

BURLINGTON PUBLIC WORKS
REQUEST FOR PROPOSALS
Mainline Sewer Camera inspection system

INTRODUCTION

Burlington Public Works is requesting proposals from manufacturer's representatives for a mainline sewer camera inspection system. The city is looking for a user friendly camera system capable of filming 6" to 30" diameter pipe(s) at a minimum. Camera specifications will be explained in further detail below.

It is the intent of this specification to provide for the purchase of one (1) complete color video pipeline inspection system, ready for operation. The system shall be capable of conducting video inspection of 6" through 30" diameter pipes. The system shall inspect underground sewer and storm water piping and related connections from a single access point. It is also the intent of this specification to provide for the purchase of one (1) license for database management software for use with video inspection system.

The electrical system must be tested for both wet and damp environment safety. Two valid certificates from a NRTL (Nationally Recognized Testing Laboratories) must accompany each proposal. One certification to comply with Federal OSHA 29 CFR 1910 303 (a) and resulting in UL 60950-1:2003 and CAN/CSA-C2.22 No. 60950-1:2003 electrical safety system standard and a second to comply with IP68 (IEC 60529 or NEMA 250) standard for NEMA enclosure type 6P components that are inserted into the pipeline and offer protection for the equipment and operator in wet and damp environments.

The City of Burlington has evaluated different types of television inspection systems. This specification is not to be interpreted as restrictive, but rather as a measure of the safety, quality and performance against which all television inspection systems bid will be compared.

In comparing proposals, consideration will not be confined to price only. The successful bidder will be one whose product is judged to best serve the interests of the City of Burlington when price, product, safety, quality and delivery are considered. The City of Burlington reserves the right to reject any or all bids or any part thereof, and to waive any minor technicalities. A contract will be awarded to the bidder submitting the lowest responsible bid meeting the requirements of this specification.

EQUIVALENT PRODUCT

Bids will be accepted for consideration on any make or model that is equal or superior to the television inspection system specified. Decisions of equivalency will be at the sole interpretation of the City of Burlington. A blanket statement that equipment proposed will meet all requirements will not be sufficient to

establish equivalence. Original manufacturer's brochures of the proposed unit are to be submitted with the proposal. All modifications made to the standard production unit described in the manufacturer's brochures must be certified by the manufacturer to have been in prior successful use (including the name of users) and submitted with the bid, or the bid will be deemed "non-responsive" and rejected without further review. Bidder must be prepared to demonstrate a unit similar to the one proposed, if requested.

INTERPRETATIONS

In order to be fair to all bidders, no oral interpretations will be given to any bidder as to the meaning of the specification documents or any part thereof. Every request for such a consideration shall be made in writing to the City of Burlington. Based upon such inquiry, The City of Burlington may choose to issue an Addendum in accordance with state statutes.

GENERAL

The specification herein states the minimum requirements of the City of Burlington. All bids must be regular in every respect. Unauthorized conditions, limitations, or provisions shall be cause for rejection. The City of Burlington will consider as "irregular" or "non-responsive" and reject any bid not prepared and submitted in accordance with the bid document and specification, or any bid lacking sufficient technical literature to enable the City of Burlington to make a reasonable determination of compliance to the specification.

It shall be the bidder's responsibility to carefully examine each item of the specification. Failure to offer a completed bid or failure to respond to each section of the technical specification (COMPLY: YES NO) will cause the proposal to be rejected without review as "non-responsive". All variances, exceptions and/or deviations shall be fully described in the appropriate section. Deceit in responding to the specification will be cause for automatic rejection.

A. Specification: Steerable Motorized Crawler

A.1 The system shall include a gear driven; six wheel drive tractor to carry the camera for rapid remote inspection of pipes ranging from 6" to 30" diameter. The crawler must have NRTL approval for IP68 (IEC60529) or NEMA 6P (NEMA250) enclosure type ratings to offer protection for the operator and equipment in wet and damp environments.

Comply: Yes No

A.2 The crawler shall have forward/reverse and left/right steerable movement via the pendant control on the CCU. The tractor must allow for forward/reverse and left/right steerable movement to happen simultaneously to increase productivity.

Comply: Yes No

Specification: Steerable Motorized Crawler (continued)

A.3 The tractor shall include at a minimum wheels and spacers suitable to accommodate pipe inspection in 6" through 30" pipes. The kit should include tires for PVC pipe and also grease wheels with traction grit impregnation.

Comply: Yes No

A.4 The system shall include low profile tri-LED auxiliary light that combine a rear-view camera that is remotely controlled via a rheostat controller on the portable hand held and studio desk top operator pendants.

Comply: Yes No

A.5 Crawler must have low profile integral (not an attachment) sonde with no greater than a 4mm raised profile for signal transmission. Crawlers without this feature will be deemed unacceptable.

Comply: Yes No

A.6 Crawler must allow for operating the rear viewing camera, auxiliary lighting and sonde at the same time.

Comply: Yes No

A.7 The tractor shall have a strain relief system for the cable that is comprised of (2) high strength steel cables.

Comply: Yes No

A.8 The tractor must have an integral inclinometer as standard for tracking and electronically outputting pipe rise and fall (grade) and integrate data with database inspection software. Tractors without a standard inclinometer will be deemed unacceptable.

Comply: Yes No

B. Specification: Zooming Pan/Tilt Color Camera

B.1 Pan and tilt will have mechanical stops to avoid slip-ring maintenance issues and prevent camera from inadvertently being directly positioned into dirty flow at bottom of pipe.

Comply: Yes **No**

B.2 Camera must have 10X optical 4X digital zoom capability for viewing up laterals and magnifying observations, and also a rear view camera.

Comply: Yes **No**

B.3 Camera construction shall include all solid-state circuitry designed to withstand shocks and vibrations while being pushed, pulled or propelled through the pipe.

Comply: Yes **No**

B.4 All camera electronics shall be of modular construction for ease of exchange and repair, and shall be designed to facilitate future upgrades.

Comply: Yes **No**

B.5 The front of the camera housing shall have a windshield made of impact resistant, distortion-free material. The windshield shall be field replaceable by a single tool. Multiple tools or removal of several parts shall be deemed unacceptable

Comply: Yes **No**

B.6 The housing shall be fully sealed and waterproof (IP68) to withstand external pressure up to 15 psi without damage or leaking.

Comply: Yes **No**

B.7 The following camera functions must be able to be controlled from the operators studio as well as at the rear of the truck via a remote pendant:

Single click for normal Zoom IN/OUT.

Double Click same button for full IN/OUT Zoom position.

Hold down for longer than 1.5 sec for fast zoom IN/OUT.

Shutter speed button for Up, Down and Auto.

Focus button for far, near and auto.

Button for centering pan and tilt to center forward position.

Comply: Yes No

C. Specification: Rack-Mounted Camera Control Unit

A fully integrated camera, lighting, and crawler control system, built into rack-mounted chassis's for installation in a built in control console consisting of a Power Control Unit (PCU) and a Camera Control Unit (CCU) shall be provided.

Power Control Unit (PCU) portion of the Control Center must be capable of operating a mini camera, pan & tilt camera, pan & tilt zoom camera used with skids or a steerable tractor without the use of external adapter modules.

The PCU shall provide all the necessary power to operate and monitor the television inspection system. All circuits shall be of solid state design. Circuits shall be isolated to provide operator protection from electrical shock hazards.

Comply: Yes No

D. Specification: Motorized Auto-Sensing Speed/Payout/Retrieval Cable Drum

D.1 A cable drum shall be provided to contain the cable for camera and crawler operation

The hub of the cable drum shall be equipped with a continuous contact slip-ring assembly to allow the cable to be dispensed and retrieved while the camera and tractor are operational.

Comply: Yes No

D.2 Cable feed out and retrieval must happen automatically via a motorized system with sensors that operate the cable drum at the exact speed and direction of the crawler. Cable drums without automatic speed, cable feed out and retrieval shall be deemed unacceptable

Comply: Yes No

D.3 Cable reel must have a level wind system which neatly rolls and stores cable without excessive loops or tangling.

Comply: Yes No

D.4 System must have back-up manual crank arm in case of power loss.

Comply: Yes No

D.5 Front panel must have LCD readout of footage.

The footage counter shall measure passage of the cable from the wheel graduated in 0.1-foot steps.

The footage counter shall function electronically and transmit footage data for monitor display and video recording

Comply: Yes No

D.6 A minimum of 600 feet of continuous length multi-conductor cable shall be provided. The exterior of the cable shall consist of a minimum 1/16" thick abrasion resistant outer jacket embedded with Kevlar fibers to provide the cable with the required towing tensile strength.

Comply: Yes No

E. Training Install and Accessories:

Two (2) days of initial hardware training on the camera system to be performed by a factory trained specialist.

Comply: Yes No

F. Computer, Monitors and Recorder

At a minimum, a DVD Recorder, (2) 15 inch LCD flat panel monitors, and a 17 inch LCD computer monitor shall be included and mounted in the trailer. One 15 LCD monitor in each the operators area and the equipment area. The 17 inch computer monitor must be desk mounted in the operator's area. A rack mounted computer suitable of running the specified database software must be included with the following minimum requirements. 2 gig RAM, 2x 250 gig hard drive, PCI digital capture board, shock absorbing case, wireless card, keyboard and mouse.

Comply: Yes No

G. Camera Retrieval accessories

The proper equipment shall be provided to lower and retrieve the camera, as well as protect the cable from being damaged at the manhole and invert. Please include a description of the manufacturer's equipment that will be included to do this.

Comply: Yes No

H. 7X10 Single Axle Trailer

Trailers must have full width dual swing out rear doors and single front curbside door, torflex axels, 3,500-7,000 GVWR. Electric brakes, painted white.

Power Packages

6.0 Honda Electric start gas generator(or equivalent) tongue mounted

Operators Area:

All operators area build outs include a bulkhead wall with 18" pass through door, gray rubber sheeting desk surface, over desk rear facing rack mount for components with an access door on the side. One 2' overhead fluorescent light, oversized tinted Plexi-glass window in bulkhead wall, operators chair and several wall outlets. An internal/external video selector will be desk mounted. The walls will be factory finished plywood and painted white. The ceiling will be covered with dark colored carpeting. The floor will be covered with black diamond pattern industrial rubber flooring. Electrical packages include a Shore Power Cord and Breaker Box with 12V converter. Roof Mounted 13,500 BTU Air Conditioner with 5,600 BTU Heat Strip.

Equipment Area

All equipment area build outs include a heavy duty storage/tool chest with work bench top. There will be One 2' ceiling mounted fluorescent light. The walls will be covered with factory finished plywood and painted white. The ceiling will be covered with white FRP.

There will be 2- GFI wall outlets. The floor will be covered with black diamond pattern industrial rubber flooring. An external BNC video input connection and 12VDC socket will be place at the rear of the trailer.

Roof mounted work area flood lights (2)

Tool package: Manhole hook, sledge, pry bar, shovel wall mounted.

Slide/Swivel platform for cable reel

Wash down system to include:10-20 gallon tank, 25' retractable hose reel, pump, front carpeted bench, and a large diamond plate crawler drawer

Under the cable reel for crawler storage.

Exterior lighting:

Rear roof mounted arrow board with yellow beacon

All vehicle build outs include the following accessories:

Hand sanitizer

Waterless soap

Paper towels

Rubber Gloves

First Aid Kit

Fire Extinguisher

Rain X

409 surface cleaner

Dry Erase Board

Boat Clamp on rear driver side

Wall mounted shelf

Wall mounted pendant tray

Sewer Camera inspection system shall be installed, secure and ready for operation prior to deliver

Comply: Yes No

I.Database Software Package

Due to the proprietary nature of software packages, please include an attachment that describes the proposed software. At a minimum, the software shall generate PACP compliant reports. Additional options or modules that are not part of the basic package should be included and labeled as optional with the additional amount to purchase clearly marked.

Software Training

The vendor shall provide two days of on-site, at our location, training. The vendor's trainer shall be a Certified Trainer for the company that developed the software.

Comply: Yes No

J. Limited Warranty

At a Minimum, there shall be a two year limited warranty on defects in materials and manufacturing of the Camera equipment. Please attach more specific details on the manufacturer's warranty.

Comply: Yes No

ISSUING OFFICE AND POINT OF CONTACT:

This request for proposals is issued by the Public Works Department of the City of Burlington. Questions on the RFP shall be directed to:

Tim Grover, Chief Operator
Burlington Main & North WWTP
53 Lavalley Lane
Burlington, VT 05401
Phone: (802) 862-6565 Fax: (802) 864-7653
e-mail: tgrover@ci.burlington.vt.us

FORMAT OF PROPOSALS:

Respondents are required to be concise. Proposals shall include, but are not limited to the following:

1. Letter of Transmittal and four (2) copies of the Proposal. *In lieu of the above proposal in paper format, a proposal can be e-mailed to the contact person above by the due date/time in an Adobe pdf file format.*
2. Delivery and training timeline from acceptance of Proposal.
3. A client list on the equipment to be provided, including year purchased and contact person(s).
4. Name and phone number of primary contact person.

PROPOSAL EVALUATION:

Proposals will be evaluated by the Wastewater and Engineering Divisions of Public Works. The City of Burlington reserves the right to seek clarification of any proposal submitted and to select the proposal considered to best promote the public interest.

DEADLINE FOR RECEIPT OF PROPOSALS:

All replies and proposals in response to this RFP must be received in a sealed envelope and clearly marked as "Burlington Public Works Mainline Sewer Inspection System" at the address shown above not later than 2:00 PM on Friday, February 26, 2010 at which time they will be recorded. Submittals received after the due date will not be considered. *Once again, in lieu of the above proposal in paper format, a proposal can be e-mailed to the contact person above by the due date/time in an Adobe pdf file format.*

REVISIONS TO THE REQUEST FOR PROPOSALS:

If it becomes necessary to revise any part of the RFP, addendums will be sent to all those who received the original document.

REJECTION OF PROPOSALS:

The City of Burlington reserves the right to reject any and/or all proposals, and to award the contract in what is considered to be the City's best interest.

OWNERSHIP OF DOCUMENTS:

Plans, specifications, basis of designs, electronic data, designs and reports prepared under any agreement between the Representative and the City shall become the property of the City. Records shall be furnished to the City by the Representative upon request at any time; however the Representative may retain copies of the original documents.

All proposals become the property of the City of Burlington upon submission. The cost of preparing, submitting and presenting a proposal is the sole expense of the Representative. The City of Burlington reserves the right to reject any and all proposals received as a result of this solicitation, to negotiate with any qualified source, to waive any formalities and any technicalities or to cancel this RFP in part or in its entirety if it is in the best interest of the City of Burlington. This solicitation of proposals in no way obligates the City of Burlington to award a contract.

EXPLANATIONS OF NON-COMPLIANCE