



The City of Winnipeg

Request for Qualifications
for the Supply and Installation of
Cured-In-Place Pipe (CIPP)

Bid Opportunity No. 403-2007

Prepared for: Water and Waste Department

Prepared by: UMA Engineering Ltd.

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PART B

SUBMISSION PROCEDURES

B1. Project Title:

1.1 Request for Qualifications for the Supply and Installation of Cured-In-Place Pipe (CIPP).

B2. Definitions:

2.1 When used in this Qualification Package:

- (a) "Resin" means the polyester or vinyl ester resin(s) specifically designed and tested for Liner Systems. The Resin manufacturer may provide technical advice related to the Liner System design and installation. The Resin manufacturer may be involved in Liner System material testing.
- (b) "Tube" means the fabric tube designed to reinforce and/or carry and contain the Resin until it is cured. The Tube manufacturer manufactures or purchases the fabric and cuts and seams the layers of fabric. The Tube manufacturer supplies finished tubes to the Supplier or Installer, and may provide technical advice related to the Liner System design and installation.
- (c) "CIPP" means the rehabilitation of sewers by installation of a Cured-In-Place Pipe Liner System within the existing pipe. The Liner System shall be pulled-in-place or installed by inversion using hydrostatic head or air pressure and the resin shall be cured by hot water, steam or ultraviolet light. Once cured, the Liner System shall form a tight fitting and continuous pipe within the existing host pipe.
- (d) "Liner System" means CIPP consisting of an engineered product (Tube and Resin). Liner System design shall be performed by the Supplier and/or Installer, with specific input from the Resin and Tube manufacturers related to the limitations and proper application of their products.
- (e) "Applicant" means Supplier, Installer, or Other Party submitting this Qualification Package for the purpose of qualifying a Supplier and Installer for CIPP Sewer Rehabilitation in the City of Winnipeg in 2007.
- (f) "Supplier" means provider of the Liner System. The Supplier may be a third party or the Installer.
- (g) "Installer" means installer of the Liner System. The Installer may secure a Liner System from a Supplier or they may design their own Liner System and secure the components directly from the Resin and Tube manufacturers. An Installer shall be a registered company. The Installer shall have in their employ, either as a direct employee or as a specialist sub-contractor, a Designer, a Project Manager, and a Site Superintendent, satisfying the experience requirements specified herein.

B3. Intent of Qualification:

- 3.1 The intent of this submission is to provide the City with sufficient information to qualify Supplier's and Installer's of CIPP to perform sewer rehabilitation by trenchless methods, within the City of Winnipeg, in 2007.
- 3.2 Applicants wishing to be qualified as Supplier's and/or Installer's of Liner System(s), for use on 2007 Combined Sewer Rehabilitation within the City, shall complete this "Request for Qualifications" document. Additional information may be submitted to demonstrate this more fully.
- 3.3 Applicants pre-qualified in 2006 under Bid Opportunity No. 253-2006 may bid on CIPP work in 2007 provided they satisfy the following conditions:
 - 3.3.1 The Resin Manufacturer, Tube Manufacturer, Liner System, Supplier, Installer, and Applicant remain unchanged from the Applicant's 2006 Pre-Qualification submission and the letter of Acceptance from the City for the same.
 - 3.3.2 Limitations placed on applicants pre-qualified in 2006 shall remain in effect through contracts awarded in 2007.
- 3.4 Applicants changing or amending any of their 2006 Pre-Qualification shall submit this "Request for Qualifications". Form A: Qualification Application and any changes to Form B: Qualification – Supplier and Form C: Qualification – Installer shall be completed in full, including the required back-up information (e.g. details of new Installer Personnel should be provided on Form C items 7, 8, and 9). The remaining parts of Form B: and Form C: shall be completed by writing "as per 2006" in all locations requiring written entries.
- 3.5 Qualification of Supplier's and Installer's to bid on prospective 2007 work shall not be construed as the City becoming a guarantor of the Supplier's or Installer's product or service. The Supplier and Installer shall be fully responsible for any work actually carried out in accordance with the respective specified requirements and Contract Documents.
- 3.6 At the City's sole discretion successful applicants may also be deemed to be qualified to bid on perspective projects in 2008 and 2009.

B4. Submission Deadline:

- 4.1 The Submission Deadline is 4:00 p.m. Winnipeg time, May 31, 2007.
- 4.2 Qualification Submissions determined by the Manager of Materials to have been received later than the Submission Deadline will not be accepted and will be returned unopened.
- 4.3 The Contract Administrator may extend the Submission Deadline by issuing an addendum at any time prior to the time and date specified above.

B5. Enquiries

- 5.1 All enquiries shall be directed to UMA Engineering Ltd. (the Contract Administrator), represented by:

Armand Delaurier, C.E.T.
Project Coordinator
1479 Buffalo Place, Winnipeg MB R3T 1L7
Telephone No. (204) 284-0580
Facsimile No. (204) 475-3646

- 5.2 If the Applicant finds errors, discrepancies or omissions in the Qualification Package, or is unsure of the meaning or intent of any provision therein, the Applicant 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.
- 5.3 Responses to enquiries, which in the sole judgment of the Contract Administrator require a correction to or a clarification of the Qualification Package, will be provided by the Contract Administrator to all Applicants by the issuance of an addendum at least three (3) Business Days prior to the Submission Deadline, correcting the error, discrepancy or omission, or providing clarification as to the meaning or intent of the Qualification Package.
- 5.3.1 Addenda will be available in Adobe Acrobat (pdf) format at The City of Winnipeg, Corporate Finance, Materials Management Division's Bid Opportunities internet website at <http://www.winnipeg.ca/matmgt/bidopp.asp>.
- 5.3.2 The Bidder is responsible for ensuring that he has received all addenda and is advised to check the Materials Management Division's Bid Opportunities internet website for addenda before submitting his Bid.
- 5.3.3 The Bidder shall acknowledge receipt of each addendum in Paragraph 6 of Form A: Qualification Application. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.
- 5.4 Responses to enquiries, which in the sole judgment of the Contract Administrator do not require a correction to or a clarification of the Qualification Package, will be provided by the Contract Administrator only to the Applicant who made the enquiry.
- 5.5 The Applicant shall not be entitled to rely on any response or interpretation received pursuant to the above unless that response or interpretation is provided by the Contract Administrator in writing.

B6. Submission Requirements

- 6.1 The Qualification Submission consists of the following components:
- (a) Form A: Qualification Application;
 - (b) Form B: Qualification – Supplier;
 - (c) Form C: Qualification – Installer.

- 6.2 **Two complete copies of the Qualification Submission** shall be submitted in accordance with the requirements specified herein.
- 6.3 All components of the Qualification Submission shall be fully completed or provided, and submitted by the Applicant no later than the Submission Deadline, with all required entries made clearly and completely in ink, to constitute a responsive Submission.
- 6.4 The Qualification Submission may be submitted in an 8-1/2" x 11" binder with a cover identifying the Project Title, Bid Opportunity Number, Applicant's Name, and the Liner System Name(s). Submittals shall be arranged and indexed in a manner consistent with the requirements herein.
- 6.5 The Qualification Submission shall be submitted enclosed and sealed in a package. The package must be clearly marked with the Bid Opportunity Number and the Applicant's name and address.
- 6.6 Submissions failing to clearly present all the requested information or failing to be in the format requested will be considered non responsive and shall be cause for rejection.
- 6.7 All applicable portions of the Qualification Application should be completed with additional copies of the enclosed forms or other attachments if the space provided is not adequate.
- 6.8 Application Submissions submitted by facsimile transmission (fax) or Internet electronic mail (e-mail) will not be accepted.
- 6.9 Application Submissions shall be submitted to:

The City of Winnipeg
Corporate Finance Department
Materials Management Division
185 King Street, Main Floor
Winnipeg MB R3B 1J1

B7. Qualification:

- 7.1 The Applicant shall complete Form A: Qualification Application, making all required entries.
- 7.2 In Paragraph 3 of Form A: Qualification Application, the Applicant shall identify a contact person who is authorized to represent the Applicant for purposes of the Application.
- 7.3 Paragraph 7 of Form A: Qualification Application shall be signed in accordance with the following requirements:
- (a) if the Applicant is a sole proprietor carrying on business in his own name, it shall be signed by the Applicant;
 - (b) if the Applicant is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;

- (c) if the Applicant is a corporation, it shall be signed by its duly authorized officer or officers and the corporate seal, if the corporation has one, shall be affixed;
- (d) if the Applicant 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.

7.4 The name and official capacity of all individuals signing Form A: Qualification Application shall be printed below such signatures.

7.5 All signatures shall be original and shall be witnessed except where a corporate seal has been affixed.

7.6 If a Qualification is submitted jointly by two or more persons, the word "Applicant" shall mean each and all such persons, and the undertakings, covenants and obligations of such joint Applicants in the Qualification Submission and the Contract, when awarded, shall be both joint and several.

B8. Clarifications Requested by the City

8.1 The City may require the Applicant to clarify any portion of their submission. Response to such shall be made in writing and shall become part of the document. Failure to respond in writing within five calendar days of the request shall be cause for rejection.

B9. Qualification Evaluation

9.1 Only those Applicants who have submitted this Qualifications Application and are deemed responsive by the City or have had their 2006 Qualifications extended to 2007 shall be included as pre-qualified Supplier's and Installer's of Cured-In-Place Pipe (CIPP) in tenders of this type of work in 2007.

9.2 Applicants wishing to qualify more than one Liner System, or component thereof (resin or tube), may do so under one submission providing the Supplier and Installer are the same. The Applicant shall copy the enclosed forms and provide all the required information for each Liner System. The cover of the submission shall indicate the name of each Liner System included.

9.3 Applicants may be pre-qualified to bid on all, or a portion of the prospective 2007 work based on their qualification submission and any supplemental data requested to clarify same.

B10. City to Retain Qualification Documents

10.1 All information will become and remain the property of the City, none will be returned. If the application contains any proprietary or trade secret information, said information must be indicated as such.

B11. Notification of Status

11.1 All Applicants submitting this Qualification Application shall be notified in writing regarding the acceptability of their submission.

- 11.2 Applicants will be advised as to any limitations placed on their participation in 2007 CIPP projects (e.g. based on diameter, cross section type, size of project, design methodologies, etc.).
- 11.3 Applicants will be notified of the Applicant's status pursuant to projects to be bid in 2008 in early 2008 and for projects in 2009 early in 2009.
- 11.4 The request for qualification does not commit the City to award any contracts or to defray any costs incurred in the preparation and submission of data pursuant to this request.

B12. Opening of Submissions

- 12.1 The Qualification Submissions will not be opened publicly.

PART C

TECHNICAL REQUIREMENTS

C1. General

- 1.1 The City has identified the following list of proposed CIPP Rehabilitation locations, Table C1.1, for Full Segment CIPP Lining, and CIPP Internal Point Repairs and anticipates the projects will be grouped in **three or four** Bid Opportunities. The City intends to have these Bid Opportunities issued for tender in June, 2007. The number of CIPP locations shall be considered preliminary and the City may, at their discretion, add to or delete from the list.

Table C1.1

Full Segment CIPP Lining (MH to MH)		
Diameter (mm)	Total Length (m)	Number of Locations
250	2900	32
300	2650	25
375	120	1
600	515	5
750	105	1
900-1350	175	2
CIPP Internal Point Repairs		
Diameter Range (mm)	Average Length (m)	Number of Locations
250-450	2.0	12

C2. Supplier - Materials

- 2.1 The materials of the Liner System, Tube and Resin, shall comply with the requirements of ASTM D5813 Sections 5, 6, 7, and 8, unless noted otherwise.
- 2.2 The Tube shall consist of one or more layers of fabric that are compatible with the Resin used and are capable of supporting and carrying Resin. The Tube should be capable of withstanding installation procedures and curing temperatures.
- 2.3 The Resin shall be a thermosetting polyester or vinyl ester.
- 2.4 If a calibration hose is used for inflation of the Liner System, it shall comply with the requirements of ASTM F1743 or ASTM F2019.
- 2.5 Prior to construction, the Resin manufacturer shall be required to submit a resin sample for infrared analysis. The infrared spectrum generated from this sample will be compared to the spectrum obtained from samples of the actual Resin used to wet-out the liner.

- 2.6 The minimum structural properties of the Liner System shall satisfy the requirements of Table C2.1 as per ASTM F1216, or Table C2.2 as per ASTM F2019:

Table C2.1

Component	Structural Property	Minimum Value (MPa)
Tube	Tensile Strength	5
Liner System	Flexural Strength	31
Liner System	Flexural Modulus	1724

Table C2.2

Component	Structural Property	Minimum Value (MPa)
Tube	Tensile Strength	5
Liner System	Flexural Strength	45
Liner System	Flexural Modulus	5000

- 2.7 The required portions of Form B shall be completed for each proposed Liner System or Resin and Tube combinations thereof.
- 2.8 Verification of structural properties shall be made by attaching relevant third party test results. Reports verifying structural properties shall conform to the requirements of Table C2.3

Table C2.3

Structural Property	Applicable Standard	Report Requirements
Tensile Strength (Tube)	ASTM D5035	Section 13 of ASTM D5035
Flexural Strength and Flexural Modulus (Liner System)	ASTM D790	Section 13 of ASTM D790
Long Term Flexural Creep Modulus (Liner System)	ASTM D2990	Section 13 of ASTM D2990

- 2.9 The Supplier shall submit chemical resistance results for each proposed Liner System.
- 2.10 Third party test results that do not implicitly indicate the resin and tube name on the actual laboratory report shall be supported by the following backup documentation:
- a certificate of compliance signed by a representative of the Supplier and a public notary indicating the Resin and Tube name tested on said reports, or
 - copies of the appropriate contract specifications or approved shop drawings clearly indicating the tube and resin used on and subsequently tested and reported on said reports.

C3. Supplier - Design

- 3.1 The Liner System thickness shall be designed in accordance with the requirements of ASTM F1216 Appendix X1, unless noted otherwise.
- 3.2 The Liner System shall have minimum thickness of 4.0mm, and have a maximum SDR value of 100.

- 3.3 The Supplier shall complete the required portions of Form B for the proposed Liner Systems or Resin and Tube combinations thereof.
- 3.4 The Supplier shall include a copy of an actual design procedure with calculations for a past project for circular and non-circular liners.
- 3.5 In addition to the foregoing, the Supplier shall submit the design procedures and formulas applicable to:
- (a) Assessment of pre and post-relining hydraulic capacity
 - (b) Structural design for
 - i) partially deteriorated pipe condition
 - ii) fully deteriorated pipe condition
 - iii) segment missing from host pipe
 - iv) small holes in host pipe
 - v) non-circular cross sections
- 3.6 Upon award of the Contract(s), the Supplier of the Liner System shall prepare structural design calculations for the liner thickness. It will be a requirement of the work that a Professional Engineer, licensed to practice in the Province of Manitoba, seal the designs.

C4. Supplier - Experience

- 4.1 For a Supplier to be considered qualified, each Liner System proposed shall satisfy all the requirements of this specification as well as the following:

Table C4.1

Sewer Diameter or Height (mm)	Minimum Length Installed (metres)*
less than or equal to 900	10,000
greater than 900	1,000
non-circular cross sections	1,000

*in North America

- 4.2 If requested, the Supplier shall provide a list of projects completed (prior to December 31, 2004) to explicitly satisfy the minimum length installed requirements of Table C4.1.
- 4.3 The Supplier shall identify technical personnel responsible for Liner System design, installation, and quality control procedures.
- 4.4 The Supplier shall complete Form B for each of the proposed Liner System, or Resin and Tube combination thereof.
- 4.5 Suppliers not satisfying the above requirements shall not be pre-qualified.

C5. Supplier - Installation

- 5.1 The Liner System shall be installed in accordance with ASTM F1216, ASTM F1743, and/or ASTM F2019 and the Supplier's written instructions.
- 5.2 The Supplier shall provide details of the quality control procedures to be employed and monitored during the wet out and installation of the Liner System.

C6. Installer - Experience

- 6.1 In order to demonstrate their experience with Liner Systems, the Installer shall complete Form C.
- 6.2 For an Installer to be considered qualified, they shall have direct experience with Liner System installation during at least two separate construction seasons and the minimum length requirements stipulated in Table C6.2.

Table C6.2

Sewer Diameter or Height (mm)	Minimum Length Installed (metres)*
less than or equal to 900	5,000
greater than 900	500
non-circular cross sections	500

****in North America***

- 6.2.1 The Installer shall provide details, on Form C, of projects completed to explicitly satisfy the minimum length requirements of Table C6.2.
- 6.2.2 Installers not satisfying the above requirements shall not be pre-qualified.
- 6.3 The Installer shall have in their employ, either as a direct employee or as a specialist sub-contractor, an individual(s), who will be on site at all times for work performed in the City, that has the required experience in the wet-out and installation of any large diameter and/or non-circular CIPP liners.
- 6.4 If the Installer is working under license to a Supplier, provide a copy of the license or certificate detailing the conditions of the License.
- 6.5 Upon award of the Contract(s), the Installer shall be required obtain a Sewer and Water license to work in the City and become registered to conduct business in the Province of Manitoba.