Branch.
- E6.5 The following is a list of the Regional Streets in the Munroe and Munroe Annex Sewer Districts:
- (a) Concordia Ave.
 - (b) Gateway Rd.
 - (c) Henderson Hwy.
 - (d) Munroe Ave.
 - (e) Watt St.
- E6.6 The Contractor will be responsible for parking restriction signing required to perform the Work on non-regional and local residential streets. "No Parking" signs will be provided for the Contractor's use.
- E6.7 Erect signs no sooner than 24 hours before the Work commences at a particular location.
- E6.8 Record the license plate numbers of vehicles already parked within the limits where the parking restriction signs are placed and fax the information to Winnipeg Police Services, Traffic Branch at 986-6998.
- E6.9 Promptly remove parking restriction signs once the Work at that location is completed. Signs shall not be left in place over a weekend if no Work will be done at that location.
- E6.10 Return signs immediately upon completion of the Work.
- E6.11 Further to section 3.6 of CW 1130 of the General Requirements, maintain safe pedestrian crossing at intersections at all times. Only one pedestrian crossing at an intersection is to be blocked at any one time. If more than one pedestrian crossing is blocked at an intersection at the same time the Contractor shall provide flag persons to safely escort pedestrians across the intersection.
- E6.12 Do not park company or private vehicles inside the signed work zone in a manner that will block sightlines for vehicles and pedestrians approaching and crossing intersections.

E7. NOTICES TO RESIDENTS

- E7.1 This specification amends and supplements specifications CW 2140 and CW 2145.
- E7.2 The Contractor shall deliver notices, provided by the Contract Administrator, to residents connected to sewers where high pressure flushing is to be used for either cleaning or inspection.
- E7.2.1 Notices will explain the cleaning and inspection program and how it may affect residences as well as some precautions to take to prevent backup.
- E7.2.2 Notices will contain the phone numbers of the Contractor's 24-hour cleaning contact as specified in E8 and the Water and Waste Department's Call Centre.

E7.3 Deliver notices 48 hours prior to the use of flushing equipment or as directed by the Contract Administrator.

E7.4 All costs associated with delivering notices shall be included in the price bid for "Sewer Cleaning".

E8. SEWER BACKUP ON RESIDENTIAL SERVICES

E8.1 This specification amends and supplements specifications CW 2140 and CW 2145.

E8.2 Further to section 3.5 of CW 2140, sewer backup or blow-back on residential services resulting from cleaning or inspection activities is not acceptable and shall be avoided at all costs.

E8.3 The Contractor is responsible for any damage caused to private property as a result of cleaning or inspection operations and the cost of repairs shall be at the Contractors own expense.

E8.4 It is expected that where a possibility exists for sewer service backup or blow-back the Contractor shall take appropriate measures such as turning down the pressure on cleaning equipment and taking additional time to clean such sewers.

E8.5 Upon being notified by a resident or the City of a sewer service backup the Contractor must take immediate action to completely clean and disinfect all flooded or contaminated areas and replace or make any required repairs to contaminated building materials such as drywall, insulation, carpets or sub-floors.

E8.5.1 Cleanup of affected residences shall be done by cleaning professionals. Under no circumstances are cleaning equipment operators to enter residences unless they are neat and presentable and the Contract Administrator has received a criminal record search for that individual.

E8.5.2 The Contractor shall provide the Contract Administrator with a 24hr contact number of a cleaning service or individual for residents to call to arrange for immediate clean-up of sewer service back-ups. This contact number will be included in the residential notices described in E7.

E8.6 If required repairs are not made in a timely manner or to the satisfaction of the Contract Administrator the City may hire a qualified water damage restoration contractor to investigate, cleanup and make any required repairs to residences affected by sewer backups caused by the Contractor. The cost of all repairs and fees shall be deducted from future progress payments owing to the Contractor.

APPENDIX A

Work Program, Munroe and Munroe Annex Combined and Wastewater Sewers Districts

SORTED BY: DISTRICT, FLOW TYPE, ASSET

ASSET	MAP KEY	US NODE	DS NODE	STREET	SIZE	MATERIAL	LENGTH	MAX DEPTH	TRAFFIC COUNT
MUNROE									
CS									
MA40003399	P9	MH40003642	MH40006618	SIMPSON AV	300	CO	106.38	3.58	0
MA40003407	L9	MH40003107	MH40007264	GOVERNMENT AV	300	CO	91.44	3.61	0
MA40003409	N9	MH40007314	MH40004001	FLEMING AV	300	CO	107.9	3.67	0
MA40003413	E9	MH40007417	MH40004324	ROCH ST	600	CO	81.1	5.63	0
MA40003414	E9	MH40003112	MH40004324	BOWMAN AV	300	PVC	12.697	5.63	0
MA40003415	F9	MH40007418	MH40004324	BOWMAN AV	450	PVC	12.523	5.63	0
MA40003416	F9	MH40007707	MH40004333	JAMISON AV	300	CO	94.88	3.75	0
MA40003421	G9	MH40007712	MH40003114	WATT ST	550X825	CO	81.021	6.13	10000
MA40003422	H9	MH40007741	MH40004370	OTTAWA AV	300	CO	105.22	3.88	0
MA40003423	G9	MH40003115	TE40001307	WASHINGTON AV	450	CO	11.087	6.16	10000
MA40003424	G9	MH40003114	TE40001307	WATT ST	750X1125	CO	6.1	6.13	10000
MA40003429	E9	MH40004778	MH40008141	LARSEN AV	300	CO	101.68	3.85	0
MA40003978	O9	MH40003618	MH40003642	SIMPSON AV	300	CO	88.54	3.01	0
MA40004280	K8	MH40004054	MH40003952	NEIL AV	300	CO	105.74	5.10	0
MA40004283	K9	MH40003975	MH40003893	DOBBIE AV	300	CO	117.3	3.62	0
MA40004284	J8	MH40003893	MH40003894	DOBBIE AV	450	CO	118.3	4.19	0
MA40004299	J6	MH40003940	MH40004575	MELBOURNE AV	300	CO	132.05	3.03	0
MA40004309	K8	MH40003952	MH40003915	NEIL AV	900	CO	91.409	5.42	0
MA40004310	J7	MH40003915	MH40004524	NEIL AV	900	CO	95.4	5.50	0
MA40004336	K7	MH40004055	MH40003938	GOLSPIE ST	900	CO	91.14	0.00	0
MA40004352	K7	MH40003938	MH40003949	GOLSPIE ST	900	CO	89.9	0.00	0
MA40004353	K7	MH40003949	MH40003952	GOLSPIE ST	900	CO	92.8	5.86	0
MA40004379	L8	MH40004035	MH40003976	GATEWAY RD	300	CO	73.46	2.91	0
MA40004380	L9	MH40003976	MH40003977	GATEWAY RD	300	CO	82.726	3.62	0
MA40004383	K9	MH40003977	MH40007219	GATEWAY RD	300	CO	84.135	5.42	0
MA40004388	L9	MH40003984	MH40004000	PRINCE RUPERT AV	300	CO	85	4.31	0
MA40004389	L9	MH40003985	MH40003984	PRINCE RUPERT AV	300	CO	42.557	3.11	0
MA40004390	L8	MH40004034	MH40004020	FLEMING AV	300	CO	121.646	3.96	0
MA40004394	L9	MH40003988	MH40003107	GOVERNMENT AV	300	CO	55.578	3.61	0
MA40004395	M9	MH40004001	MH40003995	FLEMING AV	375	CO	107.9	4.19	0
MA40004401	M9	MH40004140	MH40003995	GREY ST	600	CO	82.867	4.34	0
MA40004402	M9	MH40003995	MH40007308	GREY ST	750	CO	82.033	4.34	0
MA40004409	M9	MH40004000	MH40007308	PRINCE RUPERT AV	300	CO	93.88	3.71	0
MA40004410	M9	MH40004020	MH40003995	FLEMING AV	375	CO	125.88	4.19	0
MA40004422	O9	MH40004008	MH40004016	SIMPSON AV	300	CO	107.994	3.05	0
MA40004423	N9	MH40004009	MH40004015	CONSOL AV	300	CO	104.2	3.75	0
MA40004424	O9	MH40003109	MH40004009	CONSOL AV	300	CO	104.2	3.75	0
MA40004430	N8	MH40004016	MH40004161	SIMPSON AV	300	CO	107.59	3.50	0
MA40004443	N8	MH40004015	MH40004140	CONSOL AV	375	CO	104.326	3.69	0
MA40004448	L8	MH40004033	MH40004034	FLEMING AV	300	CO	3.963	3.24	0
MA40004450	M8	MH40004030	MH40004141	CONSOL AV	300	CO	98.797	3.73	0
MA40004451	L8	MH40004029	MH40004034	GATEWAY RD	300	CO	73.146	3.24	0
MA40004455	L8	MH40004040	MH40004054	NEIL AV	300	CO	101.74	5.10	0
MA40004512	M8	MH40004104	MH40004154	SIMPSON AV	300	CO	105.75	3.50	0
MA40004514	M7	MH40004139	MH40004104	GATEWAY RD	300	CO	45.72	3.07	0
MA40004516	M8	MH40004094	MH40004104	SIMPSON AV	300	CO	3.94	3.13	0
MA40004525	M8	MH40004103	MH40004104	GATEWAY RD	300	CO	71.63	3.07	0
MA40004561	M8	MH40004154	MH40004168	SIMPSON AV	375	CO	106.825	3.50	0
MA40004562	N8	MH40004168	MH40004140	GREY ST	450	CO	80.357	3.51	0

SORTED BY: DISTRICT, FLOW TYPE, ASSET

ASSET	MAP KEY	US NODE	DS NODE	STREET	SIZE	MATERIAL	LENGTH	MAX DEPTH	TRAFFIC COUNT
MA40004564	M8	MH40004141	MH40004140	CONSOL AV	300	CO	110.33	3.73	0
MA40004574	M7	MH40004183	MH40004139	GATEWAY RD	300	CO	50.832	2.51	0
MA40004592	N8	MH40004161	MH40004168	SIMPSON AV	375	CO	107.59	3.48	0
MA40004697	E7	MH40004283	MH40004281	WINTERTON AV	300	CO	83.36	2.99	0
MA40004705	E8	MH40004287	MH40004402	OTTAWA AV	300	CO	99.931	4.07	0
MA40004709	F8	MH40004294	MH40004329	WASHINGTON AV	300	CO	89.48	4.80	0
MA40004710	E8	MH40004816	MH40004294	WASHINGTON AV	300	CO	101.16	3.79	0
MA40004711	E9	MH40004794	MH40003112	BOWMAN AV	300	CO	102.11	4.28	0
MA40004714	E7	MH40004406	TE40001657	MUNROE AV	2050X3075	CO	157.989	0.00	5000
MA40004715	E6	PL40001654	MH40004299	BRAZIER ST	300	CO	51.2	0.00	0
MA40004716	E6	MH40004299	MH40004412	DONALDA AV	300	CO	105.607	0.00	0
MA40004722	E6	MH40004960	MH40004305	TRENT AV	375	CO	94.34	3.62	0
MA40004723	F6	MH40004305	MH40004435	TRENT AV	375	CO	95.68	0.00	0
MA40004730	E4	MH40004308	MH40004988	SYDNEY AV	375	CO	96.77	0.00	0
MA40004735	E4	MH40004409	MH40005858	MELBOURNE AV	375	CO	95.165	4.58	0
MA40004736	E5	MH40004411	MH40004991	NEIL AV	300	CO	137.303	3.72	0
MA40004737	E9	MH40004293	MH40004326	JAMISON AV	375	CO	96.096	4.59	0
MA40004740	F8	MH40004389	MH40004315	OTTAWA AV	300	CO	102.87	5.14	0
MA40004743	F8	MH40004315	MH40004408	OTTAWA AV	300	PVC	12.241	6.00	0
MA40004744	F8	MH40004316	MH40004408	ROCH ST	900	CO	81.521	6.00	0
MA40004745	F8	MH40004329	MH40004316	WASHINGTON AV	300	PVC	11.786	5.92	0
MA40004746	F8	MH40004317	MH40004316	WASHINGTON AV	300	PVC	11.859	5.92	0
MA40004749	F9	MH40004326	MH40004320	JAMISON AV	375	PVC	11.149	5.73	0
MA40004750	F8	MH40004320	MH40004316	ROCH ST	900	CO	81	5.92	0
MA40004751	F9	MH40004321	MH40004320	JAMISON AV	300	PVC	12.012	5.73	0
MA40004754	F9	MH40004324	MH40004320	ROCH ST	750	CO	81.6	5.73	0
MA40004759	F9	MH40004333	MH40004321	JAMISON AV	300	CO	106.38	4.62	0
MA40004762	F8	MH40004344	MH40004317	WASHINGTON AV	300	CO	91.44	4.97	0
MA40004765	I8	MH40004361	MH40004379	MUNROE AV	2100	CO	139.598	6.68	5000
MA40004767	G9	MH40004339	MH40004338	OTTAWA AV	300	CO	99.06	3.25	0
MA40004773	G9	MH40004345	MH40004344	WASHINGTON AV	300	CO	106.07	3.61	0
MA40004775	G9	MH40004351	MH40004345	WASHINGTON AV	300	CO	105.16	3.16	0
MA40004776	G8	MH40004338	MH40004389	OTTAWA AV	300	CO	100	3.94	0
MA40004787	I9	MH40004360	MH40004361	MUNROE AV	2100	CO	134.202	6.14	5000
MA40004788	J9	MH40006886	MH40004360	MUNROE AV	2100	CO	143.324	6.10	5000
MA40004791	H9	MH40004370	MH40004363	OTTAWA AV	300	CO	108.39	3.88	0
MA40004792	G9	MH40004363	MH40004364	OTTAWA AV	375	AC	5.84	6.18	10000
MA40004793	G9	MH40004366	MH40004364	WATT ST	900	AC	68.903	6.18	10000
MA40004794	H8	MH40004364	MH40004382	WATT ST	900	AC	81.339	6.18	10000
MA40004795	H8	MH40004369	MH40004396	ROW	300	CO	43.728	3.29	0
MA40004797	G9	MH40004367	MH40004366	WATT ST	900	AC	6.231	6.13	10000
MA40004798	G9	TE40001307	MH40004367	WATT ST	750X1125	CO	2.191	6.06	10000
MA40004806	H8	MH40004379	MH40004472	MUNROE AV	1900X2850	CO	101.888	6.68	5000
MA40004807	H8	MH40004376	TE40001376	WATT ST	1350	AC	11.273	6.23	5000
MA40004808	H8	MH40004382	MH40004376	WATT ST	900	AC	73.171	6.23	10000
MA40004813	I8	MH40004504	MH40004379	GOLSPIE ST	1050	CO	191.67	6.68	0
MA40004814	G8	MH40004382	MH40004383	WINTERTON AV	300	CO	104.139	3.81	0
MA40004824	G8	MH40004383	MH40004448	WINTERTON AV	375	CO	103.939	4.31	0
MA40004828	J8	MH40003894	MH40004465	DOBBIE AV	450	CO	119.4	4.55	0
MA40004829	H8	MH40004396	MH40004382	WINTERTON AV	300	CO	4.059	3.30	10000
MA40004830	F6	MH40004412	MH40004538	DONALDA AV	300	CO	106.68	0.00	0
MA40004831	F8	MH40004405	MH40004462	WINTERTON AV	300	CO	71.187	5.26	0

SORTED BY: DISTRICT, FLOW TYPE, ASSET

ASSET	MAP KEY	US NODE	DS NODE	STREET	SIZE	MATERIAL	LENGTH	MAX DEPTH	TRAFFIC COUNT
MA40004832	F7	TE40001365	MH40004406	MUNROE AV	2050X3075	CO	152.741	0.00	5000
MA40004838	F8	MH40004402	MH40004401	OTTAWA AV	300	CO	89.9	4.91	0
MA40004841	F7	MH40004281	MH40004405	WINTERTON AV	300	CO	82.6	3.22	0
MA40004842	F8	MH40004401	MH40004408	OTTAWA AV	300	PVC	12.186	6.00	0
MA40004843	F8	MH40004408	MH40004457	ROCH ST	900	CO	81	6.01	0
MA40004844	F4	MH40004417	MH40004409	MELBOURNE AV	300	CO	94.85	4.29	0
MA40004847	F6	PL40001336	MH40004412	BRAZIER ST	300	CO	46.9	0.00	0
MA40004851	F5	MH40004411	MH40004434	NEIL AV	250	CL	134.1	3.43	0
MA40004856	F4	MH40004542	MH40004417	MELBOURNE AV	300	CO	95.4	2.70	0
MA40004874	F6	MH40004435	MH40004530	TRENT AV	450	CO	105.92	0.00	0
MA40004875	F5	MH40004434	MH40004436	BRAZIER ST	300	CO	19.8	3.70	0
MA40004876	F6	MH40004436	MH40004435	BRAZIER ST	300	CO	82.508	3.68	0
MA40004888	G7	MH40004479	MH40004453	MUNROE AV	1950X2925	CO	158.71	6.68	5000
MA40004892	F8	MH40004448	MH40004451	WINTERTON AV	375	CO	105.8	5.40	0
MA40004895	F8	MH40004451	MH40004457	WINTERTON AV	375	CO	11.608	6.01	0
MA40004896	G7	MH40004545	MH40004452	ROCH ST	900	CO	94.09	5.58	0
MA40004897	F7	MH40004538	MH40004452	DONALDA AV	300	CO	106.412	5.43	0
MA40004900	G7	MH40004452	TE40001361	ROCH ST	900	CO	112.365	5.58	0
MA40004902	F7	MH40004457	MH40004456	ROCH ST	900	CO	58.6	6.07	0
MA40004907	F8	MH40004462	MH40004457	WINTERTON AV	300	PVC	10.956	6.01	0
MA40004908	F7	TE40001361	TE40001365	MUNROE AV	2050X3075	CO	0.314	0.00	5000
MA40004909	F7	MH40004453	TE40001361	MUNROE AV	2050X3075	CO	6.053	6.67	5000
MA40004913	I8	MH40004465	MH40004504	DOBBIE AV	450	CO	119.2	5.70	0
MA40004918	H8	MH40004485	TE40001370	WATT ST	1350	CO	106.952	0.00	5000
MA40004919	G8	TE40001370	MH40004479	MUNROE AV	1950X2925	CO	150.014	0.00	5000
MA40004927	I7	MH40004492	MH40004475	TRENT AV	300	CO	102.976	3.11	0
MA40004928	H7	TE40001377	MH40004475	WATT ST	1350	CO	4.634	6.07	5000
MA40004929	H7	MH40004495	TE40001377	WATT ST	1350	CO	40.359	5.83	5000
MA40004933	H7	MH40004498	MH40004562	NEIL AV	300	CO	91.74	3.85	0
MA40004937	G6	MH40004489	MH40004545	TRENT AV	300	CO	103.51	5.36	0
MA40004940	H7	MH40004475	MH40004485	WATT ST	1350	CO	102	6.07	5000
MA40004943	H7	MH40004488	MH40004489	TRENT AV	300	CO	103.33	3.87	0
MA40004944	H7	MH40004475	MH40004488	TRENT AV	300	CO	115	3.11	0
MA40004948	J7	MH40004521	MH40004500	GOLSPIE ST	1050	CO	91.368	6.02	0
MA40004951	I7	MH40004507	MH40004492	TRENT AV	300	CO	99.261	2.75	0
MA40004954	I7	MH40004499	MH40004495	WATT ST	1350	CO	89.188	5.91	0
MA40004958	I7	MH40004512	MH40004499	WATT ST	1350	CO	87.923	5.91	0
MA40004959	I7	MH40004513	MH40004499	NEIL AV	300	CO	97.54	5.92	0
MA40004960	I8	MH40004500	MH40004501	GOLSPIE ST	1050	CO	49.599	6.02	0
MA40004961	I8	MH40004501	MH40004504	GOLSPIE ST	1050	CO	6.131	5.90	0
MA40004969	J6	MH40004522	MH40004554	SYDNEY AV	300	CO	103.78	5.13	0
MA40004970	I6	MH40004554	MH40004512	WATT ST	1350	CO	44.41	5.68	0
MA40004971	I7	MH40004523	MH40004513	NEIL AV	300	CO	97.54	3.68	0
MA40004976	J7	MH40003914	MH40004522	SYDNEY AV	300	CO	104.24	3.48	0
MA40004979	J7	MH40004524	MH40004521	GOLSPIE ST	1150X1750	CO	39.62	5.69	0
MA40004983	G6	MH40004530	MH40004545	TRENT AV	450	CO	105.927	5.36	0
MA40004985	G5	MH40004531	MH40004615	SYDNEY AV	300	CO	94.33	3.48	0
MA40004995	F5	PL40001414	MH40004542	BRAZIER ST	300	CO	32	0.00	0
MA40004996	G4	PL40001459	MH40004542	BRAZIER ST	300	CO	42.7	0.00	0
MA40004999	G5	MH40004636	MH40004588	SYDNEY AV	300	CO	94.242	4.76	0
MA40005000	G6	MH40004549	MH40004545	ROCH ST	600X900	CO	54.581	5.44	0
MA40005003	G6	MH40004550	MH40004549	ROCH ST	750	CO	34.058	0.00	0

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ASSET	MAP KEY	US NODE	DS NODE	STREET	SIZE	MATERIAL	LENGTH	MAX DEPTH	TRAFFIC COUNT
MA40005004	G6	MH40004551	MH40004550	ROCH ST	750	CO	32.9	5.10	0
MA40005005	G6	MH40004585	MH40004551	ROCH ST	750	CO	79.192	0.00	0
MA40005006	G6	MH40004565	MH40004551	NEIL AV	375	CO	46.6	0.00	0
MA40005009	I6	MH40004554	MH40004555	SYDNEY AV	300	CO	88.15	2.83	0
MA40005012	I6	MH40004577	MH40004574	MELBOURNE AV	300	CO	93.475	2.26	0
MA40005019	I6	MH40004574	TE40001423	WATT ST	1350	CO	79.854	0.00	0
MA40005020	I6	TE40001423	MH40004554	WATT ST	1350	CO	2.629	5.68	0
MA40005021	H6	MH40004562	MH40004566	NEIL AV	300	CO	85.04	3.85	0
MA40005025	H6	MH40004570	MH40004593	SYDNEY AV	375	CO	93.42	4.11	0
MA40005026	H6	MH40004566	MH40004567	NEIL AV	375	CO	85.65	4.78	0
MA40005027	G6	MH40004567	MH40004565	NEIL AV	375	CO	5.664	0.00	0
MA40005030	J6	MH40004601	TE40001429	WATT ST	1200	CO	90.127	0.00	0
MA40005031	J6	TE40001429	MH40004574	WATT ST	1200	CO	5.14	0.00	0
MA40005034	J6	MH40004575	MH40004574	MELBOURNE AV	375	CO	129.24	0.00	0
MA40005044	H6	MH40004588	MH40004585	ROCH ST	500X750	CO	31.832	4.98	0
MA40005046	H6	MH40004587	MH40004632	MELBOURNE AV	375	CO	92.93	2.47	0
MA40005049	H5	MH40004631	MH40004588	ROCH ST	450	CO	82.589	4.76	0
MA40005052	H6	MH40004593	MH40004588	SYDNEY AV	375	CO	93.728	4.76	0
MA40005072	G5	MH40004607	MH40004657	MELBOURNE AV	300	CO	93.51	0.00	0
MA40005078	G5	MH40004613	MH40004607	MELBOURNE AV	300	CO	95.71	2.56	0
MA40005081	G5	MH40004615	MH40004636	SYDNEY AV	300	CO	94.49	4.13	0
MA40005099	H5	MH40004666	MH40004631	ROCH ST	375	CO	95.194	4.04	0
MA40005102	H5	MH40004632	MH40004631	MELBOURNE AV	375	CO	94.37	0.00	0
MA40005106	H5	MH40004657	MH40004631	MELBOURNE AV	300	CO	93.83	0.00	0
MA40005248	C8	MH40004788	MH40004810	LARSEN AV	300	CO	105.77	4.23	0
MA40005255	D8	PL40001565	MH40004771	BRAZIER ST	300	CO	35.97	3.40	0
MA40005256	D8	PL40001531	MH40004771	BRAZIER ST	300	CO	36	3.40	0
MA40005259	E9	MH40004773	MH40004794	BOWMAN AV	300	CO	102.11	4.07	0
MA40005264	D9	MH40004779	MH40004778	LARSEN AV	300	CO	101.89	3.48	0
MA40005274	D9	MH40004785	MH40004788	LARSEN AV	300	CO	106.47	3.23	0
MA40005277	D8	MH40004771	MH40004831	BOWMAN AV	300	CO	109.675	3.83	0
MA40005278	D9	MH40004791	MH40004773	BOWMAN AV	300	CO	88.635	3.43	0
MA40005279	E8	MH40004823	MH40004293	JAMISON AV	375	CO	106.34	4.37	0
MA40005285	C8	MH40004800	MH40004838	HENDERSON HW	450	CO	32.914	5.02	20000
MA40005286	B8	MH40004802	MH40004801	HENDERSON HW	300	CO	29.262	3.93	20000
MA40005287	B8	MH40004801	MH40004800	HENDERSON HW	450	CO	48.463	4.15	20000
MA40005288	C8	MH40004810	MH40004801	LARSEN AV	375	CO	105.86	4.23	0
MA40005291	C8	MH40004809	MH40004838	BOWMAN AV	375	CO	110.15	4.96	0
MA40005297	C8	MH40004831	MH40004809	BOWMAN AV	375	CO	110.52	4.40	0
MA40005302	D8	MH40004872	MH40004828	JAMISON AV	300	CO	96.01	3.52	0
MA40005304	E8	MH40004912	MH40004816	WASHINGTON AV	300	CO	104.2	3.15	0
MA40005307	D8	PL40001560	MH40004911	BRAZIER ST	300	CO	33.53	3.22	0
MA40005312	E8	MH40004834	MH40004823	JAMISON AV	300	CO	108.48	4.21	0
MA40005316	D8	MH40004828	MH40004834	JAMISON AV	300	CO	97.08	3.57	0
MA40005323	B7	MH40004836	MH40004837	BREDIN DR	300	CO	50.9	0.00	0
MA40005324	C7	MH40004837	MH40004874	BREDIN DR	300	CO	91.881	0.00	0
MA40005325	C8	MH40004838	MH40004863	HENDERSON HW	600	CO	67.639	5.03	20000
MA40005342	B7	PL40001578	MH40004857	BREDIN DR	300	CO	20.331	0.00	0
MA40005343	B7	MH40004858	MH40004860	ROOSEVELT PL	300	CO	70.608	5.32	0
MA40005344	C7	MH40004859	MH40004881	HENDERSON HW	675	CO	81.302	5.18	20000
MA40005345	C7	MH40004860	MH40004859	ROOSEVELT PL	300	CO	77.72	5.32	0
MA40005348	C7	MH40004863	MH40004859	HENDERSON HW	675	CO	14.021	5.06	20000

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ASSET	MAP KEY	US NODE	DS NODE	STREET	SIZE	MATERIAL	LENGTH	MAX DEPTH	TRAFFIC COUNT
MA40005351	C7	MH40004882	MH40004859	JAMISON AV	300	CO	67.97	5.07	0
MA40005352	B7	MH40004854	MH40004856	BREDIN DR	300	CO	65.057	3.27	0
MA40005353	B7	MH40004856	MH40004857	BREDIN DR	300	CO	23.4	2.86	0
MA40005354	B8	MH40004855	MH40004838	BREDIN DR	300	CO	103.672	4.96	0
MA40005358	D7	MH40004897	MH40004869	WASHINGTON AV	375	CO	111.76	4.56	0
MA40005365	C7	MH40004889	MH40004923	OTTAWA AV	300	CO	103.63	5.30	0
MA40005366	C7	MH40004874	MH40004923	HENDERSON HW	675	CO	65.128	5.44	20000
MA40005369	C8	MH40004872	MH40004882	JAMISON AV	300	CO	69.12	4.64	0
MA40005372	C7	MH40004881	MH40004874	HENDERSON HW	675	CO	16.199	0.00	20000
MA40005377	C7	MH40004869	MH40004881	WASHINGTON AV	375	CO	109.7	4.56	0
MA40005380	D7	MH40004898	MH40004889	OTTAWA AV	300	CO	103.27	3.90	0
MA40005383	E7	MH40004891	MH40004283	WINTERTON AV	300	CO	71.78	2.59	0
MA40005384	E7	MH40004892	MH40004287	OTTAWA AV	300	CO	104.949	3.59	0
MA40005389	D8	MH40004911	MH40004897	WASHINGTON AV	300	CO	109.39	4.10	0
MA40005390	D7	MH40004906	MH40004898	OTTAWA AV	300	CO	103.24	3.81	0
MA40005394	E7	MH40004891	MH40004943	WINTERTON AV	300	CO	108.651	3.52	0
MA40005409	E7	PL40001616	MH40004891	BRAZIER ST	300	CO	34.75	2.97	0
MA40005410	E7	PL40001613	MH40004891	BRAZIER ST	300	CO	32	2.97	0
MA40005411	D8	PL40001619	MH40004911	BRAZIER ST	300	CO	32.6	3.22	0
MA40005414	D6	MH40004951	MH40004917	HENDERSON HW	750X1125	CO	111.245	6.80	20000
MA40005420	C6	MH40004923	MH40004922	HENDERSON HW	825	CO	82.045	5.44	20000
MA40005428	C6	TE40001634	TE70007907	ROW	2150X3150	CO	90.71	0.00	0
MA40005434	D6	MH40004917	TE40001634	MUNROE AV	2150X3150	CO	12.793	7.72	20000
MA40005442	D5	TE40001641	MH40004951	HENDERSON HW	600X900	CO	5.574	0.00	20000
MA40005443	D5	MH40004963	TE40001641	HENDERSON HW	600X900	CO	89.069	0.00	20000
MA40005446	E6	MH40004955	MH40004942	MUNROE AV	2050X3075	CO	157.05	8.04	5000
MA40005454	D6	MH40004952	MH40004951	DONALDA AV	300	CO	109.066	3.79	0
MA40005455	E6	MH40004954	MH40004952	DONALDA AV	300	CO	89.809	3.79	0
MA40005457	E5	MH40004979	MH40004960	TRENT AV	300	CO	95.71	3.62	0
MA40005464	E6	MH40004299	MH40004954	DONALDA AV	300	CO	102.711	3.19	0
MA40005467	D4	MH40004980	MH40004964	HENDERSON HW	500X750	CO	102.573	0.00	20000
MA40005468	D5	MH40004962	MH40004979	TRENT AV	300	CO	97.38	3.19	0
MA40005475	D5	MH40004964	MH40004974	HENDERSON HW	600X900	CO	17.683	0.00	20000
MA40005476	D5	MH40004974	MH40004963	HENDERSON HW	600X900	CO	84.691	0.00	20000
MA40005477	D4	MH40004971	MH40004972	NEIL PL	250	CO	36.27	2.90	0
MA40005478	D4	MH40004972	MH40004973	NEIL PL	250	CO	16.31	0.00	0
MA40005479	D5	MH40004973	MH40004974	NEIL PL	250	CO	76.96	0.00	0
MA40005484	E4	MH40004988	MH40004980	SYDNEY AV	375	CO	96.522	0.00	0
MA40005491	E4	MH40006364	MH40004980	HENDERSON HW	450	CO	20.045	0.00	20000
MA40005495	E5	MH40004991	MH40004964	NEIL AV	300	CO	122.01	3.72	0
MA40006392	E3	PL40001926	MH40006363	HENDERSON HW	250	CO	42	0.00	20000
MA40006867	D4	MH40006295	MH40006296	KILDONAN DR	300	CO	76.81	0.00	0
MA40006868	D4	MH40006296	MH40006364	KILDONAN DR	300	CO	107.994	0.00	0
MA40006934	D3	MH40006339	MH40006348	ROW	200	CO	45.654	0.00	0
MA40006942	E3	MH40006348	TE40002205	CANTERBURY PL	250	CO	126.818	0.00	0
MA40006957	E4	MH40006362	MH40006361	HENDERSON HW	375	CO	41.942	0.00	20000
MA40006958	E4	MH40005858	MH40006361	MELBOURNE AV	375	CO	94.897	4.42	0
MA40006959	E3	MH40006363	TE40002205	HENDERSON HW	250	CO	81.268	0.00	20000
MA40006960	E4	TE40002205	MH40006362	CANTERBURY PL	250	CO	4.13	0.00	20000
MA40006961	E3	MH40006365	MH40006363	CHELSEA PL	300	CO	97.23	3.36	0
MA40006962	E4	MH40006361	MH40006364	HENDERSON HW	450	CO	62.765	0.00	20000
MA40007006	E7	TE40001657	TE40001638	MUNROE AV	2050X3075	CO	0.517	0.00	5000

SORTED BY: DISTRICT, FLOW TYPE, ASSET

ASSET	MAP KEY	US NODE	DS NODE	STREET	SIZE	MATERIAL	LENGTH	MAX DEPTH	TRAFFIC COUNT
MA40007007	E7	TE40001638	MH40004955	MUNROE AV	2050X3075	CO	1.995	7.27	5000
MA40007016	F5	MH40004534	MH40004427	SYDNEY AV	300	CO	97.08	2.78	0
MA40007017	F5	MH40004427	MH40004308	SYDNEY AV	300	CO	96.71	2.73	0
MA40007018	B7	MH40004857	MH40004846	BREDIN DR	300	CO	34.525	2.98	0
MA40007019	B7	MH40004846	MH40004858	BREDIN DR	300	CO	41.465	3.55	0
MA40007108	Q1	MH40009528	MH40006646	PIKE CR	525	CO	106.658	3.82	0
MA40007110	R1	MH40009598	MH40006486	KISIL BY	300	CO	97.844	3.80	0
MA40007111	R1	MH40009629	MH40006486	ROW	450	CO	51.51	3.80	0
MA40007112	R1	MH40009632	MH40006645	PREVETTE ST	1200	CO	77.52	0.00	0
MA40007162	O1	PL40002283	MH40006543	MOLSON ST	300	CO	26.2	4.34	0
MA40007163	P1	MH40006536	MH40006567	WEEDON ST	300	CO	104.55	2.84	0
MA40007165	P1	MH40006538	MH40006552	BYARS BY	375	CO	68.58	3.63	0
MA40007166	P1	MH40006546	MH40006538	BYARS BY	375	CO	13.106	3.51	0
MA40007169	O1	MH40006541	MH40007053	HAMPSTEAD AV	750	CO	91.297	5.05	0
MA40007170	P1	MH40006555	MH40006542	ROW	750	CO	62.5	4.86	0
MA40007171	P1	MH40006542	MH40006543	MOLSON ST	600	CO	72.5	4.80	0
MA40007172	O1	MH40006543	MH40007001	CONNERY AV	600	CO	87.313	4.34	0
MA40007175	P1	MH40006547	MH40006546	BYARS BY	300	CO	63.7	3.51	0
MA40007176	P1	MH40006547	MH40006548	BYARS BY	300	CO	30.264	3.27	0
MA40007177	P1	MH40006548	MH40006549	BYARS BY	300	CO	37.49	3.27	0
MA40007178	P1	MH40006549	MH40006647	BYARS BY	375	CO	88.7	3.88	0
MA40007179	Q1	MH40006657	MH40006549	BYARS PL	300	CO	64	3.26	0
MA40007182	P1	MH40006552	MH40006603	BYARS BY	375	CO	75.9	4.18	0
MA40007187	Q1	MH40006557	MH40006644	KEENLEYSIDE ST	750	CO	73.995	3.74	0
MA40007188	P1	MH40006484	MH40006556	KEENLEYSIDE ST	750	CO	66.869	3.48	0
MA40007189	P1	MH40006556	MH40006557	KEENLEYSIDE ST	450	CO	39.308	3.46	0
MA40007197	O1	MH40006569	TE40002299	BESANT ST	1050	CO	97.988	5.15	0
MA40007198	P1	TE40002303	TE40002299	MUNROE AV	1525	CO	96.353	0.00	0
MA40007199	O1	TE40002299	MH40006570	MUNROE AV	1525	CO	3.96	5.07	0
MA40007200	P1	MH40006607	MH40006593	MONCTON AV	375	CO	104.09	5.14	0
MA40007203	O1	MH40006593	TE40002302	BESANT ST	900	CO	87.743	5.11	0
MA40007204	P1	MH40006604	TE40002303	MUNROE AV	1525	CO	61.148	0.00	0
MA40007205	P1	MH40006567	TE40002303	WEEDON ST	375	CO	70.04	2.94	0
MA40007206	O1	MH40006570	TE40002302	MUNROE AV	1525	CO	1.97	0.00	0
MA40007207	O1	TE40002302	TE40002621	MUNROE AV	1525	CO	82.922	0.00	0
MA40007214	P1	MH40006583	MH40006633	PRINCE RUPERT AV	300	CO	99.983	4.44	0
MA40007218	P9	MH40006579	MH40006600	CONSOL AV	375	CO	107.2	3.04	0
MA40007219	O9	MH40007328	MH40006579	CONSOL AV	300	CO	96.326	3.13	0
MA40007222	P1	MH40006582	MH40006573	GOVERNMENT AV	300	CO	96.01	0.00	0
MA40007223	O1	MH40007281	MH40006583	PRINCE RUPERT AV	300	CO	105.37	4.03	0
MA40007228	O1	MH40006593	MH40006588	MONCTON AV	450	CO	105.01	5.01	0
MA40007229	P1	MH40006612	MH40006573	GOVERNMENT AV	300	CO	101.24	4.63	0
MA40007236	P1	MH40006630	MH40006573	BESANT ST	675	CO	81.01	4.98	0
MA40007241	P1	MH40006600	MH40006635	CONSOL AV	375	CO	101.8	4.40	0
MA40007243	P1	TE40002349	TE40002323	MUNROE AV	1525	CO	85.336	0.00	0
MA40007245	P1	MH40006603	TE40002323	BYARS BY	375	CO	4.57	4.18	0
MA40007246	P1	TE40002323	MH40006604	MUNROE AV	1525	CO	12	0.00	0
MA40007249	P1	MH40006730	MH40006607	MONCTON AV	300	CO	99.52	4.19	0
MA40007255	Q1	MH40006755	MH40006629	PRINCE RUPERT AV	300	CO	102.5	4.09	0
MA40007256	P1	MH40006728	MH40006612	GOVERNMENT AV	300	CO	107.393	4.22	0
MA40007261	P9	MH40006618	MH40006619	SIMPSON AV	375	CO	106.07	4.07	0
MA40007264	P1	MH40006619	MH40006635	BESANT ST	450	CO	80.487	4.40	0

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ASSET	MAP KEY	US NODE	DS NODE	STREET	SIZE	MATERIAL	LENGTH	MAX DEPTH	TRAFFIC COUNT
MA40007267	Q9	MH40006746	MH40006619	SIMPSON AV	375	CO	106.68	4.11	0
MA40007268	P1	MH40006635	MH40006626	BESANT ST	600	CO	82.565	4.58	0
MA40007271	P1	MH40006626	MH40006630	BESANT ST	750	CO	82.013	4.70	0
MA40007274	P1	MH40006629	MH40006630	PRINCE RUPERT AV	375	CO	102.14	4.36	0
MA40007277	P1	MH40006633	MH40006630	PRINCE RUPERT AV	300	CO	3.707	4.49	0
MA40007278	Q1	MH40006745	MH40006635	CONSOL AV	375	CO	101.15	4.40	0
MA40007279	P1	MH40006750	MH40006626	FLEMING AV	375	CO	107.345	4.29	0
MA40007283	R1	MH40006638	MH40006692	MONCTON AV	450	CO	122.748	4.22	0
MA40007284	R1	MH40006638	MH40006661	MONCTON AV	300	CO	92.72	3.80	0
MA40007286	Q1	MH40006662	MH40006639	LOUELDA ST	750	CO	91	5.18	0
MA40007287	R1	MH40006696	MH40006641	MOLSON ST	1200	CO	87.914	5.75	0
MA40007290	R1	MH40006645	MH40006689	PREVETTE ST	1350	CO	91.432	5.15	0
MA40007293	Q1	MH40006647	TE40002349	BYARS BY	375	CO	4.225	3.85	0
MA40007294	Q1	MH40006640	TE40002349	MUNROE AV	1525	CO	62.163	4.09	0
MA40007299	Q1	MH40006639	TE40002352	LOUELDA ST	750	CO	2.583	5.18	0
MA40007300	Q1	TE40002352	MH40006640	MUNROE AV	1525	CO	6.042	0.00	0
MA40007310	Q1	MH40006661	MH40006662	MONCTON AV	300	CO	92.395	4.49	0
MA40007311	Q1	MH40006731	MH40006662	LOUELDA ST	750	CO	80.336	5.14	0
MA40007315	S1	MH40006664	MH40006665	ROW	250	CO	35.694	2.81	0
MA40007326	S1	MH40006677	MH40006680	ROW	450	CO	61.536	4.52	0
MA40007327	S1	MH40006665	MH40006677	ROW	375	CO	68.55	3.16	0
MA40007328	S1	MH40006680	MH40006688	MUNROE AV	750	CO	100.58	4.53	0
MA40007330	R1	MH40006681	MH40006689	KISIL BY	525	CO	87.164	4.36	0
MA40007331	R1	MH40006486	MH40006681	KISIL BY	450	CO	77.103	4.12	0
MA40007332	R1	MH40006689	MH40006688	PREVETTE ST	1350	CO	105.168	5.15	0
MA40007335	S1	MH40006679	MH40006690	ROW	250	CO	31.02	3.60	0
MA40007336	S1	MH40006678	MH40006679	ROW	250	CO	32.692	2.75	0
MA40007337	S1	MH40006690	MH40006677	ROW	375	CO	13.393	3.79	0
MA40007343	R1	MH40006693	MH40006692	BATTERSHILL ST	600	CO	34.74	4.28	0
MA40007344	S1	MH40006813	MH40006693	BATTERSHILL ST	600	CO	89.413	3.99	0
MA40007345	S1	MH40006797	MH40006694	MONCTON AV	600	CO	101.704	3.57	0
MA40007346	S1	MH40006694	MH40006692	MONCTON AV	600	CO	65.83	4.27	0
MA40007348	S1	MH40006712	MH40006690	ROW	375	CO	54.01	3.61	0
MA40007349	S1	MH40006709	MH40006697	MOLSON ST	900	CO	114.122	5.27	0
MA40007350	S1	MH40006692	MH40006697	BATTERSHILL ST	750	CO	72.737	5.16	0
MA40007351	R1	MH40006697	MH40006696	MOLSON ST	1200	CO	88.82	5.16	0
MA40007357	S1	MH40006703	MH40006704	BREWER CR	600	CO	18.75	4.17	0
MA40007358	T1	MH40006706	MH40006703	PRICE DR	375	CO	95.75	4.25	0
MA40007359	T1	MH40006823	MH40006706	PRICE DR	250	CO	53.322	3.22	0
MA40007360	S1	MH40006826	MH40006703	BREWER CR	525	CO	68.389	4.15	0
MA40007363	S1	MH40006704	MH40006710	BREWER CR	600	CO	24.266	4.67	0
MA40007364	S1	MH40006710	MH40006709	MOLSON ST	750	CO	24.854	4.69	0
MA40007365	S1	MH40006711	MH40006710	MOLSON ST	450	CO	51.956	4.77	0
MA40007366	T1	MH40006705	MH40006711	MOLSON ST	450	CO	77.11	4.72	0
MA40007367	S1	MH40006713	MH40006712	ROW	250	CO	38.03	2.28	0
MA40007368	T1	MH40006714	MH40006715	GIRDWOOD CR	250	CO	22.86	2.70	0
MA40007369	T1	MH40006715	MH40006716	PANET RD	250	CO	45.622	2.92	0
MA40007370	S1	MH40006716	MH40006712	ROW	250	CO	94.895	3.20	0
MA40007376	R1	MH40006743	MH40006756	FLEMING AV	300	CO	84.06	3.74	0
MA40007377	R1	MH40006739	MH40006722	PRINCE RUPERT AV	300	CO	95.512	3.64	0
MA40007378	R1	MH40006756	MH40006722	LOUELDA ST	600	CO	82.292	3.87	0
MA40007379	Q1	MH40006725	MH40006755	PRINCE RUPERT AV	300	CO	100.74	3.43	0

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ASSET	MAP KEY	US NODE	DS NODE	STREET	SIZE	MATERIAL	LENGTH	MAX DEPTH	TRAFFIC COUNT
MA40007386	Q1	MH40006734	MH40006730	MONCTON AV	300	CO	98.749	3.34	0
MA40007387	Q1	MH40006722	MH40006731	LOUELDA ST	600	CO	81.5	4.75	0
MA40007391	Q1	MH40006735	MH40006728	GOVERNMENT AV	300	CO	110.79	3.77	0
MA40007392	Q1	PL40002378	MH40006735	LOUELDA ST	300	CO	6	0.00	0
MA40007393	Q1	PL40002379	MH40006735	LOUELDA ST	300	CO	6	0.00	0
MA40007400	R1	MH40006740	MH40006739	PRINCE RUPERT AV	300	CO	59.59	3.07	0
MA40007403	R1	MH40006805	MH40006743	FLEMING AV	300	CO	87.737	3.57	0
MA40007406	Q1	MH40006780	MH40006745	CONSOL AV	300	CO	103.24	3.60	0
MA40007407	Q1	MH40006775	MH40006746	SIMPSON AV	300	CO	104.24	3.85	0
MA40007411	Q1	MH40006771	MH40006750	FLEMING AV	300	CO	106.83	3.97	0
MA40007418	R1	MH40006767	MH40006756	LOUELDA ST	600	CO	82.291	3.99	0
MA40007419	R1	PL40002392	MH40006763	LOUELDA ST	300	CO	6	0.00	0
MA40007422	Q1	MH40006763	MH40006771	FLEMING AV	300	CO	106.38	3.62	0
MA40007428	R1	PL40002391	MH40006763	LOUELDA ST	300	CO	6	0.00	0
MA40007430	R1	MH40006849	MH40006788	SIMPSON AV	375	CO	108	2.84	0
MA40007433	R1	MH40006804	MH40006767	CONSOL AV	300	CO	86.1	3.65	0
MA40007434	R1	MH40006788	MH40006767	LOUELDA ST	600	CO	82.296	3.87	0
MA40007444	R1	MH40006790	MH40006775	SIMPSON AV	300	CO	109.73	3.14	0
MA40007448	Q1	MH40006779	MH40006780	CONSOL AV	300	CO	100.43	3.31	0
MA40007463	R1	PL40002404	MH40006790	LOUELDA ST	300	CO	6	0.00	0
MA40007464	R1	PL40002405	MH40006790	LOUELDA ST	300	CO	6	0.00	0
MA40007467	S1	MH40006818	MH40006795	BATTERSHILL ST	375	CO	106.01	2.74	0
MA40007468	S1	MH40006796	MH40006849	SIMPSON AV	300	CO	103.1	2.34	0
MA40007469	S1	MH40006827	MH40006797	MONCTON AV	375	CO	101.44	3.13	0
MA40007472	R1	MH40006801	MH40006807	CONSOL AV	300	CO	91.002	3.16	0
MA40007476	R1	MH40006817	MH40006804	CONSOL AV	300	CO	85.678	2.80	0
MA40007477	R1	MH40006817	MH40006805	CONSOL AV	300	CO	82.309	2.96	0
MA40007478	R1	MH40006806	MH40006805	CONSOL AV	300	CO	12.945	2.96	0
MA40007479	R1	MH40006807	MH40006806	CONSOL AV	300	CO	19.278	2.94	0
MA40007483	S1	MH40006795	MH40006813	BATTERSHILL ST	600	CO	87.17	3.31	0
MA40007489	S1	MH40006833	MH40006796	SIMPSON AV	300	CO	42.939	2.34	0
MA40007490	S1	MH40006833	MH40006818	BATTERSHILL ST	0	ZZZ	19.004	0.00	0
MA40007491	T1	MH40006819	MH40006822	GARVIE WK	375	CO	42.633	3.53	0
MA40007493	T1	MH40006821	MH40006822	GARVIE BY	375	CO	33.223	3.22	0
MA40007494	T1	MH40006510	MH40006821	GARVIE BY	250	CO	94.73	3.54	0
MA40007495	T1	MH40006824	MH40006825	BREWER CR	250	CO	93.27	3.62	0
MA40007496	T1	MH40006825	MH40006826	BREWER CR	375	CO	32	3.30	0
MA40007497	S1	MH40006828	MH40006827	MONCTON AV	300	CO	104.42	3.04	0
MA40007502	S1	MH40006830	MH40006833	SIMPSON AV	300	CO	61.061	2.55	0
MA40007548	J1	MH40007641	MH40006880	NOTTINGHAM AV	300	CO	90.22	3.60	0
MA40007549	K1	MH40006880	MH40007090	NOTTINGHAM AV	375	CO	91.29	4.79	0
MA40007551	J1	MH40006893	MH40007079	GATEWAY RD	375	CO	50.96	4.51	0
MA40007557	J1	MH40006885	MH40007685	ROW	450	CO	40.984	6.00	0
MA40007561	K9	MH40007205	MH40006886	MUNROE AV	2125	CO	146.029	6.13	5000
MA40007562	J1	MH40006887	MH40007067	LOCKSLEY BY	300	CO	62.48	4.53	0
MA40007563	J1	MH40006888	MH40007067	DALLENLEA AV	300	CO	65.84	4.12	0
MA40007568	J1	MH40006896	MH40006893	GATEWAY RD	300	CO	32.179	4.31	0
MA40007572	J1	MH40006897	MH40006887	LOCKSLEY BY	300	CO	63.308	3.76	0
MA40007573	J1	MH40006897	MH40007062	LOCKSLEY BY	300	CO	76.515	3.76	0
MA40007627	N1	MH40006982	MH40006943	NOTTINGHAM AV	375	CO	107.75	4.60	0
MA40007628	N1	MH40006955	MH40006943	NOTTINGHAM AV	300	CO	39.32	4.61	0
MA40007636	N1	MH40006947	MH40006998	BESANT ST	525	CO	78.105	4.68	0

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ASSET	MAP KEY	US NODE	DS NODE	STREET	SIZE	MATERIAL	LENGTH	MAX DEPTH	TRAFFIC COUNT
MA40007637	N1	MH40006943	MH40006947	BESANT ST	300	CO	3.612	4.68	0
MA40007649	O1	MH40006959	MH40006998	NORWICH AV	525	CO	113.84	4.16	0
MA40007650	L1	MH40007014	MH40006961	NOTTINGHAM AV	300	CO	97.23	0.00	0
MA40007651	K1	MH40006961	MH40007086	NOTTINGHAM AV	375	CO	97.23	4.13	0
MA40007670	M1	MH40006993	MH40006982	NOTTINGHAM AV	300	CO	115.847	3.89	0
MA40007678	M1	MH40006993	MH40007019	NOTTINGHAM AV	300	CO	104.55	3.83	0
MA40007681	N1	MH40006994	MH40007037	DONEGAL BY	300	CO	85.549	3.12	0
MA40007682	N1	MH40006994	MH40007035	DONEGAL BY	375	CO	119.201	3.53	0
MA40007688	O1	MH40007001	MH40007052	CONNERY AV	750	CO	91.617	4.35	0
MA40007689	N1	MH40006998	MH40007052	BESANT ST	750	CO	86.139	4.42	0
MA40007691	M1	MH40007035	MH40007002	DONEGAL BY	450	CO	117.04	3.77	0
MA40007692	M1	MH40007002	MH40007122	LONDON ST	750	CO	82.332	4.07	0
MA40007700	M1	MH40007008	MH40007002	LONDON ST	375	CO	82.689	3.93	0
MA40007701	M1	MH40007019	MH40007008	NOTTINGHAM AV	300	CO	8.965	3.97	0
MA40007702	M1	PL40002511	MH40007019	LONDON ST	300	CO	23	3.83	0
MA40007707	L1	MH40007013	MH40007014	NOTTINGHAM AV	300	CO	96.93	3.28	0
MA40007713	M1	MH40007020	MH40007114	ADAMDELL CR	300	CO	58.22	3.93	0
MA40007714	L1	MH40007021	MH40007020	ADAMDELL CR	300	CO	39.62	3.66	0
MA40007721	L1	MH40007026	MH40007117	ROBIN HOOD CR	300	CO	100.58	4.03	0
MA40007731	M1	MH40007036	MH40007122	DONEGAL BY	525	CO	127.1	4.07	0
MA40007732	N1	MH40007037	MH40007036	DONEGAL BY	450	CO	121.991	3.36	0
MA40007739	N1	MH40007045	MH40007047	TUDOR CR	300	CO	82.27	3.08	0
MA40007741	N1	MH40007045	MH40007158	MARSDEN ST	300	CO	119.136	3.66	0
MA40007742	N1	MH40007045	MH40007123	TUDOR CR	300	CO	83.986	4.44	0
MA40007744	O1	MH40007047	MH40007131	TUDOR CR	375	CO	118.57	4.25	0
MA40007747	O1	MH40007051	MH40007053	BESANT ST	900	CO	84.151	5.06	0
MA40007748	O1	MH40007052	MH40007051	BESANT ST	900	CO	41.61	4.44	0
MA40007749	O1	MH40007053	MH40006569	BESANT ST	1050	CO	99.671	5.29	0
MA40007756	K1	MH40007057	MH40007102	LOCKSLEY BY	300	CO	62.79	4.51	0
MA40007759	K1	MH40007062	MH40007057	LOCKSLEY BY	300	CO	63.18	3.48	0
MA40007764	K1	MH40007067	MH40007102	DALLENLEA AV	375	CO	76.519	4.59	0
MA40007768	K1	TE40002553	MH40007072	GATEWAY RD	2125	CO	3.036	0.00	0
MA40007770	K1	MH40007073	TE40002553	GATEWAY RD	450	CO	5.02	0.00	0
MA40007771	K1	MH40007209	MH40007073	GATEWAY RD	450	CO	102.29	5.53	0
MA40007775	K1	MH40007072	TE40002637	GATEWAY RD	2125	CO	92.194	0.00	0
MA40007778	K1	MH40007080	MH40007204	HOSKIN AV	300	CO	96.32	3.61	0
MA40007783	K1	MH40007079	TE40002554	GATEWAY RD	375	CO	100.332	4.51	0
MA40007790	K1	MH40007086	MH40007090	NOTTINGHAM AV	375	CO	97.23	4.84	0
MA40007792	K1	MH40007092	MH40007093	WYNTEN CR	300	CO	44.2	5.04	0
MA40007797	K1	MH40007093	MH40007105	GREY ST	600	CO	106.318	4.19	0
MA40007798	K1	MH40007098	MH40007093	GREY ST	600	CO	66.576	0.00	0
MA40007799	K1	MH40007090	MH40007098	GREY ST	600	CO	40.702	4.94	0
MA40007802	K1	MH40007102	MH40007106	DALLENLEA AV	400	CO	68.656	0.59	0
MA40007803	L1	MH40007105	MH40007142	GREY ST	900	CO	85.317	5.28	0
MA40007806	K1	MH40007106	MH40007105	DALLENLEA AV	450	CO	67.531	5.13	0
MA40007807	L1	MH40007201	MH40007142	HOSKIN AV	375	CO	95.71	4.85	0
MA40007812	L1	MH40007117	MH40007112	ROBIN HOOD CR	300	CO	100.89	4.32	0
MA40007813	L1	MH40007112	MH40007148	ROBIN HOOD CR	375	CO	21.64	4.20	0
MA40007816	M1	MH40007113	MH40007172	ADAMDELL CR	300	CO	24.08	4.46	0
MA40007817	M1	MH40007114	MH40007113	ADAMDELL CR	300	CO	57.91	4.45	0
MA40007822	M1	MH40007124	MH40007179	LONDON ST	900	CO	45.354	5.60	0
MA40007825	N1	MH40007123	MH40007124	TUDOR CR	375	CO	85.8	5.60	0

SORTED BY: DISTRICT, FLOW TYPE, ASSET

ASSET	MAP KEY	US NODE	DS NODE	STREET	SIZE	MATERIAL	LENGTH	MAX DEPTH	TRAFFIC COUNT
MA40007828	M1	MH40007122	MH40007124	LONDON ST	750	CO	83.57	5.60	0
MA40007833	O1	MH40007131	MH40007180	TUDOR CR	450	CO	117.508	4.36	0
MA40007838	L1	MH40007142	MH40007236	GREY ST	900	CO	86.237	5.01	0
MA40007840	L1	MH40007138	MH40007142	HOSKIN AV	750	CO	79.229	5.07	0
MA40007841	L1	MH40007139	MH40007138	ROBIN HOOD CR	600	CO	39.258	0.00	0
MA40007848	L1	MH40007147	MH40007149	ROBIN HOOD CR	375	CO	59.74	4.75	0
MA40007849	L1	MH40007148	MH40007147	ROBIN HOOD CR	375	CO	59.74	4.17	0
MA40007850	L1	MH40007171	MH40007149	ADAMDELL CR	375	CO	97.84	4.37	0
MA40007851	L1	MH40007149	MH40007139	ROBIN HOOD CR	600	CO	41.909	4.69	0
MA40007854	L1	MH40007190	MH40007138	HOSKIN AV	750	CO	95.1	5.07	0
MA40007861	O1	MH40007158	TE40002632	MARSDEN ST	375	CO	119.88	3.65	0
MA40007866	M1	MH40007163	MH40007164	HOSKIN AV	0	ZZZ	95.1	0.00	0
MA40007869	M1	MH40007164	MH40007190	HOSKIN AV	300	CO	95.1	2.80	0
MA40007874	M1	MH40007172	MH40007171	ADAMDELL CR	375	CO	97.23	3.79	0
MA40007879	N1	MH40007177	MH40007179	ROW	300	CO	56	1.30	0
MA40007880	N1	MH40007178	MH40007186	LONDON ST	900	CO	80.105	4.13	0
MA40007881	N1	MH40007179	MH40007178	LONDON ST	900	CO	36.085	4.14	0
MA40007883	O1	TE40002621	MH40007193	MUNROE AV	1800	CO	75.128	0.00	0
MA40007884	O1	MH40007180	TE40002621	TUDOR CR	450	CO	2.9	4.35	0
MA40007888	N1	MH40007183	MH40007229	MUNROE AV	2125	CO	158.5	5.19	0
MA40007890	N1	MH40007228	MH40007183	LONDON ST	525	CO	105.77	4.72	0
MA40007891	N1	TE40002632	MH40007183	MUNROE AV	1800	CO	154.535	0.00	0
MA40007894	N1	MH40007186	MH40007183	LONDON ST	900	CO	78.94	4.68	0
MA40007900	O1	MH40007193	TE40002632	MUNROE AV	1800	CO	6.838	0.00	0
MA40007907	L1	MH40007235	MH40007200	LINDHURST AV	2125	CO	148.465	5.30	0
MA40007910	K1	MH40007204	MH40007201	HOSKIN AV	300	CO	95.71	4.62	0
MA40007914	K9	TE40002637	MH40007210	MUNROE AV	2125	CO	5.186	0.00	5000
MA40007916	K9	MH40007219	MH40007209	GATEWAY RD	450	CO	80.949	5.53	0
MA40007917	K9	MH40007210	MH40007205	MUNROE AV	2125	CO	34.479	6.13	5000
MA40007918	K9	MH40007209	MH40007210	MUNROE AV	450	CO	20.57	5.98	5000
MA40007921	K1	MH40007217	MH40007209	MUNROE AV	250	CO	107.9	5.30	0
MA40007926	L1	MH40007250	MH40007217	MUNROE AV	250	CO	106.53	3.34	0
MA40007927	L9	MH40007240	MH40007218	MONCTON AV	450	CO	102.81	5.05	0
MA40007928	L9	MH40007218	MH40007219	MONCTON AV	450	CO	98.807	5.42	0
MA40007933	N1	MH40007226	MH40007269	MONCTON AV	450	CL	106.16	4.88	0
MA40007935	N1	MH40007223	MH40007226	MONCTON AV	450	CL	106.68	4.88	0
MA40007942	M1	MH40007229	MH40007251	MUNROE AV	2125	CO	162.148	5.60	0
MA40007943	L1	MH40007236	MH40007235	GREY ST	900	CO	15.85	5.21	0
MA40007946	L1	TE40002656	MH40007235	GREY ST	0	ZZZ	105.852	0.00	0
MA40007947	O1	MH40007279	MH40006582	GOVERNMENT AV	300	CO	102.72	0.00	0
MA40007948	M9	MH40007264	MH40007295	GOVERNMENT AV	300	CO	91.59	5.45	0
MA40007949	L1	MH40007239	MH40007240	MONCTON AV	450	CO	101.65	5.19	0
MA40007952	M1	MH40007295	MH40007239	GREY ST	750	CO	80.795	5.28	0
MA40007955	M1	MH40007273	MH40007239	MONCTON AV	450	CL	109.542	5.18	0
MA40007960	L1	MH40007259	MH40007250	MUNROE AV	250	CO	108.706	3.20	0
MA40007961	M1	TE40002657	TE40002656	GREY ST	2125	CO	2.186	0.00	0
MA40007962	M1	MH40007239	TE40002657	GREY ST	900	CO	89.652	5.37	0
MA40007963	M1	MH40007251	TE40002657	GREY ST	2125	CO	1.2	5.47	0
MA40007981	M1	MH40007269	MH40007273	MONCTON AV	450	CL	107.26	4.81	0
MA40007982	N1	MH40007286	MH40007270	GOVERNMENT AV	300	CO	100.58	2.92	0
MA40007983	N1	MH40007270	MH40007297	GOVERNMENT AV	300	CO	103.63	3.14	0
MA40007993	O1	MH40007280	MH40007279	GOVERNMENT AV	300	CO	103.02	3.05	0

SORTED BY: DISTRICT, FLOW TYPE, ASSET

ASSET	MAP KEY	US NODE	DS NODE	STREET	SIZE	MATERIAL	LENGTH	MAX DEPTH	TRAFFIC COUNT
MA40007997	N1	MH40007322	MH40007292	LONDON ST	525	CO	81.59	2.86	0
MA40007998	O1	MH40007285	MH40007281	PRINCE RUPERT AV	300	CO	97.23	3.41	0
MA40008011	N1	MH40007292	MH40007228	LONDON ST	525	CO	72.687	3.47	0
MA40008013	M9	MH40007308	MH40007295	GREY ST	750	CO	81.091	5.02	0
MA40008014	M1	MH40007297	MH40007295	GOVERNMENT AV	300	CO	103.63	5.42	0
MA40008015	N9	MH40007325	MH40007309	PRINCE RUPERT AV	300	CO	100.73	3.33	0
MA40008027	M9	MH40007309	MH40007308	PRINCE RUPERT AV	300	CO	102.26	4.21	0
MA40008033	N9	MH40007315	MH40007314	FLEMING AV	300	CO	107.117	3.67	0
MA40008041	N1	MH40007316	MH40007325	PRINCE RUPERT AV	300	CO	100.58	3.25	0
MA40008145	F9	MH40007450	MH40007418	BOWMAN AV	450	CO	105.4	4.59	0
MA40008149	F1	MH40007452	MH40007416	LARSEN AV	300	CO	103.94	4.57	0
MA40008152	E9	MH40007416	MH40007417	LARSEN AV	300	CO	12.178	5.57	0
MA40008153	E9	MH40007419	MH40007417	LARSEN AV	300	CO	12.368	5.57	0
MA40008186	F9	MH40007704	MH40007450	BOWMAN AV	375	CO	105.92	4.18	0
MA40008188	F1	MH40007441	MH40007452	LARSEN AV	300	CO	103.94	3.59	0
MA40008194	G1	MH40007473	MH40007441	LARSEN AV	300	CO	96.32	2.94	0
MA40008213	G1	MH40007476	MH40007603	WATT ST	300	CO	34.931	5.60	10000
MA40008357	G1	MH40007650	MH40007603	LARSEN AV	450	CO	104.212	5.60	0
MA40008360	G1	MH40007603	MH40007590	WATT ST	450	CO	2.625	5.63	10000
MA40008361	G1	MH40007590	MH40007699	WATT ST	450	CO	78.14	5.63	10000
MA40008386	J1	MH40007630	MH40007629	GATEWAY RD	300	CO	37.19	3.18	0
MA40008389	J1	MH40007634	MH40007641	NOTTINGHAM AV	300	CO	89.92	3.46	0
MA40008394	J1	MH40007629	MH40007639	GATEWAY RD	300	CO	9.325	3.41	0
MA40008395	J1	MH40007639	MH40007687	GATEWAY RD	300	CO	96.135	4.16	0
MA40008408	H1	MH40007668	MH40007724	BOWMAN AV	300	CO	82.841	2.61	0
MA40008409	G1	MH40007672	MH40007650	LARSEN AV	450	CO	100.742	4.57	0
MA40008428	H1	MH40007665	MH40007720	JAMISON AV	300	CO	93.79	3.52	0
MA40008430	H1	MH40007667	MH40007668	BOWMAN AV	300	CO	83.611	2.33	0
MA40008442	I1	MH40007684	MH40007727	WASHINGTON AV	450	CO	96.93	5.88	0
MA40008443	J1	MH40007685	MH40007684	WASHINGTON AV	450	CO	97.6	6.00	0
MA40008444	J1	MH40007687	MH40006896	GATEWAY RD	375	CO	104.567	4.16	0
MA40008450	G1	MH40007699	MH40007712	WATT ST	250X500	CO	82.265	5.76	10000
MA40008460	G1	MH40007699	MH40007704	BOWMAN AV	375	CO	108.942	3.78	0
MA40008463	G9	MH40007700	MH40007707	JAMISON AV	300	CO	100.25	2.66	0
MA40008466	G1	MH40007724	MH40007699	BOWMAN AV	300	CO	83.631	3.55	0
MA40008467	G1	MH40007736	MH40007712	JAMISON AV	300	CO	106.991	5.61	0
MA40008470	I1	MH40007727	MH40007713	WASHINGTON AV	450	CO	96.413	5.88	0
MA40008471	I1	MH40007713	MH40007728	WASHINGTON AV	450	CO	107.9	5.75	0
MA40008480	H1	MH40007720	MH40007736	JAMISON AV	300	CO	108.52	4.00	0
MA40008485	I9	MH40007742	MH40007741	OTTAWA AV	300	CO	105.861	3.30	0
MA40008490	H9	MH40007728	MH40007729	WASHINGTON AV	450	CO	107.35	5.79	0
MA40008491	H9	MH40007729	MH40003115	WASHINGTON AV	450	CO	97.29	6.19	0
MA40008941	E9	MH40008141	MH40007419	LARSEN AV	300	CO	89.3	4.42	0
MA40008972	K1	MH40007200	TE40002554	LINDHURST AV	2125	CO	150.579	4.69	0
MA40008973	K1	TE40002554	TE40002553	GATEWAY RD	2125	CO	10.375	0.00	0
MA40008976	R1	MH40006688	MH40006641	MUNROE AV	1500	CO	126.822	5.43	0
MA40008977	Q1	MH40006641	TE40002352	MUNROE AV	1525	CO	196.128	5.43	0
MA40008978	Q1	MH40006644	MH40006646	KEENLEYSIDE ST	750	CO	46.936	4.00	0
MA40008979	Q1	MH40006646	MH40009581	KEENLEYSIDE ST	1200	CO	85.327	4.57	0
MA40010379	P1	MH40009369	MH40009466	PIKE CR	300	CO	72.717	2.79	0
MA40010380	P1	MH40009369	MH40009370	PIKE CR	300	CO	29.112	2.77	0
MA40010487	P1	MH40009466	MH40009480	LOWERY BY	375	CO	104.168	3.11	0

SORTED BY: DISTRICT, FLOW TYPE, ASSET

ASSET	MAP KEY	US NODE	DS NODE	STREET	SIZE	MATERIAL	LENGTH	MAX DEPTH	TRAFFIC COUNT
MA40010488	P1	MH40009466	MH40009481	PIKE CR	300	CO	66.679	2.77	0
MA40010501	Q1	MH40009480	MH40009528	LOWERY BY	375	CO	71.929	3.21	0
MA40010502	P1	MH40009481	MH40009529	PIKE CR	300	CO	65	2.87	0
MA40010551	Q1	MH40009526	MH40009582	GEORGE SUTTIE BY	300	CO	85.325	3.25	0
MA40010553	Q1	MH40009526	MH40009589	GEORGE SUTTIE BY	300	CO	95.4	3.53	0
MA40010554	Q1	MH40009529	MH40009528	PIKE CR	375	CO	85.328	3.05	0
MA40010603	Q1	MH40009582	MH40009583	PREVETTE ST	375	CO	83.82	3.76	0
MA40010604	R1	MH40009583	MH40009638	PREVETTE ST	450	CO	91.44	4.31	0
MA40010606	Q1	MH40009581	TE40003519	KEENLEYSIDE ST	1200	CO	9.235	4.57	0
MA40010607	R1	TE40003519	MH40009637	KEENLEYSIDE ST	750	CO	74.294	4.68	0
MA40010608	R1	MH40009612	MH40009582	GEORGE SUTTIE BY	300	CO	85.326	3.25	0
MA40010615	Q1	MH40009589	MH40009581	GEORGE SUTTIE BY	375	CO	96.598	4.08	0
MA40010623	S1	MH40009599	MH40009600	KEENLEYSIDE ST	375	CO	57.94	3.68	0
MA40010624	R1	MH40009600	MH40009598	KEENLEYSIDE ST	525	CO	80.77	3.82	0
MA40010633	R1	MH40009598	MH40009637	KEENLEYSIDE ST	750	CO	87.129	4.32	0
MA40010634	R1	MH40009611	MH40009598	GEORGE SUTTIE BY	600	CO	128.279	4.07	0
MA40010635	R1	MH40009610	MH40009611	ROW	525	CO	51.814	2.86	0
MA40010636	R1	MH40009612	MH40009611	GEORGE SUTTIE BY	300	CO	63.7	3.35	0
MA40010654	R1	MH40009637	MH40009632	PREVETTE ST	450	CO	6	4.68	0
MA40010658	R1	MH40009638	MH40009637	PREVETTE ST	450	CO	16.825	4.34	0
MA40014756	F7	MH40004456	TE40001365	ROCH ST	900	CO	15.004	6.07	5000
MA70004312	D6	MH70001918	MH40004922	WINTERTON AV	375	CO	59.82	5.72	0
MA70004313	D7	MH40004943	MH70001918	WINTERTON AV	375	CO	86.086	5.72	0
MA70009701	P1	MH40009370	MH70003804	KEENLEYSIDE ST	600	CO	39.229	3.62	0
MA70009702	P1	MH70003804	MH40006484	KEENLEYSIDE ST	600	CO	38.761	3.72	0
MA70009720	O1	MH70003816	MH40009370	KEENLEYSIDE ST	525	ZZZ	26.742	3.22	0
MA70009761	S1	MH70003831	MH40006680	MUNROE AV	500	CO	109.55	4.30	0
MA70017194	D6	MH40004942	MH40004917	MUNROE AV	2050X3075	CO	154.351	8.05	5000
MA70024483	H8	MH40004472	TE40001376	MUNROE AV	1950X2925	CO	4.898	0.00	5000
MA70024484	H8	TE40001376	TE70011439	MUNROE AV	1950X2925	CO	2.16	0.00	5000
MA70024485	H8	TE70011439	TE40001370	MUNROE AV	1950X2925	CO	2.078	0.00	5000
MA70024486	I6	MH40004555	MH40004570	SYDNEY AV	300	CO	96.417	3.95	0
MA70024489	I6	MH40004587	MH40004577	MELBOURNE AV	375	CO	90.968	2.89	0
MA70028365	T1	MH40006822	MH40006826	ROW	450	CO	69.214	0.00	0
MA70031578	C6	MH40004922	TE40001634	HENDERSON HW	825	CO	73.61	0.00	20000
MA70031622	P1	MH40006556	MH40006555	ROW	600	CO	83.72	4.99	0
MA70036781	O1	MH40006588	TE70016982	MONCTON AV	450	CO	24.34	4.80	0
MA70036782	O1	TE70016982	MH40007223	MONCTON AV	450	CO	82.98	2.43	0
MA70036783	P1	MH40006573	TE70016983	BESANT ST	600	CO	40.39	5.05	0
MA70036784	P1	TE70016983	MH40006593	BESANT ST	600	CO	40.37	4.96	0
MUNROE									
WWS									
MA40004591	N8	MH40004157	MH40004168	GREY ST	300	AC	102.596	3.53	0
MA40007458	R1	MH40006840	MH40006788	LOUELDA ST	375	AC	100.957	3.25	0
MA40007499	T1	MH40006829	MH40006828	MONCTON AV	300	AC	52.43	3.14	0
MA70009756	S1	MH70003832	MH70003831	MUNROE AV	250	PVC	36	4.02	0
MA70009757	T1	MH70003833	MH70003832	PANET RD	250	PVC	123.07	3.84	0
MA70009758	T1	MH70003834	MH70003833	PANET RD	250	PVC	119.833	3.59	0

SORTED BY: DISTRICT, FLOW TYPE, ASSET

ASSET	MAP KEY	US NODE	DS NODE	STREET	SIZE	MATERIAL	LENGTH	MAX DEPTH	TRAFFIC COUNT
MUNROE ANNEX									
CS									
MA40004294	J5	MH40003934	MH40003902	KIMBERLY AV	300	CO	121.31	4.67	0
MA40004295	K4	MH40003956	MH40003903	HELMSDALE AV	375	CO	119.79	3.62	0
MA40004296	J5	MH40003903	MH40003902	WATT ST	975	CO	105.066	4.82	0
MA40004304	J5	MH40003908	MH40004645	BRONX AV	375	CO	119.79	4.87	0
MA40004334	J4	MH40005592	MH40003903	WATT ST	900	CO	103.902	0.00	0
MA40004335	K5	MH40003957	MH40003934	KIMBERLY AV	300	CO	120	0.00	0
MA40004342	L5	MH40004069	MH40003957	KIMBERLY AV	300	CO	119.79	0.00	0
MA40004350	K6	MH40004058	MH40003947	BRONX AV	300	CO	119.79	3.47	0
MA40004351	K6	MH40004056	MH40003948	CHELSEA AV	300	CO	119.78	0.00	0
MA40004357	K5	MH40004065	MH40003956	HELMSDALE AV	300	CO	120.09	3.62	0
MA40004364	K4	MH40004066	MH40003955	DUNROBIN AV	300	CO	120.09	3.95	0
MA40004470	L6	MH40004057	TE40001210	GOLSPIE ST	900	CO	59.665	5.31	0
MA40004474	K6	MH40004052	MH40004055	GOLSPIE ST	900	CO	26.15	5.04	0
MA40004484	L5	MH40004064	MH40004065	HELMSDALE AV	300	CO	119.79	3.05	0
MA40004485	L4	MH40004117	MH40004066	DUNROBIN AV	300	CO	119.79	3.55	0
MA40004505	L4	MH40004137	MH40005649	OAKVIEW AV	300	CO	119.79	2.62	0
MA40004559	M4	MH40005665	MH40004116	GOLSPIE ST	750	CO	82.952	4.95	0
MA40004611	M7	MH40004194	MH40004183	GATEWAY RD	300	CO	97.522	2.51	0
MA40004633	N7	MH40004203	MH40004206	BRONX AV	250	AC	16.926	3.11	0
MA40005060	J6	MH40003909	MH40004601	CHELSEA AV	375	CO	120.677	0.00	0
MA40005062	I5	MH40004637	MH40004601	CHELSEA AV	375	CO	119.79	4.06	0
MA40005070	J6	TE40001450	MH40004605	WATT ST	1125	MH	1.937	0.00	0
MA40005101	I5	MH40004682	MH40004637	CHELSEA AV	300	CO	120.05	4.06	0
MA40005107	J5	MH40003902	MH40004645	WATT ST	1050	CO	92.13	5.02	0
MA40005131	H5	MH40004682	MH40004666	CHELSEA AV	300	CO	131.972	3.77	0
MA40005132	H4	MH40005951	MH40004668	ROCH ST	300	CO	92.05	3.56	0
MA40005133	H5	MH40004668	MH40004666	ROCH ST	300	CO	94.498	4.04	0
MA40005147	J5	MH40004680	MH40003902	KIMBERLY AV	375	CO	120.4	4.67	0
MA40005148	I4	MH40004681	MH40004680	KIMBERLY AV	300	CO	131.02	3.95	0
MA40005149	I4	MH40005951	MH40004681	KIMBERLY AV	300	CO	120.4	3.44	0
MA40005163	J4	MH40005956	MH40003903	HELMSDALE AV	375	CO	124.05	0.00	0
MA40005826	O4	PL40001870	MH40005300	RALEIGH ST	300	CO	31	0.00	0
MA40005828	O4	PL40001742	MH40005300	RALEIGH ST	300	CO	32	0.00	0
MA40006112	K3	MH40005576	MH40005638	HAZEL DELL AV	375	CO	119.79	0.00	0
MA40006116	K3	MH40005631	MH40005578	OAKVIEW AV	300	CO	124.05	0.00	0
MA40006119	J4	MH40005957	MH40005592	DUNROBIN AV	375	CO	119.79	0.00	0
MA40006122	J3	MH40006019	MH40005576	HAZEL DELL AV	300	CO	120.09	0.00	0
MA40006130	K4	MH40003955	MH40005592	DUNROBIN AV	375	CO	119.79	3.94	0
MA40006131	K4	MH40005631	MH40005592	WATT ST	825	CO	81.315	0.00	0
MA40006133	K3	MH40005594	MH40005628	LINDEN AV	375	CO	123.614	0.00	0
MA40006134	J2	MH40006073	MH40005594	LINDEN AV	300	CO	123.75	0.00	0
MA40006158	K2	MH40005615	MH40005754	GREENE AV	300	CO	120.09	3.66	0
MA40006159	K2	MH40005616	MH40005755	ROBERTA AV	300	CO	123.75	2.89	0
MA40006172	K1	MH40005617	MH40005756	LEIGHTON AV	300	CO	120.09	2.85	0
MA40006173	J1	MH40006213	MH40005617	LEIGHTON AV	300	CO	119.79	0.00	0
MA40006175	K3	MH40005782	MH40005628	WATT ST	600	CO	81.054	4.03	0
MA40006176	K3	MH40005717	MH40005628	LINDEN AV	375	CO	119.79	0.00	0
MA40006180	K4	MH40005656	MH40005631	OAKVIEW AV	300	CO	119.79	0.00	0
MA40006187	K3	MH40005628	MH40005638	WATT ST	750	CO	83.161	0.00	0

SORTED BY: DISTRICT, FLOW TYPE, ASSET

ASSET	MAP KEY	US NODE	DS NODE	STREET	SIZE	MATERIAL	LENGTH	MAX DEPTH	TRAFFIC COUNT
MA40006188	K3	MH40005638	MH40005631	WATT ST	825	CO	81.035	0.00	0
MA40006189	K3	MH40005706	MH40005638	HAZEL DELL AV	375	CO	120.09	0.00	0
MA40006198	M3	MH40005722	MH40005648	GOLSPIE ST	600	CO	81.029	4.37	0
MA40006201	L4	MH40005650	MH40005651	HAZEL DELL AV	300	CO	118.87	2.76	0
MA40006205	L3	MH40005651	MH40005706	HAZEL DELL AV	300	CO	119.79	0.00	0
MA40006207	L4	MH40005649	MH40005656	OAKVIEW AV	300	CO	120.09	0.00	0
MA40006215	M4	MH40005683	MH40005648	LINDEN AV	450	CO	106.98	4.38	0
MA40006216	M4	MH40005648	MH40005665	GOLSPIE ST	750	CO	80.92	4.53	0
MA40006220	L3	MH40005647	MH40005716	LINDEN AV	300	CO	119.48	2.42	0
MA40006222	N4	MH40005671	MH40005697	GREENE AV	375	CO	106.68	3.55	0
MA40006223	O4	MH40004275	MH40005671	GREENE AV	300	CO	112.78	3.28	0
MA40006225	O4	MH40005300	MH40005696	ROBERTA AV	300	ZZZ	114.09	2.94	0
MA40006236	N4	MH70013554	MH40005683	LINDEN AV	375	CO	106.98	3.76	0
MA40006249	N3	MH40005696	MH40005744	ROBERTA AV	375	ZZZ	114.09	3.39	0
MA40006250	N3	MH40005697	MH40005746	GREENE AV	375	CO	106.68	3.55	0
MA40006255	L3	MH40005719	MH40005763	GREENE AV	300	CO	119.79	3.45	0
MA40006268	L3	MH40005716	MH40005717	LINDEN AV	300	CO	120.09	0.00	0
MA40006270	M3	MH40005720	MH40005719	GREENE AV	300	CO	119.18	3.06	0
MA40006271	M3	MH40005777	MH40005721	ROBERTA AV	450	ZZZ	88.39	3.72	0
MA40006272	M3	MH40005745	MH40005721	ROBERTA AV	450	ZZZ	114.09	4.12	0
MA40006273	M3	MH40005746	MH40005722	GREENE AV	450	CO	106.68	4.03	0
MA40006274	M3	MH40005721	MH40005722	GOLSPIE ST	600	CO	80.872	4.03	0
MA40006295	N3	MH40005744	MH40005745	ROBERTA AV	375	ZZZ	114.193	4.12	0
MA40006296	K1	MH40005756	MH40005795	LEIGHTON AV	300	CO	119.79	3.34	0
MA40006303	K2	MH40005754	MH40005782	GREENE AV	375	CO	119.78	4.09	0
MA40006304	K2	MH40005755	MH40005787	ROBERTA AV	375	CO	124.05	3.49	0
MA40006319	L2	MH40005775	MH40005776	ROBERTA AV	300	CO	88.39	3.40	0
MA40006320	M2	MH40005776	MH40005777	ROBERTA AV	375	ZZZ	88.172	3.60	0
MA40006329	L2	MH40005763	MH40005782	GREENE AV	375	CO	119.78	3.93	0
MA40006330	L2	MH40005775	MH40005787	ROBERTA AV	300	CO	102.11	3.40	0
MA40006331	K2	MH40005787	MH40005782	WATT ST	450	CO	80.905	4.03	0
MA40006335	L2	MH40005795	MH40005787	WATT ST	375	CO	80.922	3.70	0
MA40006497	J4	MH40005941	MH40005956	HELMSDALE AV	300	CO	123.839	0.00	0
MA40006500	I4	MH40005973	MH40005941	HELMSDALE AV	300	CO	124.05	0.00	0
MA40006514	J3	MH40005984	MH40005957	DUNROBIN AV	375	CO	120.09	0.00	0
MA40006529	I3	MH40006041	MH40005984	DUNROBIN AV	300	CO	119.79	0.00	0
MA40006548	J3	MH40005578	MH40006020	OAKVIEW AV	300	CO	123.75	0.00	0
MA40006583	J2	MH40006044	MH40006019	HAZEL DELL AV	300	CO	89.918	0.00	0
MA40006588	I3	PL40002029	MH40006027	ROCH ST	300	CO	28.7	0.00	0
MA40006589	I3	MH40006020	MH40006027	OAKVIEW AV	300	CO	124.05	3.17	0
MA40006603	I3	PL40002026	MH40006027	ROCH ST	300	CO	27.7	0.00	0
MA40006607	I2	MH40006070	MH40006044	HAZEL DELL AV	300	CO	29.872	2.81	0
MA40006632	I2	PL40002034	MH40006068	ROCH ST	300	CO	62.5	0.00	0
MA40006633	J2	MH40006068	MH40006073	LINDEN AV	300	CO	124.05	5.13	0
MA40006718	I2	PL40002085	MH40006068	ROCH ST	300	CO	21.6	0.00	0
MA40006719	J2	MH40006151	MH40005615	GREENE AV	300	CO	119.79	3.31	0
MA40006748	J1	MH40006178	MH40005616	ROBERTA AV	300	CO	124.05	2.09	0
MA40007004	J5	MH40004645	TE40001450	WATT ST	1125	CO	85.705	5.02	0
MA40007005	J6	TE40001450	MH40004601	WATT ST	1125	CO	8.79	0.00	0
MA40014780	K6	TE40004981	MH40004052	GOLSPIE ST	900	CO	8.692	0.00	0
MA70004335	K6	MH40003948	MH70001925	CHELSEA AV	300	CO	3.543	0.00	0
MA70004336	K6	MH70001925	MH70001926	CHELSEA AV	300	CO	114.3	0.00	0

SORTED BY: DISTRICT, FLOW TYPE, ASSET

ASSET	MAP KEY	US NODE	DS NODE	STREET	SIZE	MATERIAL	LENGTH	MAX DEPTH	TRAFFIC COUNT
MA70004337	J6	MH70001926	MH40003909	CHELSEA AV	300	CO	2.739	0.00	0
MA70011446	K6	MH40003947	MH40003908	BRONX AV	300	CO	63.391	0.00	0
MA70023227	N6	MH70008234	MH40004196	GATEWAY RD	375	PVC	118.89	3.61	0
MA70032074	M7	MH40004193	MH40004194	GATEWAY RD	300	CO	94.18	3.75	0
MA70035001	N4	MH70013134	MH70013135	LINDEN AV	300	CO	106.07	3.23	0
MA70035481	N4	MH70013135	MH70013554	LINDEN AV	375	CO	105.77	3.23	0
MA70036766	N6	MH40004196	MH40004193	KIMBERLY AV	375	PVC	1.03	4.03	0
MUNROE ANNEX									
WWS									
MA40003394	T9	MH40006508	MH40003359	SNOWDON AV	200	AC	47.5	0.00	0
MA40003396	U9	MH40003396	MH40006522	RUDOLPH BY	200	CO	99.06	2.89	0
MA40003401	R9	MH40003649	MH40006851	RIZER CR	250	CO	142.734	3.17	0
MA40003402	S9	MH40006860	MH40003669	OAK PARK WK	250	CO	30.798	3.28	0
MA40003702	T9	MH40003395	MH40006507	RUDOLPH BY	200	CO	69.49	3.36	0
MA40003744	U9	MH40003389	MH40003395	RUDOLPH BY	200	CO	46.388	3.52	0
MA40003745	U9	MH40003390	MH40003389	RUDOLPH BY	200	AC	72.454	3.29	0
MA40003976	O6	MH40004248	MH40003616	DOWHAN CR	250	PVC	83.211	3.08	0
MA40003977	O6	MH40003617	MH40003632	DOWHAN CR	250	PVC	49.59	2.83	0
MA40003995	O6	MH40003616	MH40003734	ROW	250	PVC	35.921	0.00	0
MA40003998	O6	MH40003632	MH40003616	DOWHAN CR	250	PVC	40.994	3.13	0
MA40004006	Q8	MH40003645	MH40003646	ROW	250	CO	93.57	0.00	0
MA40004007	Q9	MH40003646	MH40003647	ROW	250	CO	94.49	0.00	0
MA40004023	S8	MH40003683	MH40003698	GREEN VALLEY BY	250	AC	121.01	3.78	0
MA40004024	R9	MH40003655	MH40003650	KIMBERLY AV	250	CO	123.644	2.96	0
MA40004025	R8	MH40003656	MH40003655	KIMBERLY AV	250	CO	119.91	2.82	0
MA40004026	R9	MH40003656	MH40003657	RIZER CR	250	CO	78.126	2.57	0
MA40004027	R9	MH40003657	MH40003649	RIZER CR	250	CO	92.99	3.17	0
MA40004028	R8	PL40001084	MH40003656	KIMBERLY AV	250	CO	7.001	2.55	0
MA40004033	S9	MH40003677	MH40003650	LOUELDA ST	250	AC	67.869	3.06	0
MA40004034	S9	MH40003103	MH40003650	KIMBERLY AV	250	CO	73.894	3.29	0
MA40004035	S9	MH40003650	MH40006850	LOUELDA ST	350	AC	60.811	3.44	0
MA40004036	T9	MH40003359	MH40003660	SNOWDON AV	250	AC	62.193	3.89	0
MA40004042	T9	MH40003667	MH40003675	SNOWDON AV	250	AC	103.63	4.02	0
MA40004043	T9	MH40003660	MH40003667	SNOWDON AV	250	AC	30.069	3.89	0
MA40004044	S9	MH40003668	MH40003103	OAK PARK WK	250	CO	40.135	3.51	0
MA40004045	S9	MH40003669	MH40003668	OAK PARK WK	250	CO	76.637	3.51	0
MA40004046	T8	MH40003674	MH40003711	TREGER BY	200	AC	91.404	4.33	0
MA40004047	T8	MH40003712	MH40003674	TREGER BY	200	AC	22.86	3.79	0
MA40004048	S8	MH40003675	MH40003711	SNOWDON AV	250	AC	85.317	4.33	0
MA40004049	S9	MH40003678	MH40003676	LOUELDA ST	150	PVC	7.086	6.63	0
MA40004050	S9	MH40003678	MH40003676	LOUELDA ST	150	PVC	7.488	3.22	0
MA40004052	S9	MH40003679	MH40003678	LOUELDA ST	250	AC	3.99	4.42	0
MA40004053	S9	MH40003680	MH40003679	LOUELDA ST	250	PVC	4.001	4.37	0
MA40004054	S8	MH40003681	MH40003680	LOUELDA ST	250	PVC	4.406	4.47	0
MA40004055	S8	MH40003682	MH40003681	LOUELDA ST	250	AC	24.6	4.56	0
MA40004058	S8	MH40003708	MH40003682	LOUELDA ST	250	AC	99.8	4.06	0
MA40004066	S8	MH40003695	MH40003714	GREEN VALLEY BY	250	AC	68.746	4.08	0
MA40004067	R8	MH40003698	MH40003695	GREEN VALLEY BY	250	AC	98.689	4.08	0
MA40004070	R8	MH40003699	MH40003698	GREEN VALLEY BY	250	AC	41.196	3.74	0
MA40004085	S8	MH40003711	MH40003708	TREGER BY	250	AC	77.439	4.33	0
MA40004086	S8	MH40003714	MH40003708	GREEN VALLEY BY	250	AC	77.339	4.00	0

SORTED BY: DISTRICT, FLOW TYPE, ASSET

ASSET	MAP KEY	US NODE	DS NODE	STREET	SIZE	MATERIAL	LENGTH	MAX DEPTH	TRAFFIC COUNT
MA40004121	P6	MH40003734	MH40003746	ROW	250	PVC	64.6	0.00	0
MA40004476	L6	MH40004070	MH40004057	GOLSPIE ST	900	CO	92.14	5.31	0
MA40004488	L5	MH40004114	MH40004070	GOLSPIE ST	750	CO	105.188	5.20	0
MA40004489	L6	MH40004113	MH40004070	KIMBERLY AV	450	CO	106.68	4.90	0
MA40004507	M7	MH40004093	MH40004191	RALEIGH ST	250	PVC	75	3.05	0
MA40004532	M6	MH40004185	MH40004113	KIMBERLY AV	375	CO	109.73	0.00	0
MA40004533	M5	MH40004184	MH40004105	HELMSDALE AV	375	CO	113.26	4.75	0
MA40004534	L5	MH40004107	MH40004114	GOLSPIE ST	750	CO	103.93	5.24	0
MA40004535	L5	MH40004105	MH40004114	HELMSDALE AV	450	CO	115.76	5.04	0
MA40004536	M5	MH40004177	MH40004106	DUNROBIN AV	300	CO	92.66	4.34	0
MA40004537	L5	MH40004106	MH40004107	DUNROBIN AV	300	CO	91.44	5.09	0
MA40004538	L4	MH40004116	MH40004107	GOLSPIE ST	750	CO	81.69	5.24	0
MA40004579	N7	MH40004206	MH40004157	GREY ST	300	AC	87.375	3.01	0
MA40004580	N7	MH40004172	MH40004203	BRONX AV	250	AC	85.906	3.36	0
MA40004582	O8	MH40004159	MH40004173	HERSHEY ST	250	AC	68.585	2.48	0
MA40004583	O8	MH40004160	MH40004159	HERSHEY ST	250	AC	16.908	2.48	0
MA40004595	O7	MH40004171	MH40004173	HERSHEY ST	250	AC	29.305	2.31	0
MA40004596	O7	MH40004214	MH40004171	HERSHEY ST	250	AC	38.95	2.31	0
MA40004597	O7	MH40004173	MH40004172	BRONX AV	250	AC	83.09	3.36	0
MA40004600	M5	MH40004223	MH40004177	DUNROBIN AV	300	CO	90.83	4.08	0
MA40004609	M6	MH40004182	MH40004229	RALEIGH ST	250	CO	21.6	0.00	0
MA40004610	M6	MH40004191	MH40004182	RALEIGH ST	250	CO	85	3.05	0
MA40004612	M6	MH40004228	MH40004184	HELMSDALE AV	300	CO	107.29	0.00	0
MA40004613	M6	MH40004229	MH40004185	KIMBERLY AV	300	CO	108.2	0.00	0
MA40004621	N7	MH40004195	MH40004204	BRONX AV	250	AC	58	0.00	0
MA40004622	M6	MH40004196	MH40004229	KIMBERLY AV	375	CO	54.008	3.55	0
MA40004634	N7	MH40004204	MH40004206	BRONX AV	250	AC	60	0.00	0
MA40004635	N7	MH40004205	MH40004206	GREY ST	300	AC	96.191	3.10	0
MA40004636	N7	MH40004212	MH40004205	KIMBERLY AV	250	AC	68.63	2.95	0
MA40004637	N7	MH40004207	MH40004205	KIMBERLY AV	250	AC	72.97	3.12	0
MA40004640	O7	MH40003628	MH40004212	KIMBERLY AV	250	AC	106.4	2.53	0
MA40004650	N5	MH40004265	MH40004223	DUNROBIN AV	300	CO	93.88	3.97	0
MA40004663	N6	MH40004251	MH40004242	BLANTYRE AV	250	PVC	34.1	2.49	0
MA40004664	N6	MH40004242	MH40004243	BLANTYRE AV	250	PVC	13.74	2.57	0
MA40004665	N6	MH40004250	MH40004243	DOWHAN CR	250	PVC	49.1	2.71	0
MA40004670	O6	MH40004249	MH40004248	DOWHAN CR	250	PVC	74.529	2.87	0
MA40004671	O6	MH40004250	MH40004249	DOWHAN CR	250	PVC	50.952	2.87	0
MA40004674	O6	MH40004209	MH40004248	NATHAN LN	250	PVC	88.326	2.83	0
MA40007138	U1	MH40006520	MH40006506	KIMBERLY AV	250	AC	74.68	4.10	0
MA40007139	T1	MH40006506	MH40006509	KIMBERLY AV	250	AC	85.34	4.07	0
MA40007140	T9	MH40006507	MH40006508	SNOWDON AV	200	AC	5.872	3.23	0
MA40007141	U9	MH40006521	MH40006507	SNOWDON AV	200	AC	89.027	3.23	0
MA40007151	U9	MH40006522	MH40006521	RUDOLPH BY	200	AC	16.757	2.92	0
MA40007152	U9	MH40006523	MH40006521	RUDOLPH BY	200	CO	16.297	3.50	0
MA40007153	U9	MH40006524	MH40006523	SNOWDON AV	200	CO	53.19	3.50	0
MA40007154	U9	MH40006525	MH40006521	SNOWDON AV	200	AC	30.48	2.09	0
MA40007498	S1	MH40006856	MH40006829	CONCORDIA AV	300	AC	65.53	2.77	0
MA40007509	R9	MH40006851	MH40006839	LOUELDA ST	375	AC	65.465	2.90	0
MA40007510	R1	MH40006839	MH40006840	LOUELDA ST	375	AC	41.716	3.25	0
MA40007518	S9	MH40006850	MH40006851	LOUELDA ST	350	AC	21.208	0.00	0
MA40007519	T9	MH40006509	MH40006855	KIMBERLY AV	250	AC	85.04	4.06	0
MA40007520	T9	MH40006853	MH40006854	KULLMAN ST	250	CO	10.503	4.05	0

WORKPROGRAM

SORTED BY: DISTRICT, FLOW TYPE, ASSET

ASSET	MAP KEY	US NODE	DS NODE	STREET	SIZE	MATERIAL	LENGTH	MAX DEPTH	TRAFFIC COUNT
MA40007521	T9	MH40006854	MH40006855	KULLMAN ST	250	CO	49.04	3.65	0
MA40007522	T1	MH40006855	MH40006857	ROW	250	AC	106.258	3.93	0
MA40007523	S1	MH40006857	MH40006856	ROW	300	AC	103.63	0.00	0
MA70023225	N6	MH40004264	MH70008234	GATEWAY RD	300	CO	134.854	0.00	0
MA70031572	S9	MH40003679	MH40003677	LOUELDA ST	250	PVC	6.45	4.59	0
MA70036082	N6	MH40004243	MH70008234	BLANTYRE AV	250	PVC	47.55	2.60	0