

ROOT CONTROL TECHNICAL SPECIFICATIONS

PART 1 - GENERAL

1.01 SCOPE OF WORK

Supply all labor, equipment, materials, and incidentals necessary to apply an herbicide root control product within sanitary sewer lines in order to kill the root growth present and to control regrowth without damaging the vegetation producing the roots.

1.02 SUBMITTALS

A. The Contractor shall provide shop drawings, product data, and other pertinent information as follows:

1. Safety Data Sheet (SDS)
2. Product Specimen Label.
3. Registration with US EPA.
4. Registration with MDARD.

B. Experience and Qualifications

Bidders must be licensed with the Michigan Department of Agriculture & Rural Development (hereafter, MDARD) prior to the bid date. All bidders must have a minimum level of pesticide application experience with the product submitted, (see Part 6) and employ a MDARD certified pesticide applicators on every job site at all times. The contractor must submit certificates for three current employees with valid certificates of completion of a course in a confined space rescue training in accordance with the Federal Regulation CFR 29 1910.146 that pertains to manhole entry. Certificates must apply to field personnel the contractor intends to have work on the project specified herein. Contractors must provide the necessary references and documentation with the bid (see reference page attachment).

1. Applicator license/certification with the MDARD. Experience records to demonstrate a minimum of 500,000 feet of sewer applications as a Certified Pesticide Applicator. See Part 6.04
2. Experience records to demonstrate a minimum of three projects completed and each project exceeding 200,000 linear feet of direct experience in applying chemical sewer root control of the type specified. See Part 6.03
3. Project experience to indicate the staffing and equipment capable of performing work consistent with the needs of this contract on an immediate basis.

1.03 TRANSPORTATION, STORAGE, AND PROTECTION

All materials shall be transported, stored, and protected in accordance with manufacturer's recommendations and applicable Federal and State guidelines. Liquid chemicals must be packaged in mini-bulk containers that are designed for re-use with dry lock connectors, as part of a closed chemical handling system. Disposable pesticide containers will not be accepted for use on this project.

PART 2 - PRODUCTS

2.01 ROOT CONTROL PRODUCT

- A. The root control product shall be registered with the US EPA and the MDARD, **prior to the bid opening**, and shall be labeled for use in sewers to control tree roots. The root control product shall contain an active ingredient for killing sewer roots and controlling their regrowth. There shall also be a surfactant system to deliver the active ingredient (herbicide) to the target root tissue.
1. Active ingredient:
 - a. Shall not be labeled "RESTRICTED USE: DUE TO ACUTE TOXICITY" by the US EPA.
 - b. Must be currently classified by the US EPA as a non-carcinogen, i.e. as "Not Likely to Be Carcinogenic to Humans" under either the 1985 or 2005 classification systems.
 - c. Must be non-volatile in order to prevent inhalation and/or exposure to workers, homeowners and the general public in the vicinity of treated areas.
 2. Surfactant system:
 - a. Must produce a dense, small bubble, clinging foam, which sustains its shape for minimum of one hour.
 - b. Must enhance the penetration of herbicide into root masses.
 - c. Products that generate foam chemically, upon contact with water **shall not be accepted**.
- B. Substitutes and Proven Equivalents:

Should the Contractor wish to use any product other than specified herein, must submit complete descriptive literature naming the proposed substitution and manufacturer and must be approved in writing prior to the bid date.

PART 3 - APPLICATION

3.01 MANNER OF APPLICATION

- A. All work must be performed by on-site MDARD certified applicator and be performed according to label instructions. All applications shall be done by foaming or methods provided on the product label.

The application of the product shall be performed in such a way as to contact roots within the main line sewer to be treated. Effort will also be made to penetrate lateral sewers in order to contact roots residing in the "wye" connections. The foam must be generated through the use of air injection equipment, and the foam must be pumped in to the sewer under low pressure. Foam quality must be sufficient to effectively treat all pipe diameters. Products designed to generate foam on contact with water **shall not be accepted**.

- B. Due to efficacy and risk of exposure, high pressure application equipment shall not be used prior to or during the treatment process.

- C. Manholes used to access a main line sewer section for treatment must be treated as part of the main line treatment and included as part of the main line section price per foot. The Contractor must fully cover the inside manhole wall with a three inch coating of foam within twelve inches of the road/ground surface. The Contractor must incorporate a treatment method that complies with all safety and label instructions of the pesticide product accepted for use.

3.02 NOTIFICATION OF WASTEWATER TREATMENT PLANT

The Contractor shall take all steps necessary to prevent adverse effects on wastewater treatment plant (hereafter, WWTP) processes.

The Contractor attests, through submittal of this bid and entering into this contract, that the Contractor is expert in this type of work and understands the risks posed by this type of work on WWTP processes. The Contractor shall not rely on the Owner for guidance in this regard.

Introduction of any products in any collection system must be with the approval of the appropriate WWTP personnel and the Contractor must notify appropriate WWTP personnel of the date and time of all intended work, and provide information requested, including specimen product labels and Safety Data Sheets, for any products introduced to the collection system.

The Contractor will provide names and phone numbers of individuals responsible for the application of the products.

The Contractor shall be financially responsible for any adverse effects on WWTP processes caused by the product applications, including but not limited to the following: damages to plant processes or equipment, clean-up and restoration costs, fines imposed on the Owner or on the operator of the WWTP by State or Federal agencies, pollution of receiving waters, and civil suits. The Contractor shall further indemnify and hold harmless the Owner and the operator of the WWTP, against all costs, including legal expenses, relating to WWTP failure or other damages or pollution caused by the application of products by the Contractor.

3.03 POLLUTION LIABILITY INSURANCE

The pollution liability insurance described herein is in addition to all other insurance required by the Owner.

At the time of the bid opening, the contractor shall submit insurance certificates showing pollution liability coverage. This coverage shall protect the contractor, the agency, and the agency's officer, agents and employees from claims for damages for bodily or personal injury, sickness or disease, including death, and from claims for damages to property and/or the environment, which may arise directly out of the use of chemicals and/or pollution. The minimum amount of such insurance shall be **five million (\$5,000,000.00) dollars** total loss. This insurance shall be provided to the contractor by an insurance company that holds at least an "a" rating by a.m. best rating service. Nothing contained in this section shall be construed as limiting the extent of the contractor's responsibility for payment of damages resulting from his operations under the contract.

PART 4 - REPORTING AND DOCUMENTATION

4.01 REPORTS ON COMPLETED WORK TO BE PROVIDED BY THE CONTRACTOR

- A. Upon completion of the project and accompanying the invoice, or whenever requested to by the Owner, the Contractor shall submit reports which show the following information:
1. The name of the Owner
 2. The report date
 3. The date each given sewer line was treated
 4. Street name for each given sewer line
 5. A description (manhole numbers, house numbers, cross streets, etc.) which will enable the Owner to accurately identify the exact location of each sewer line
 6. The pipe size for each given sewer line
 7. The length (manhole to manhole) for each given sewer line
 8. The date the guarantee expires on each given sewer line

In addition, all reports shall be provided in an acceptable software form, and formatted for a program designated by the owner at the time of billing.

PART 5 - GUARANTEE

5.01 REQUIREMENTS

For each sewer section (manhole-to-manhole) that is treated under the Contract, the Contractor shall guarantee the work as follows.

At the option of the Owner, the Contractor shall, at his own expense, re-treat a sewer section, or refund 100% of the payment received to treat that section, in the event that: (1) live roots are found in the section within six months after the application; or, (2) the section plugs up due to tree root obstructions within a period of two years, beginning the date of treatment, and ending two years after the date of treatment.

Retreatments, performed at no charge in honor of the guarantee, do not extend the expiration date of the guarantee.

The guarantee applies only to main line sewer stoppages caused by tree roots. It does not apply to stoppages caused by grease or other foreign matter; flat, collapsed or deformed pipe; or flooding caused by a surcharged or plugged sewer section downstream from a guaranteed sewer section. The Contractor is not responsible for damage caused by main line stoppages.

The decision of the Owner as to the cause of a stoppage is binding.

The Contractor shall be required to return periodically, at the Contractor's sole expense, for the purpose of performing free re-treatments as required under the guarantee.

PART 6 - QUALIFICATION SUBMITTALS

6.01 ENVIRONMENTAL HAZARD SUBMITTAL

Complete the attached questionnaire and submit with bid.

6.02 CONTRACTOR'S QUALIFICATION SUBMITTAL

Complete the attached qualification form and submit with bid.

6.03 CONTRACTOR'S EXPERIENCE SUBMITTAL

The Contractor must submit three municipal projects as references for chemical sewer root control work which the agency can verify. Each reference must meet or exceed a project size of 200,000 linear feet. Each reference must be for work actually performed by the Contractor within the last five years. All references must pertain to actual root control work performed by the Contractor (sub-Contractor references are not applicable). Reference work shall have been performed with the product submitted, and the manner of application specified herein. Previous work for the agency is applicable. Reports and invoices for completed work shall be submitted to verify experience.

6.04 PESTICIDE APPLICATOR EXPERIENCE SUBMITTAL

Certified pesticide applicators shall have a minimum five years experience in performing the type of work specified, while licensed as a state-certified pesticide applicator. To be considered as qualifying experience, experience must meet the three following requirements: 1) the experience must be obtained as a state licensed and certified applicator, and 2) the experience must have been obtained while the applicator was in the employ of the bidder, and, 3) the experience must be for the applications of the product submitted herein. Each certified pesticide applicator shall have personally performed a minimum of 500,000 linear feet of treatments as a certified pesticide applicator. The Contractor must submit a list of three (minimum) employees that are certified with the MDARD, and that meet these requirements with the bid. Complete the attached questionnaire for each applicator and submit with bid.

PART 7 - CONTRACT PERIOD

- 7.01** The initial term of the contract shall be for the period of five years. Price changes for years two through five shall be adjusted in accordance with the consumer price index for the Owner's locale.

PROPOSAL PRICE PAGE
(Submit with Bid)

Sewer line chemical root control, including all labor, materials, equipment and associated costs, shall be paid for at the unit price bid per linear foot of each size pipe. Unit prices are to be computed per linear foot manhole-to-manhole.

PIPE SIZE	UNIT PRICE PER LINEAR FOOT	ESTIMATED FOOTAGE	TOTAL PRICE
6 inch			
8 inch			
10 inch			
12 inch			
15 inch			
18 inch			
21 inch			
Additional Manholes*			
Sum Total Price (in figures)			

* Manholes not directly connected to main-line sections of pipe specified for treatment.

The Owner reserves the right to reject any or all bids. Bidders are cautioned not to attach any conditions, limitations, or provisions to the proposal as such conditions, limitations or provisions will render their bid informal and cause its rejection.

Submittals: Failure to enclose the following will render this bid non-responsive and result in the rejection of this bid. Indicate whether the following are enclosed.

Yes	No	
		Proposal Price Page
		Specimen Label
		Safety Data Sheet
		Pollution Liability Insurance Certificate
		Environmental Hazard Submittal
		Contractor's Qualification Page
		Contractor's Reference Page
		Pesticide Applicator Experience Submittal
		Confined Space Entry Certificates

**ENVIRONMENTAL HAZARD SUBMITTAL
(Submit With Bid)**

Complete the following questionnaire with respect to the product submitted for use by the bidder.

1. Check the US EPA classification for the submitted product.

Restricted use ___ General use ____

2. What are the Active Ingredients in the product submitted? _____

3. Check the classification the U.S. Environment Protection Agency has assigned to the active ingredient(s) in your product with regards to whether it causes cancer:

✓	1985 Classification
	Human carcinogen
	Probable human carcinogen
	Possible human carcinogen
	Not classifiable as to Human Carcinogenicity
	Evidence of Non-carcinogenicity for humans

✓	2005 Classification
	Carcinogenic to humans
	Likely to be carcinogenic to humans
	Suggestive evidence of carcinogenic potential
	Inadequate information to assess carcinogenic potential
	Not likely to be carcinogenic to humans

4. Volatile organic compounds (VOC) present an inhalation exposure hazard to humans. Does the product submitted contain active herbicide(s) that are considered (VOC) at ambient temperatures. Yes ____, No ____.

If yes, list the volatile herbicide(s) below: _____

CONTRACTOR'S QUALIFICATION SUBMITTAL
(Submit With Bid)

Failure to complete this page in full, and to provide valid, existing licenses and insurance, as required, will render this bid non-responsive and result in the rejection of this bid.

Contractor name: _____

Street Address: _____

City/State/Zip: _____

Contractor's MDARD Pesticide Business license #: _____

Contractor US DOT #: _____

Brand name of proposed chemical root control product: _____

US EPA root control product registration #: _____

MDARD root control product registration #: _____

Does the Contractor have pollution liability insurance as specified? Yes ___ No ___

Contractor's pollution liability insurance carrier: _____

What is the current a.m. best rating for your pollution insurance carrier? _____

Using the product submitted, does the Contractor have:

1. A minimum 5 years of experience? Yes ___ No ___
2. A total of 500,000 linear feet completed in the type of work specified? Yes ___ No ___
3. Three other jobs completed, each consisting in excess of 25,000 linear feet, which the owner can verify? Yes ___ No ___

Is a product label and Safety Data Sheet (SDS) attached? Yes ___ No ___

As per federal code 29 CFR 1910.146, are certificates of completion in confined space entry training attached for all pesticide applicators listed below? Yes ___ No ___

Contractor's MDARD Certified Pesticide Applicators
(List 3 minimum)

1. Name: _____ Certification #: _____ Years of Experience: _____

2. Name: _____ Certification #: _____ Years of Experience: _____

3. Name: _____ Certification #: _____ Years of Experience: _____

**CONTRACTOR'S ROOT CONTROL REFERENCE PAGE
(Submit With Bid)**

The Contractor must submit three municipal references of similar scope using the product submitted, which the owner can verify.

Owner/Agency:	
Address:	
City, State, Zip:	
Contact & Phone:	
Footage Treated:	
Date of Treatment:	

Owner/Agency:	
Address:	
City, State, Zip:	
Contact & Phone:	
Footage Treated:	
Date of Treatment:	

Owner/Agency:	
Address:	
City, State, Zip:	
Contact & Phone:	
Footage Treated:	
Date of Treatment:	

Only experienced Contractor's in this type of work will be considered for award. Failure to provide sufficient verifiable references will result in rejection of this bid.

